

Pan-Pacific Conference XXVIII

Corporate Strategies for the Green World

May 26-29, 2011
Daejeon, Korea



Edited by

Sang M. Lee
Seongbae Lim
Atsuto Nishio

Publication of the Pan-Pacific Business Association
in cooperation with
Woosong University, Korea

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A Message from the Program Chair

This publication represents proceedings of the Pan-Pacific Conference XXVIII being held in Daejeon, Korea. The Pan-Pacific Conference has served as an important forum for the exchange of ideas and information to promote understanding and cooperation among the peoples of the Pacific-Rim countries. This year's conference theme, "Corporate Strategies for the Green World," is especially appropriate in view of the emerging importance of environmental sustainability as a global goal and vision. This year's conference venue, Daejeon, Korea, has a special meaning. As you know, our original plan for the 2011 conference was Tokyo, Japan. Professor Atsuto Nishio of Takushoku University worked extremely hard to prepare for the conference, working closely with corporate sponsors, universities, and the Metropolitan Hotel. However, the tragic natural disasters of earthquakes and the ensuing tsunami made it almost impossible to hold the conference in Tokyo. As our top priority is the safety and security of our conference participants, Professor Nishio and I agreed that we must change the conference site. We were gratified by the prompt and positive response of Woosong University leaders to take on the challenge of hosting the conference with three months notice. We are especially indebted to Chairman Sung-Kyung Kim of the Board of Trustees, Dr. Seongbae Lim of St. Mary's University, USA, and Dr. Sung Tae Kim of SolBridge International School of Business of Woosong University for their leadership in quickly preparing for the conference.

This year's conference in Daejeon will have several familiar but different features. On May 26, there will be three interesting activities: The Sightseeing Tour of the Baekje Kingdom Sites (gather at the hotel lobby 9:00 AM), Plant Tour of LG Electronics in Pyungtak (gather at hotel lobby 8:30 AM), and the Golf Tournament at Yousung Country Club (gather at hotel lobby 7:00 AM). The Welcome Reception and Cultural Shows will be at 7:00 PM at Yousung Hotel Ball Room. On May 27, the Opening Plenary Session will start at 9:00 AM SolBridge International School of Business (bus transportation will be provided at 8:00 AM). The first keynote speaker at the Plenary Session will be the Honorable Mayor of Daejeon Mr. Hong-chul Yum who will discuss the green initiatives of Daejeon City. The second keynote speaker will be Dr. Sang-Chul Lee, Vice Chairman of the LG Group who will discuss the new trends in value creation through the convergence with mobile technologies. Following the keynote speakers and the coffee break, the Plenary Panel on "Government and Corporate Strategies for the Green World" will feature several experts: Mr. Wan Bae Rha, President of GS Caltex, Korea, Mr. Xiaoguang Fang, CEO of FG Consulting, China; Dr. Gerhard Roodt, Professor of University of Johannesburg, South Africa; and Dr. Jann Hidajat Tjakraatmadja, Professor of the Bandung Institute of Technology, Indonesia.

Pan-Pacific Conference Peer Review Process

All papers/abstracts for the conference are submitted electronically through the Pan-Pacific Conference website (<http://www.panpacificbusiness.org>) by the designated deadline. All submitted papers are double-blind reviewed by at least two experts in the field of business. Each submission is reviewed for (1) relevance to the conference theme; (2) quality of the paper in terms of its theoretical foundation and significance of the topic; and (3) appropriateness of the methodology used. The submission is judged to be Accepted, Rejected, or in need of Revision. For those submissions needing revision, the author is notified of the reviewers' suggestions and encouraged to submit the final paper with appropriate changes. All revised papers for the Proceedings publication undergo the second round of the double-blind review process. The review committee rejects submissions that are not deemed of high quality, relevant to the conference theme, or complete in terms of following the reviewers' suggestions for revision. All accepted submissions in the appropriate format are published in the Proceedings of the Conference. This Proceedings contains the accepted papers that were blind refereed by two reviewers and condensed to allow for a reasonable size publication.

We welcome everyone to Daejeon, Korea and hope the conference will be another success in terms of learning from each other and renewing our friendship.

We wish to welcome all participants to the Pan-Pacific Conference XXVIX in Hainan Island, China next year. Please watch for information as it will be posted on the Pan-Pacific Business Association website (www.panpacificbusiness.org).

Sang M. Lee, Program Chair
University of Nebraska, USA

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The Pan-Pacific Business Association

The Pan-Pacific Business Association (PPBA) emerged from two U.S. – Japan Business Conferences held at the University of Nebraska in 1981 and Tokyo, Japan, in 1983. These Conferences led to the formation of the PPBA in 1984 with the first PPBA Conference being held in Hawaii that same year.

The basic goal of PPBA is to provide a forum for scholars, executives, and government officials from Pacific Rim countries to discuss important issues relating to a better quality of life in this region. Emphasis has been placed on more effective utilization of human resources, technology, and multilateral economic activities across the borders.

The primary focus of PPBA has been its annual international conference, which usually attracts 400 participants from more than 30 countries. The conferences have been held in such locations as Honolulu, Seoul, Taipei, Singapore, Sydney, Kuala Lumpur, Calgary, Beijing, Bangkok, Dunedin-Queenstown, Chiba, Fiji, The Gold Coast, Viña Del Mar, Anchorage, Shanghai, Busan, San José, Shenzhen and Bali.

The objectives of the PPBA are:

- To provide business scholars, executives, and government officials from the Pacific countries an opportunity to discuss industrial and trade policies of their respective countries.
- To help management scholars and practitioners assess the adaptability of various new management approaches to their own business environments. Emphasis is placed on networked organizations, productivity improvement, quality management, employee empowerment, modern technology-based management systems, and world-class organizations.
- To help business practitioners and scholars gain an understanding of the socio-cultural background of the economies and businesses in various Pacific countries.
- To facilitate the development of research and the exchange of ideas for promoting international economic activities in the Pacific region.
- To assist in the establishment of export education programs through cooperative arrangements with regional and world trade centers and bilateral and multilateral trade associations.

For additional information on PPBA, please contact us at: <http://www.panpacificbusiness.org>

PAN-PACIFIC CONFERENCE XXVIII

Yousung Hotel
SolBridge International School of Business
Daejeon, Korea

PROGRAM AT A GLANCE

THURSDAY, MAY 26, 2011

DAYTIME ACTIVITIES AND EVENTS

7:00	Golf Tournament – Yousung Country Club Gather in hotel lobby
8:30	Plant Tour LG Electronics, gather in hotel lobby
9:00	Sightseeing Tour Baekjae Kingdom Tour, gather in hotel lobby
15:00 – 19:00	Registration desk is open for the Pan-Pacific Conference Hotel Lobby
19:00 – 21:00	Opening Reception and Cultural Performance Yousung Hotel Ball Room

PROGRAM AT A GLANCE

FRIDAY, MAY 27, 2011

MORNING

All sessions will be held at the SolBridge International School of Business.

7:30 – 9:00	Conference Registration SolBridge International School of Business
9:00 – 10:10	Opening Plenary Session
	Opening Sang M. Lee, President of PPBA, USA
	Keynote Speech: The Honorable Hong-chul Yum, Mayor of Daejeon City “Daejeon Metropolitan City Green Initiatives”
	Keynote Speech: Dr. Sang-Chul Lee, Vice Chairman, LG Group “The Opportunities and Challenges of the New ICT Era”
10:10 – 10:40	Coffee Break
10:40 – 12:00	Plenary Panel Discussion: Government and Corporate Strategies for the Green World
	Moderator: Sang M. Lee, President, PPBA, USA
	Panelists: Wan Bae Rha, President, G.S. Caltex, Korea Xiaoguang Fang, CEO, F.G. Consulting, China Gerhard Roodt, University of Johannesburg, South Africa Jann Hidajat, Bandung Institute of Technology, Indonesia
12:00 – 1:30	Lunch (Individual)

FRIDAY, MAY 27, 2011

AFTERNOON

All sessions will be held at the SolBridge International School of Business.

13:30– 15:00 Concurrent Sessions

ROOM	1001	1004	1006	1009	901	905
SESSION CODE	FP11	FP12	FP13	FP14	FP15	FP16
SESSION TOPIC	Corporate Strategies	Strategies for the Green World	Behavior in Organizations	Topics in International Marketing	Current Topics in Behavior and Leadership	Green Information Technology

15:00 – 15:30 Coffee Break

15:30 – 17:00 Concurrent Sessions

ROOM	1001	1004	1006	1009	901	905
SESSION CODE	FP21	FP22	FP23	FP24	FP25	FP26
SESSION TOPIC	Strategies for Green Sustainability	Strategic Analysis of the Air Transport Industry	Education and Globalization	IT Technology for the Smart and Green World	IT and Cloud Computing	Research in Competitive Strategies

PROGRAM AT A GLANCE

SATURDAY, MAY 28, 2011

MORNING

7:30 – 15:00 Conference Registration Desk is open at SolBridge

8:30 – 10:00 Concurrent Sessions

ROOM	1001	1004	1006	1009	901	905
SESSION CODE	SA11	SA12	SA13	SA14	SA15	SA16
SESSION TOPIC	Service Quality and Customer Value	Topics in Tourism Management	Topics in International Economics	Technology, Knowledge, and Innovation	Innovation in the Medical Industry	Information Systems and Applications

10:00 – 10:30 Coffee Break

10:30– 12:00 Concurrent Sessions

ROOM	1001	1004	1006	1009	901	905
SESSION CODE	SA21	SA22	SA23	SA24	SA25	SA26
SESSION TOPIC	Current Issues in Information Systems	Contemporary Issues in Leadership	Research in Entrepreneurship	International Trade	Green Marketing Management	Research in RFID and ICT

12:00 – 13:30 Lunch (Individual)

PROGRAM AT A GLANCE

SATURDAY, MAY 28, 2011

AFTERNOON

13:30– 15:00

Concurrent Sessions

ROOM	1001	1004	1006	1009	901	905
SESSION CODE	SP11	SP12	SP13	SP14	SP15	SP16
SESSION TOPIC	Topics in Health Care Management	Research in Human Resource Management	Environmental Sustainability	IT and Strategic Issues	Topics in Public Policy and Strategy	Issues in International Finance

15:00 – 15:30

Coffee Break

15:30 – 17:00

Concurrent Sessions

ROOM	1001	1004	1006
SESSION CODE	SP21	SP22	SP23
SESSION TOPIC	Innovation in Tourism	Current Research in International Finance	Topics in International Business and Finance

19:00 – 21:00

President's Dinner Program
Yousung Hotel Ball Room

PROGRAM AT A GLANCE

SUNDAY, MAY 29, 2011

MORNING

Individual activities

CONFERENCE CLOSES

*Thank you for your participation in this year's Pan-Pacific Conference!
We hope to see you at next year's conference in
Hainan Island, China
May 29 – June 1, 2012*

Pan-Pacific Conference XXVIII Program

Schedule Code

Friday Afternoon, May 27, 2011

FP1 1-6 = Friday, 13:30 – 15:00

FP2 1-6 = Friday, 15:30 – 17:00

Saturday Morning, May 28, 2011

SA1 1-6 = Saturday, 8:30 – 10:00

SA2 1-6 = Saturday, 10:30 – 12:00

Saturday Afternoon, May 28, 2011

SP1 1-6 = Saturday, 13:30 – 15:00

SP2 1-3 = Saturday, 15:30 – 17:00

FP11 CORPORATE STRATEGIES

SolBridge 1001

CHAIR: John Goebel, University of Nebraska-Lincoln, USA

Influence of Continuous Improvement and Creative Climate on Innovativeness and Performance of Firms

Mohamed Mohd Zain, University Putra Malaysia, Malaysia

Norizan M. Kassim, University of Technology Malaysia, Malaysia

A Study of the Resource Cycle Business Model of a Long-Established Company in Japan

Hisaki Goto, Nihonbashi Gakkan University, Japan

Atsuto Nishio, Takushoku University, Japan

Akiyuki Ando, Tokyo Keizai University, Japan

Matching Evolution with Theoretical Perspectives: The Case of Honda

Yujin Baskett, University of Otago, New Zealand

FP12 STRATEGIES FOR THE GREEN WORLD

SolBridge 1004

CHAIR: Khawaja Amjad Saeed, University of the Punjab, Pakistan

Corporate Strategies for the Green World

Khawaja Amjad Saeed, University of the Punjab, Pakistan

Improving Government Processes for Green Administration: A Case Study into the Extension of Building and Construction Administration Processes

Sookhee Kim, Solideo System Co., Ltd., Korea

Yoonsoo Jung, Myongji University, Korea

Consumer Acceptance on Eco Friendly Shopping Base Case Study: Carrefour Green Bag

Mustika Sufiati Purwanegara, Institute of Technology Bandung, Indonesia

Rosy Sjarifa Sjarif, Institute of Technology Bandung, Indonesia

Annisa Ayu Vinandita, Institute of Technology Bandung, Indonesia

FP13 BEHAVIOR IN ORGANIZATIONS

SolBridge 1006

CHAIR: Motofusa Murayama, Seattle University, USA

Kabuki and Global Education: Management Philosophies and Executive Performances

Motofusa Murayama, Seattle University, USA

The Role of Biographical and Demographical Variables as Moderators in the Prediction of Turnover Intentions

Janine du Plooy, University of Johannesburg, South Africa

Gerhard Roodt, University of Johannesburg, South Africa

Consequences of Healthy Workplace in Hotel Industry: A Case Study of Hotels in Chiang Rai Province
Bhandhira Lertdechdech, Naresuan University, Thailand

FP14 TOPICS IN INTERNATIONAL MARKETING

SolBridge 1009

CHAIR: Kyung-il Ghymn, Kyung Hee University, Korea

A Relative Importance of Import Decision Variables: A Comparative Study of China, Korea, and Japan
Geon-Chul Shin, Kyung Hee University, Korea
Kyung-il Ghymn, Kyung Hee University, Korea

The Relationship Marketing for Poor Customer (Study Case on Indonesian Companies)
Aditya Mohamad Salya, Padjadjaran University, Indonesia

Factors Affective the Purchasing Decision to One Tambon One Product in Pathum Thani Province, Thailand
Trustee Sanguannam, Valaya Alongkorn Rajabhat University Under the Royal Patronage, Thailand

FP15 CURRENT TOPICS IN BEHAVIOR AND LEADERSHIP

SolBridge 901

CHAIR: Fred Luthans, University of Nebraska-Lincoln, USA

A Behavioral Approach to Positive Global Leadership
Fred Luthans, University of Nebraska-Lincoln, USA

A Comprehensive Employee Engagement Model for Organizations
Marius Joubert, University of Johannesburg, South Africa
Gerhard Roodt, University of Johannesburg, South Africa

The Quality of Work Life Affecting Organizational Workers Loyalty in the Feed Mill Industry of Thailand
Korakot Thiwongkum, Naresuan University, Thailand

FP16 GREEN INFORMATION TECHNOLOGY

SolBridge 905

CHAIR: Ruidong Zhang, University of Wisconsin, Eau Claire, USA

Dimensions of a Green Data Center
Ruidong Zhang, University of Wisconsin, Eau Claire, USA
Jim Q. Chen, St. Cloud State University, USA
Jun Yin, IBM Corporation, USA

Green IT Maturity Among Korean Companies: Assessment and Improvement Strategies
Sang-Hyun Park, National Information Society Agency (NIA), Korea
Jae-Kyung Eo, National Information Society Agency (NIA), Korea

Strategies for the Implementation of RFID-Enabled Green Supply Chains
Taewon Hwang, Valdosta State University, USA
Sung Tae Kim, SolBridge International School of Business, Korea
Ed D. Walker II, Valdosta State University, USA
Sung Kyung Yang, Kyonggi University, Korea

FP21 STRATEGY FOR GREEN SUSTAINABILITY

SolBridge 1001

CHAIR: Dharma DeSilva, Wichita State University, USA

Exploring FDI Atmospherics in Corporate Strategies for the New Green World's Sustained Economic Growth
Dharma DeSilva, Wichita State University, USA

Sustainable Development and Climate Change: A Selected Analysis
Dave Flynn, Hofstra University, USA

Environmental Management Departments and Environmental and Economic Performances in the Small- and Medium-Sized Firms

Sung Tae Kim, SolBridge International School of Business, Korea
Sunran Jeon, Butler University, USA
Dong Hyun Lee, University of Nebraska-Lincoln, USA

FP22 STRATEGIC ANALYSIS OF AIR TRANSPORT

SolBridge 1004

CHAIR: Jaehee Cho, Kwangwoon University, Korea

Airport Punctuality Analysis Using Multi-Dimensional Visual Analysis Method

Jaehee Cho, Kwangwoon University, Korea
De-Kui Li, Kwangwoon University, Korea

A Study on the Systems and Information Quality of Incheon, Narita, Hong Kong International Airports

Jung Hyun Lee, Howon University, Korea
Min-joo Chung, Kwangju Women's University, Korea
Hyun-Jung Lee, Howon University, Korea

A Study on the Service Factors that Affect the Airline Customer Satisfaction – Ground Process Factors, In-Flight Human Factors, In-Flight Entertainment Factor

Jung Hyun Lee, Howon University, Korea
Inhye Park, Kyonggi University, Korea
Yoon Hee Hong, Eastarjet, Korea

FP23 EDUCATION AND GLOBALIZATION

SolBridge 1006

CHAIR: Chong W. Kim, Marshall University, USA

Increasing Instructor Awareness in the Global Classroom: Results from a Survey Technique

Michael A. Newsome, Marshall University, USA
Chong W. Kim, Marshall University, USA
R.G. Akkihal, Marshall University, USA
Roger L. Adkins, Marshall University, USA
Kyung-Soo Park, Chonbuk University, Korea

The Influence of English as a Second Language in Social On-Line Adolescent Communication: A Pakistani Scoping Study

Roberto Bergami, Victoria University, Australia
Biagio Aulina, University of Toronto, Canada
Ameena Zafar, Muhammad Ali Jinnah University, Pakistan

The Study of Satisfaction of People in Pathum Thani on the Role of Faculty of Management Science, Valaya Alongkorn Rajabhat University Under Royal Patronage

Wareerat Sampatpong, Valaya Alongkorn Rajabhat University Under Royal Patronage, Thailand

Teacher Industry Placements as a Form of Professional Development for VET Teachers

Annamare Schuller, Chisholm Institute, Australia
Roberto Bergami, Victoria University, Australia

FP24 IT TECHNOLOGIES FOR THE SMART AND GREEN WORLD**SolBridge 1009**

CHAIR: Seung Young Jung, ETRI, Korea

U-Health Business Model in Korea

Jee Hyung Lee, ETRI, Korea

Kyung Young Jee, ETRI, Korea

Prospects of the Smart Grid Industry for Green IT in Korea

Byung Sun Cho, ETRI, Korea

Young-Wook Ha, ETRI, Korea

Future Interface Technologies Based on Customer Needs

Jin-Bo Sim, ETRI, Korea

You-Jin Kim, ETRI, Korea

Hwang-Soo Chun, ETRI, Korea

FP25 IT AND CLOUD COMPUTING**SolBridge 901**

CHAIR: Badie N. Farah, Eastern Michigan University, USA

Managing Uncertainty on the Cloud

Badie N. Farah, Eastern Michigan University, USA

Enterprise 2.0 Meets Cloud Computing

James J. Lee, Seattle University, USA

Ben B. Kim, Seattle University, USA

Ted E. Lee, University of Memphis, USA

Danny Teng, Salesforce.com, USA

A Study of Job Skills for Web Developers

Choong Kwon Lee, Keimyung University, Korea

Suji Lee, Keimyung University, Korea

Yongjin Lee, Keimyung University, Korea

Hong-Hee Lee, Dankook University, Korea

FP26 RESEARCH IN COMPETITIVE STRATEGIES**SolBridge 905**

CHAIR: Andre M. Everett, University of Otago, New Zealand

The Contribution of Traditional Clusters in Contemporary Cluster Development Research – The Case of Jingdezhen Porcelain Industry

Yuting Zhuang, University of Otago, New Zealand

Andre M. Everett, University of Otago, New Zealand

Psychological Capital and Strategic Management: Moving Psychological Capital to a Strategic Level

Liang Wang, University of Nebraska-Lincoln, USA

Weixing Li, University of Nebraska-Lincoln, USA

Ming Wang, Shanghai Maritime University, China

The Effects of Intangible Resources and Firm Performance: The Empirical Study of Thai Firms

Jutamas Ingpochai, Bangkok University, Thailand

SA11 SERVICE QUALITY AND CUSTOMER VALUE**SolBridge 1001**

CHAIR: Sung Kim, Minnesota State University, USA

Service Profit Chain of the Chick-fil-A Restaurant

Sangshik Lee, Kyungsoo University, Korea

Sung Kim, Minnesota State University, USA

Kijoo Kim, Konyang University, Korea

Effects of Organizational Rewards on Emotional Labor and Organizational Commitment

Chongho Lee, Korea Aerospace University, Korea

Myungsook An, University of Nebraska-Lincoln, USA

Byungku Lee, University of Nebraska-Lincoln, USA

The Effect of the Servicescape on Customers' Behavioral Intentions in International Airport Service Settings

Sunran Jeon, Butler University, USA

Sung Tae Kim, SolBridge International School of Business, Korea

Min-su Kim, Hanseo University, Korea

So Ra Park, University of Nebraska-Lincoln, USA

SA12 TOPICS IN TOURISM MANAGEMENT**SolBridge 1004**

CHAIR: Matt Shin, Claremont Graduate University, USA

Tourist Satisfaction as a Mediator Between the Service Quality Scorecard and Tourist Retention

Magdalena Swart, University of Johannesburg, South Africa

Gerhard Roodt, University of Johannesburg, South Africa

Advertising Strategy Based on Outbound Travel Service Characteristics and Media Type

Chanuk Park, Kyung Hee University, Korea

Matt Shin, Claremont Graduate University, USA

Inwon Kang, Kyung Hee University, Korea

A Study of the Elderly Foreign Tourists' Trends in Receiving Services in Thailand

Arnpassa Chanchalor, Naresuan University, Thailand

The Cultural Impact of Entertainment Services on Brand Evaluation: The Case of Korean-Wave and Korean Products

Chanuk Park, Kyung Hee University, Korea

Matt Shin, Claremont Graduate University, USA

Inwon Kang, Kyung Hee University, Korea

SA13 TOPICS IN INTERNATIONAL ECONOMICS**SolBridge 1006**

Chair: Peter Yun, University of Virginia's College at Wise, USA

The Education of Children of Migrant Workers and the Quality of Future Labor Force: Case of Shanghai, China

Jihye Yoo, Yale University, USA

Peter Yun, University of Virginia's College at Wise, USA

Industrial Structural Changes in Japan Between 1995 and 2005

Ubaidillah Zuhdi, Tokyo University of Science, Japan

Shunsuke Mori, Tokyo University of Science, Japan

Masashi Ohkura, Osaka Prefecture University, Japan

Utomo Sarjono Putro, Institut Teknologi Bandung, Indonesia

The Effects of Globalization on Governance and Development: A Comparative Study of Selected Countries from the Middle East, Latin America, East Asia, and Europe
Nader Asgary, Bentley University, USA

SA14 TECHNOLOGY, KNOWLEDGE, AND INNOVATION
CHAIR: Sang-Gun Lee, Ajou University, Korea

SolBridge1009

Community Identification in Virtual World
Sang-Gun Lee, Ajou University, Korea
Changsoo Kim, Ajou University, Korea
Mincheol Kang, Ajou University, Korea

Platform Strategy in Open Innovation
Yonghwi Noh, University of Nebraska-Lincoln, USA
Daesung Chang, Kyonggi University, Korea
DonHee Lee, University of Nebraska-Lincoln, USA

Knowledge Management Strategy and Effectiveness of Organizational Innovation: An Empirical Study in Thailand
Praiya Prathanadi, Bangkok University, Thailand

SA15 INNOVATION IN THE MEDICAL INDUSTRY
CHAIR: Sang-Man Kim, Kyung Hee University, Korea

SolBridge 901

The Influence of Expectancy – Value and Behavior Intention on Perceived Risk of Korea Medical Tourism: Focus on Chinese and Japanese Potential Customers
Sung-Il Jang, Kyung Hee University, Korea
Hong-Kyo Jung, Kyung Hee University, Korea
Min-Young Choi, Kyung Hee University, Korea
Sue-Hee Lee, Kyung Hee University, Korea
Sang-Man Kim, Kyung Hee University, Korea

Impact of Operating Innovation on Organizational Performance in Health Care Industry
DonHee Lee, University of Nebraska-Lincoln, USA
Soong Hwan Chung, Hansung University, Korea

Medical Tour Service Segmentation and Positioning Strategy: Based on Service Characteristics and Consumers' Involvement
Jiwon Lee, Kyung Hee University, Korea
Matt Shin, Claremont Graduate University, USA
Inwon Kang, Kyung Hee University, Korea

Comparative Research on the Synchronization Level Between Health Security and Economic Development – Shenzhen and Hong Kong as Sample
Diana Xiao-dan Qiu, Hong Kong Polytechnic University, China
Mike Guang-yi Xu, Shenzhen University, China

SA16 INFORMATION SYSTEMS AND APPLICATIONS
CHAIR: Gyu C. Kim, Chungnam National University, Korea

SolBridge 905

Application of Adaptive Structuration Theory for Successful Implementation on the SOA Enabled ERP System
Gyu C. Kim, Chungnam National University, Korea
Stacy S. Kim, University of Illinois, USA

Are the Factors Affecting the Quality of IS Projects Identical in Large Corporations and Manufacturing SMEs?

Soon Goo Hong, Dong-A University, Korea
Jong Weon Kim, Dong-Eui University, Korea
Na Rang Kim, Dong-A University, Korea
Hyung Rim Choi, Dong-A University, Korea
Seung Eun Lee, Dong-A University, Korea

A Study on a BSC Model for Managing IT Outsourcing Performance

Hyun-Woong Jo, Chungbuk University, Korea
Seung-Jun Yeon, Electronics and Telecommunications Research Institute (ETRI), Korea
Sang-Wook Kim, Chungbuk University, Korea

SA21 CURRENT ISSUES IN INFORMATION SYSTEMS

SolBridge 1001

CHAIR: Jim Q. Chen, St. Cloud State University, USA

Information Security and Compliance Management

Jim Q. Chen, St. Cloud State University, USA
Ruidong Zhang, University of Wisconsin, Eau Claire, USA
Harv Busta, St. Cloud State University, USA

A Customer Migration in Korea Smart Phone Market

Sang-Gun Lee, Ajou University, Korea
Chang-Gyu Yang, Ajou University, Korea
Ming Yu, Tsinghua University, China

Limen, The Threshold of Reality

Yunchu Huang, Honam University, Korea
Mincheol Kang, Ajou University, Korea
Wonki Byun, Cyberlogitec, Korea
Sang-Gun Lee, Ajou University, Korea

The Dunbar Number is Always the Ideal in Collective Intelligence Based on Online Network

Tae-Won Kim, Chungbuk National University, Korea
Sang-Wook Kim, Chungbuk National University, Korea

SA22 CONTEMPORARY ISSUES IN LEADERSHIP

SolBridge 1004

CHAIR: Daesung Chang, Kyonggi University, Korea

A Comparative Study on the Leadership and Strategies of Genghis Khan and Geon Wang Who is the Founder of Korean Kingdom

Daesung Chang, Kyonggi University, Korea
Ji-Young Lee, Philippines Christian University, The Philippines
Hyun Jung Lee, Kyonggi University, Korea
Eungyu Kim, Kyonggi University, Korea

Shared Leadership in Japanese R&D Teams: The Relationship with Transformational Leadership of Formal Leader and Team Performance

Jun Ishikawa, Rikkyo University, Japan

Chinese Business Leadership Approaches: A Sociological and Philosophical Perspective

Haina Zhang, University of Otago, New Zealand
Andre M. Everett, University of Otago, New Zealand
Malcom H. Cone, University of Otago, New Zealand
Graham Elkin, University of Otago, New Zealand

SA23 RESEARCH IN ENTREPRENEURSHIP**SolBridge 1006**

CHAIR: Seongbae Lim, St. Mary's University, USA

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Influence of Continuous Improvement and Creative Climate on Innovativeness and Performance of Firms

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ABSTRACT

This paper investigates the positive influence of continuous improvement, and organization's creative climate on the innovativeness of firms that in turn positively influence their performance. Data were obtained from a survey involving 112 firms from the services and manufacturing sectors in a newly globalized and fast developing economy of Qatar. The results indicated that continuous improvements (in the form of marketing innovation) had a significant positive influence on the firms' innovativeness. Out of the six of the ten Ekvall's creative climate factors examined only four of them (trust/openness, idea time, freedom, and playfulness/humor) had some positive influence on innovativeness of the firms. Finally, the results also show that organizational innovativeness in turn significantly influenced the performance of the firms in the expected direction. Managerial implications of the findings are also provided.

INTRODUCTION

Creativity and innovation have a role to play in the change process for survival of firms [1]. They are also considered to be key factors for achieving sustainable organizational competitive advantage in the new economy [2]. Creativity may be the most important tool in a manager's arsenal [3]. Without it a firm becomes predictable and causing it to be at competitive disadvantage with its rivals. Thus creativity may be the key to market success and improved operating efficiencies [4]. In addition to being creative, firms need to also focus on continuous improvement. In today's turbulent business environments, competitive advantage lies in the firm's ability to continuously innovate its way temporarily out of relentless market pressures facing them [5].

In their efforts to carry out continuous improvement as well as to create the right kind of internal environment that is receptive to innovations firms need to have a climate which can be considered as creative rather than otherwise. Similarly, they need to have the right kind of structure and organizational characteristics and culture that can facilitate such kind of climate. Finally, the ability of firms to carry out continuous improvement and to implement innovations as well as to create the kind of climate, structure, and culture that stimulate creativity and innovativeness could help make them more competitive vis-à-vis their rivals. Thus, the main objectives of this paper are to investigate (1) the positive influence of incremental innovations or continuous improvement, and organization's creative

climate on the innovativeness of firms which in turn (2) positively influence the performance of the firms.

CONCEPTUAL FRAMEWORK

The ability of firms to innovate is increasingly viewed as the single most important factor in developing and sustaining their competitive advantage [6]. It is no longer sufficient for firms to do things better but to do "new and better things" [7] on a continuous rather than once in a life time or occasional exercise. Organizational survival now depends on the firm's ability to build itself as innovative organizations as well as its ability to manage the innovation process [8, 9] continuously without ending. Hence, our first hypothesis for this research is:

H1: Continuous improvements carried out by a firm positively influence the firm's innovativeness.

Researchers and practitioners have become increasingly interested in studying the environmental factors (e.g. social, emotional, intellectual development and work conditions) conducive to creativity [2],[10],[11],[12],[13]. Results of previous research suggest that employees will be creative when they have a shared commitment to their projects [14, 15], and when they are given adequate resources to conduct their work [16]. Furthermore, previous research have shown that employees would be creative when their work is intellectually challenging [17], and when they are given a high level of autonomy and control over their own work [18].

While there is no single optimal organizational design that fits all, there should be some organization designs that favor innovation more than others do [21]. For an organization to be effective, they need to have a structure as well as climate that allows beneficial coexistence between operation and innovation, as well as a structure and climate which allows the flow of knowledge and people from one function to another [22],[23]. Researchers [24] have found that more innovative firms have more creative climates when compared to less innovative ones. Furthermore, a number of researchers (e.g. [10],[25],[26],[27],[28]) have developed an instrument which can be used to assess the creative climate of an organization. Thus, our second hypothesis for this research is:

H2: Creative climate of a firm positively influences the firm's innovativeness.

In their research involving small service firms in Australia, researchers found significant differences between groups of firms, indicating that the more innovative firms are of greater potential value to their

industry [29]. In another study on SMEs in Taiwan, it was found that innovations, particularly administration innovations, turned out to be the most crucial factor in explaining sales [30]. Nevertheless, previous studies of the relationship between innovation and performance have produced mixed results, some positive, some negative, and some showed no relationship at all [31],[32],[33]. Thus, this study is another attempt at re-examining this relationship. Another researcher [34] has found that incremental technological innovations help improve company innovativeness with the ultimate aim of increasing company's value. In another study [35], it was reported that continuous work process innovation was the most important action for improving the short-term profitability. Also, it was found that an incremental strategy is the major driving force behind any improvement efforts [36]. In a study conducted on Australian and New Zealand companies [36] it was found that a "bottom-up" continuous improvement strategy is the preferred strategy to improve customer satisfaction and productivity and a "top-down" strategy is considered appropriate for increasing relative technological innovativeness. Hence, our third hypothesis for this research is:

H3: The innovativeness of a firm positively influences the firm's performance.

METHODOLOGY

The data for this study were gathered by means of a survey questionnaire administered to Qatari firms. The questionnaire contains various statements aimed at assessing or determining: (1) the continuous improvement (incremental innovation) carried out by the firms, (2) the creative climate of the firms which assess the organizational climate in terms of Ekvall's 10 factors, i.e., challenge/motivation, freedom, idea support, liveliness/dynamism, playfulness/humor, debates, trust/openness, conflicts, risk taking, and idea time [26], (3) innovativeness of the firms, (4) increase in the performance of the firms; and the demographics of the firms.

We employed a 6-point Likert-type scale ranging from 1 (Strongly Disagree) to 6 (Strongly Agree) because we believe that a scale with a mid-point tends to make respondents guess what might be a socially acceptable answer to the question [37],[38]. The questionnaire was translated back-to-back to ensure functional equivalence of its items in two languages (English→Arabic→English).

The questionnaires were distributed via mail to 500 Qatari firms randomly drawn from a database held by our colleague in Qatar University. A total of 112 usable questionnaires were analyzed for this research.

To test the dimensionality of the instrument, all the items measuring the continuous improvement (18 items), and innovativeness (10 items) were factor analyzed using varimax rotation where the criterion of meaningful factor loading was set to 0.4 [39]. The use of these criteria resulted in a two-dimensional

solution each for continuous improvement and innovativeness that explains 63.81 and 74.88 per cent of the variances, respectively. The factors for Continuous Improvement are labeled as marketing innovation (MKTINOV) and administrative innovation (ADMINOV), while the factors for Innovativeness are labeled as strategic (STR) and environmental (ENVIRON) factors.

We used AMOS 4 to perform a confirmatory factor analysis (CFA) to investigate the constructs dimensionality. Model fits were evaluated using the comparative fit index (CFI) and the root mean square error of approximation (RMSEA) because of their robustness, stability, and lack of sensitivity to sample size [40]. The initial CFA models for the creative climate, internal environment, and innovativeness assessments were not fully acceptable based on our use of the analytical approach suggested by Anderson and Gerbing [41] and hence few items were eliminated from those factors in order to achieve an acceptable fit.

The significant factor loadings obtained demonstrate the convergent validity. Also, if the average variances extracted (AVE) were below the minimum level of 0.50 the factor would be eliminated in order to demonstrate adequate discriminant validity of the constructs [42]. Based on the AVE scores obtained, creative climate factors of challenge/motivation, idea support, liveliness/dynamism and conflicts were removed from the original model.

RESULTS AND IMPLICATIONS

Almost 73% of the respondents were holding senior management position in their company. The majority (54%) of the firms were involved in services followed by another 43% that were involved in manufacturing. The majority (68%) of the firms employed more than 50 employees. The majority (74%) of the firms also have been established for at least 10 years. Most (80%) of the firms market their products either in the Gulf market or in the broader Arab countries. The majority (54%) of the firms were private corporations.

Table 1 shows the results of the creative climate assessment of the firms [26]. As can be seen from this table, on most accounts (the exceptions being freedom, idea support, and conflicts) the companies involved in this study could be classified as quite innovative.

Table 1. Ekvall's Creative Climate Assessment [26]

Variables	Means	"S"	"I"
Challenge/Motivation (CCM)	2.1	1.8	2.3
Freedom (CFR)	1.7	1.5	2.1
Idea support (CIS)	1.7	1.1	2.1
Liveliness/Dynamism (CLD)	2.1	1.3	2.2
Playfulness/Humor (CPH)	2.0	1.3	2.3
Debates (CDB)	2.1	1.1	1.5
Trust/Openness (CTO)	1.9	1.2	1.7
Conflicts (CCF)	1.9*	1.5*	0.7*
Risk taking (CRT)	1.9	0.6	1.8
Idea time (CTM)	2.0	0.9	1.5

Note: Means based on Ekvall et al's results

S = Standard Companies; I = Innovative Companies

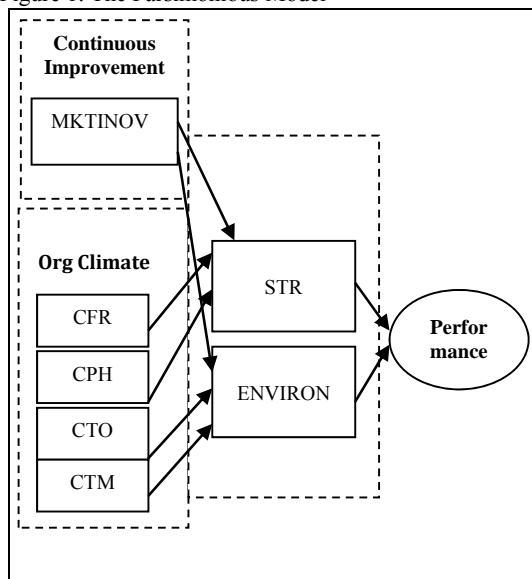
* Reverse score

The results of the hypothesis testing on whether continuous improvements positively influence innovativeness indicated that continuous improvements (in the form of marketing innovation) had a significant positive influence on the firms' innovativeness (both in terms of their strategic positions and having an environmentally conducive environment), thus confirming H1. However, continuous improvements (in the form of administrative innovation) did not significantly influence the innovativeness of the firms. This indicates that marketing innovations are more important to the firms than administrative innovations.

The results of the hypothesis testing on whether the six factors of creative climate have a significant positive influence on the innovativeness of the firms (H2) also resulted in a partial acceptance of the hypothesis. Of the six creative climate factors, two of them (trust/openness and idea time) had positive influence on innovativeness (in terms of contributing to conducive environment) of the firms. In terms of contributing to the firms' innovativeness (strategic positioning), another two factors (freedom and playfulness/humor) of the factors had a significant positive influence. Finally, the last hypothesis (H3) has also been accepted indicating that organizational innovativeness had significantly influenced the performance of the firms in the expected direction.

Based on the results of the analysis discussed above the parsimonious model of this study is shown in Figure 1.

Figure 1: The Parsimonious Model



It is interesting to note that of the two categories of continuous improvement examined in this research, only marketing improvement initiatives such as finding new ways of marketing the firm's products have a positive influence on the firm's innovativeness. Thus, this study provides an additional support, albeit in a developing country environment, to the findings by earlier researchers [43],[44] that firms need to carry out or implement continuous incremental innovations in order to sustain their competitive advantage.

Further, our attempt at analyzing Ekvall's [26] ten creative climate factors in terms of their relationship or influence on the firms' innovativeness has also produced an interesting result. Despite our finding that the firms were closer to be considered as "innovative" rather than "standard" firms (see Table 1), of the ten Ekvall's creative climate factors examined only four – freedom, playfulness/humor, trust/openness, and idea time -- were found to have significant influence on the firms' innovativeness. Thus, firms need to focus more on creating the kind of organizational climate that is conducive, particularly to these four factors in order to create a climate that can help them to be more innovative. Thus, this study has extended the earlier way of assessing the creative climate of firms using the Creative Climate Questionnaire [26] by examining whether the factors that influence the creative climate of firms also influence the firms' innovativeness.

Finally, the result of this study confirms the positive influence of the firms' innovativeness to their performance improvement. Thus, the finding has provided an additional support to the earlier studies by earlier researchers [45, 46] on the positive influence of firms' innovativeness on their performance.

A number of implications can be drawn from this research. First, managers of Qatari firms need to focus more on introducing marketing innovations in their efforts to carry out continuous improvement in their organization as doing this initiative tends to positively influence their firms' competitive position. Second, while many activities and policies are necessary to create a creative climate in their firms, managers need to create a climate in their organization by giving their employees a lot of freedom for them to come up with new ideas to improve their products, services, processes, etc. They should also create a work atmosphere of playfulness/humor where employees are encouraged to enjoy their work or to regard their work as something that is fun to do. In addition, they should also instill a climate of trust and openness where everyone should be encouraged to trust each other and to be open with one another instead of creating an environment of secrecy or where backstabbing is rampant. Furthermore, employees should be given sufficient time to come up and to tinker with new ideas that can improve their products, services, processes, etc.

REFERENCES

(Available Upon Request)

A Study on the Resource Cycle Business Model of a Long-Established Company in Japan

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ABSTRACT

In Japan, Kongo Gumi Co., Ltd., one of the long-established companies, still has run its business since 578. It is known that there are many long-established companies in Japan. Many of long-established companies were established in the middle of Edo era, which is almost 300 years ago and survived the deep slump term after the collapse of “bubble” economic in 1990-91. These companies have run simple thrifty management through the idea of humble and modest way based on the Confucianism, which has developed in Edo era. Furthermore, the management of these companies established the energy-saving green business model in terms of usage of resources.

Basically, the Japanese society of Edo period was relied upon the reusable solar energy. Due to the energy constraints, many occupations based on “three R’s (Reduce, Reuse, and Recycle)” became popular among many industries. At the same time, recycling society was formed based on the idea of three R’s.

KOKUBU, Inc. (it is hereafter called Kokubu in this paper) is one of the long-established companies in Japan. Kokubu has been operated their business and established its own business model in terms of reuse of barrel since 1712. In addition to its revolutionary business model, Kokubu applied its revolutionary business model into related business field such as the idea of reuse of bottle, invention of container and many other fields. It is needless to say that this idea became a foundation of current green philosophy of Kokubu and contributed to nationwide bottle based reuse logistics business.

Today, Kokubu is involved in the green logistics projects utilizing Information Technology (IT) and performs well on the projects. This project represents the distinguished identity of Kokubu, which has been built over 300 years based on its green policy.

As mentioned above, because of the delicate consideration and judgment capability lasted since Edo era, Japanese long-established companies have maintained their long history.

1. Introduction

Nowadays, we use the term “three R’s (Reduce, Reuse, and Recycle)” commonly used as a key phrase of green energy projects in Japan. According to the article of Ministry of the Environment of Japan (2005), the term “three R’s” was originally used in the mid-1980s in the U.S. In the article of Oregon State (1983), it mentioned that the desirable disposal method of solid garbage follows a hierarchy in the following order; Reduce, Reuse, and Recycle. In New York Times (1990), it says, “New York State has adopted the new three R’s by the Solid Waste Management Act of 1983 and in the regulations of the Department of Environmental Conservation”. At least the idea of three R’s was originated in the U.S. In Japan, though there are some arguments, this idea was cleared in “three R’s initiative cabinet meeting in 2005”, which was organized by former Prime Minister, Mr. Koizumi. However, as it is mentioned above, the original concept of three R’s took a root in Edo era, which is over 300 years ago. Moreover, it is said that it is rare that there are many long-established companies in Japan compared with other countries in the world.

In this paper, we would like to mention the fundamental concept of Japanese long-established companies and discuss recycle based society originated in Edo period. Then, I would like to examine the case of study of Kokubu and its recycle based

resource model. Through the research of Kokubu’s way of green logistics, I would demonstrate how recycle based society has been a meme in Japan over last 300 years.

2. Japanese long-established companies

Yokozawa (2000) estimated that there are more than 100,000 long-established companies, which have been run their businesses more than 100 years in Japan. According to the national data bank research database (2010), called “COSMOS2” holding the data of more than 130,000 companies, it says that there are 22,219 long-established companies, which has been run their businesses more than 100 years, as of August 2010. However, this database does not include small/medium-size companies. In terms of the fact that many of the long-established companies are small or medium size, it is relevant to use the Yokozawa’s estimation (2000).

Cho (2008) estimates that there are 5,586 companies, which have been run their businesses more than 200 years, among 41 countries all over the world. 3,146 of them are in Japan, 837 in Germany, 222 in Netherlands, and 196 in France. As we can see, more than half of the long-established companies are concentrated in Japan. It is said that Japan is unique country in terms of number of long-established companies.

According to the national data bank research (2010), there are 2,058 long-established companies in Tokyo, which consists of 9.3% of total number of long-established companies in Japan and this percentage is more than that of any other prefectures in Japan. Tokyo is a region where General Yeyasu Tokugawa moved as a capital of Japan in 1590 and it has been developed rapidly since then. Especially, the area of Nihonbashi (northern part of current Chuo-ku) has not only been a hub area for long-established companies to distribute products to Edo castle, but also it has been a center of business in Japan.

As we have discussed in previous paragraphs, there are many studies to examine the reasons why so many long-established companies exist in Japan. As Goto (2009) mentions in his article, in Edo era, society adopted monetary based economy and idea of Confucianism. To do so, Tokugawa government kept the order of society. The humble modest business models based on the Confucianism was one of the reasons why the management companies has been able to run their businesses for long run. In the case of resource usage, as Hanley(1990) argues, the idea of “Minimize the waste, or maximize the utility of resource,” has been penetrated in business field in Japan since Edo era. It is said that many long-established companies have been acted proactively toward green energy usage.

3. Cycle Based Society in Edo era, Japan

Japanese population was approximately 30 million between 1721 and 1846. Onigashira (2005) states that the number of population was mainly affected by the constraints of energy supply during that period. In Edo, currently called Tokyo, the number of population was approximately 1million and has been stable as well.

In Edo era, agriculture was main industry and its energy was basically only from solar power. The plant is cultivated by this solar energy, that plant was used as food, various tools were made, and it came as fuel etc. When people produced metal or magnet, they used plant based resources such as wood or charcoal. Of course, they did not exploit all resources at that time.

Ministry of the environment, Japan (2001) estimated that the amount of energy used per year in Edo era was only one-hundredth of energy that we can extract from the plants that grow up in that same year in Japan. Thus, people run their livings through the agricultural products using reusable solar energy in Edo era. In other words, yearly growth of plants was large enough to produce the energy that they needed for livings every year. According to Onigashira (2002), the economic growth rate was only 0.2% per year in Edo era. It implies the problem of energy constraints exists that we mentioned above.

Thus, people found their way to live in cycle based society in terms of resource in Edo era. Kitagawa (1837) describes the occupations in Edo era. For instance, Tinkers who mend the household utensils especially mend of pan or iron pot, professionals who fix broken china or crockery using rice flour, professionals who fix the barrel or tub using the new hoop, and so on. In addition, Kitagawa mentions other occupations for specialize in collection such as second hand clothes dealer, second hand barrel dealer, second hand candle dealer who recycle the wax of candle, second hand ash dealer who sell the ash as a ceramic glaze and so on.

Hanley (1990) describes about difference of the worth of the waste between Japan and Western. He says that the waste are treated as "useful economic goods and resources" in Japan.

To summarize, in Edo era, people used the goods in a long run through fixing them and reduced the waste; "Reduce". In addition, if products became old, people re-used them as a second hand; "Reuse". Furthermore, people recognized wastes as useful economic resources and recycled in different field; "Recycle". Therefore, idea of three R's existed in Edo era and cycle based society has already established.

4. Kokubu

Kokubu, was founded in 1712, is not only one of the long-established companies in Japan, but also a leading company in general food logistics industry in Japan.

Shimada (1988) says Kokubu the first was told Kokubu Taizen who is a brother of Iganokami, feudatory of Kitabatake family. Kokubu Taizen is the first Kokubu Kanbei. Fourth-generation of Kokubu Kanbei bound for Edo as an apprentice to a Toyama family and later he opened the mercer in Edo. Regarding the research of shop delivery, Goto (1990) found out that in 1696, Daikokuya Kabei took over the mercer from Naraya Yemon. Author made an assumption that this store was the mercer that Fourth-generation of Kokubu Kanbei opened in Edo.

In 1712, fourth-generation of Kokubu Kanbei opened the soy source store as a Daikokuya Kanbei style in Tuchiura and started the soy source brewing. Kokubu says that this is the beginning year of their business.

In addition, according to Kokubu short history (1992), it says that fifth-generation of Kanbei moved its store to the west bank of Nihonbashi from the central area of Nihonbashi in 1756. This implied that they closed their mercer business and moved to west bank of Nihonbashi.

Later, as Shimada (1988) mentions, due to the fact that Kokubu family was forced to pay Goyoukin, is tax to merchant to save Shogunate or local Clan from debt, to both Tsuchiura and Toba Clan, whose accounts was severe. They closed their soy source brewing business in 1878 and opened general food logistics business in stead. Kokubu short history (1992) also mentions that eighth-generation of Kokubu Kanbei collected the excellent goods from all over Japan and built the solid foundation of Kokubu's general food logistics business.

5. Re-use Business Model of Kokubu

It is noted that Kokubu established the re-use business model in soy source business in Edo era.

Since there were many fires at that time in Edo and it was difficult to find the good Japanese cedar used as a part of material of barrel for soy source, around Edo area, Kokubu re-used the barrel for soy source. Furthermore, it is often said that best soy

source can be produced through using the second hand barrel instead of new one. Taking these reasons into consideration, Kokubu washed the barrels and used them over and over. In addition, soy source which shipped from Kansai area through Two or Four To, which is a name of unit, about 18 liters or approximately 5 gallons, unit tank. In order to sell soy source to consumers, they had to remove into smaller barrels. Since the materials for barrels were rare, they broke the big tanks into small pieces and used them as a substitute. In some sense, as we described in section above, Kokubu purchased the second hand barrels from second hand barrels dealers.

As mentioned above, it is said that the idea of re-use of soy source barrels is the fundamentals of current Kokubu's Environment oriented philosophy. Therefore, Yamada (2007) mentions that in a long history of Kokubu, the development of re-use barrels or collecting barrels has been contributed to its business and got benefits more than just selling the soy source.

Since Meiji era, as a general food distributor, Kokubu expand its business into new area such as selling a Yebis Beer or setting the standard of bottling and other areas. Yamada (2007) also mentions that since Meiji restoration, Kokubu became a pioneer of selling a packed bottle soy source to Russia and started the business of cleaning the bottle of soy source or Japanese sake after the World War II. Kokubu also ran the business of producing the plastic bottles from the wood one and distribute to the general consumers. In the end, Yamada (2007) refers its long business history, combining the collecting the barrels/bottles business and distributing business together and being successful in that field.

To make it summarize, it is thought that these business models of Kokubu; re-use of barrels/bottles, inventing the business container, re-use of bottle in national level and many other unique models, is the fundamental of current environmental oriented philosophy of Kokubu and at the same time it is appropriate to be called as great meme of Kokubu.

6. Green Logistics Model of Kokubu

The green logistics in Japan is defined a logistics that lifts a burden from environment such as reducing the emission of carbon dioxide. This idea is originated from Kyoto Protocol adopted in December, 1997.

Up to these days, as one of the solutions which support the green logistics, some policies has been examined such as using a low mission car as an alternative, batch logistics, modern shift, merging of logistics hub, and green driving.

In general, it is believed that establishment the logistics system of reducing the emission of carbon dioxide might be welcomed in market mechanism since it increases the efficiency of logistics and reduces the logistics cost at the same time. However, the requests from the market are not exactly relevant to the approaches described above. Market demands company to adopt the "Just In Time System" (JIT) in terms of supply chain management. For instance, in the case of Kokubu, it is required to distribute the food products at certain time requested by the major supermarket. It is pointed out that applying JIT system does not reduce the burden on environment. From this point of view, in "Green Logistics Partners Conference" it is argued the following issues; we, stake holders of supply chain system as a whole, should support green logistics with collaboration and should reduce the case of extreme small lot logistics or reduce the logistics with too tight schedule (extreme case of JIT). Green Logistics Partners Conference was established in April 26, 2006 organized by Ministry of Land, Infrastructure, Transport and Tourism, Ministry of Economy, Trade and Industry, Japan Institute of Logistics System, Japan Federation of Freight Industries, and Nippon Keidanren. In this conference, in order to reduce the emission of carbon dioxide, members are actively involved in the projects encouraging both the freighter companies and logistics dealers to collaborate to tackle of this problem and find the solution together.

In Japan, the Green Energy Act, referring the efficient usage of energy, was signed in 1979. The aim of this Act was to regulate the energy usage and encourage the efficient way of using the

energy. This Act was applied in variety of aspects from warehouse, building, machinery, freight industry, to household. Under the revision of 1998, the cutting edge standards were required such as standards that leading company sets in automobile or electrical appliance industry. Under the another revision of 2005, to enforce the regulations both households and business, the following trials were made; 1) Uniform control of energy in warehouse and business office, 2) Implementation in Transportation industry 3) Energy control toward normal building. In addition, under the revision of 2008, it required the management of energy control for each business unit and expanded its range of its regulations to convenience store, resident buildings, and houses.

In transportation industry, under the revision of 2005, it required for carriers (those who have a carrying capacity of 30million ton-kilometer level) whose carrying capacity exceeds certain level of standards to file the documents about their energy usage plans and their actual usages.

Now, I would like to mention the case study of Kokubu researched by Yamada. Yamada (2007a, 2007b) says that Kokubu set up the framework of green projects aiming at the reduction of burden on the environment collaborating the ASP car control software in March 2005, which was prior to the execution of revised Green Energy Act in 2006. Kokubu also became a leading company who exercises the green logistics partnership model. Kokubu kicked off this project at the end of December, 2005 and actually verified its effectiveness toward all cars of 65 vehicles at four bases in Kanagawa by the end of March, 2006. Kokubu did this examination utilizing the cell phone and took a data of all 65 vehicles. The results showed that it increased their average-mileage by 10.37%.

In addition, Kokubu developed the system that makes it easy to report the daily records without any extra tiresome work. Through collaborating the data with many transportation companies and penetrating this system in nationwide, it enabled transportation companies to file their documents to government based on their needs such as using fuel-based method, mileage-based method, revised-ton-kilometer-based method and so on. Since 2007, Kokubu has developed the green drive project and succeeded to produce 4 t car whose mileage was 7kilometer per liter one month after they kicked off its project. Though more than half of the competitors adopt the revised-ton-kilometer-based method since it is easy to use, Kokubu report has reported their performance based on the fuel-based or mileage-based method, which showed the actual data more precisely than other methods.

Kokubu was acclaimed for its green domestic projects and its performance and obtained several awards; MCPC Special Award 2006, Logistic Award (obtained from Japan Institute of Logistics System), Japanese Environmental Management Award 2008, and Minister Award (obtained from Ministry of Economy, Trade and Industry at Green Logistics Partners Conference).

It is safe to say that these outstanding performances in green logistics area would be one of the memes of Kokubu based on its green based philosophy, which has been developed over 300 years of history as a long-established company.

7. Summary

In this paper, we have discussed the Japanese long-established company and the recycle society as a part of Japanese traditional culture. Then, we have mentioned about Kokubu itself as a long-

established company and its reuse business model and its philosophy; one of the memes of Kokubu.

Through the westernization after Meiji restoration, Japan has been developed as civilized and industrialized country and has experienced the economic growth. Along with the economic growth, Japanese population increased from 30million to 1.3 billion and population of Tokyo increased from 1 million to 10million. However, some cultures has not been changed since then. As we have been discussed in this paper, the business model of reuse of beer bottle started by Kokubu still exists and other cultural values such as delicacy, thoughtfulness, and clear-sighted-ideas lasted since Edo era. It enables Japanese long-established companies become more sustainable in today's business arena.

Wangari Maathai who obtained the Nobel Peace Prize advocates the idea of MOTTAINAI(wasteful) and see Japan as a symbol of MOTTAINAI. It implies how valuable that Japan has a priceless traditional culture of delicacy, thoughtfulness, and clear-sighted-ideas. The disastrous earthquake and Tsunami occurred on March 11, 2011 brought a huge damage to Japan both mentally and physically. However, I strongly believe that because of rich cultural values such as delicacy, thoughtfulness, and clear-sighted ideas. Japan is able to recover quickly from the damage that she has experienced from this disaster.

REFERENCES

- Chung Hu Sik (2008) "Causes for the Longevity of Japanese Companies and Their Implications" Bureau of the Bank of Korea
- Committee of study of Kokubu short history (1992), "Kokubu Short History-280 years anniversary", KOKUBU&CO.,LTD
- Goto, Hisaki (2009), "Kokubu Co., Ltd. And Green logistics". Study at Nihonbashi Institute Vol.2 No.1
- Goto, Takayuki (1990), "World of Ise merchant", Mie ryosho Publishing
- Kitagawa, Morisada (1837) "Morisada Mankou" (Edited by Asakura Naohiko and others in 1992: Morisada Mankou, Tokyo-do Publing Ministry of the environment (2001) "Cycle based society whitepaper, Heisei 13 version". 'gyousei.
- Ministry of the environment (2005) "Cycle based society whitepaper, Heisei 17 version". 'gyousei.
- National Data Bank (2010), "Study of long-established companies, which has been run their businesses more than 100 years" <http://www.tdb.co.jp/report/watching/press/pdf/p100902.pdf>
- New York Times(1990) "LONG ISLAND OPTION; Today's 3R's: Reduce, Reuse and Recycle" <http://query.nytimes.com/gst/fullpage.html?res=9C0CEFD71238F930A35755C0A966958260&sec=&spon=&pagewanted=all>
- Onigashira, Hiroshi (2002) "Developed society, Edo as cycled based society". PHP
- Onigashira, Hiroshi (2002) "Developed society, Edo as cycled based society". Revised version. Vol.26 No.4
- Oregon(1983) "Opportunity to Recycle Act" <http://www.deq.state.or.us/lq/pubs/factsheets/sw/OregonRecyclingLaws.pdf>
- Shimada, Kenji (1988), "Ise merchant", Ise merchant study Institute
- Yamada, Hido (2007a), "Green Logistics Project in Logistics Industry", Logistics net-working, Ni-ko technology research No.220 , pp.14-18
- Yamada, Hido (2007b), "Reduce the logistics transportation vehicles through collaborating logistics and batched system", Green Energy, Green Energy Center Vol.59, No.11 (2007/10) pp. 50~53
- Yokozawa, Toshimasa (2000), "Study of long-established companies" Seisansei Publishing

Matching Evolution with Theoretical Perspectives: The Case of Honda

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ABSTRACT

By applying common theories from strategic management literature to the auto manufacturer Honda, we can assess to what extent Honda's success can be explained, and highlight the limitations of current theoretical perspectives on strategy. The company has been used to support a variety of often opposing perspectives in some of strategic management's most prominent theoretical debates, resulting in many occasions where strategy analysts failed to come to a universal agreement. Many have tried to explain its success by attribution to strategies such as the Uppsala model, Dynamic Capabilities and Organisational Learning, but a universal agreement has yet to be reached.

COMPANY BACKGROUND

Founded in 1948 by Soichiro Honda, Honda Motor Company is widely recognised as one of the world's leading auto manufacturers. It is regarded as the most internationalised auto manufacturer in the world, with 78% of sales by volume and 46% of manufacturing output outside its home market (Mair, 1997). The company produces a range of products from different company divisions, including marine, power equipment and aircraft. Unusually for Japanese producers, Honda remains a relatively small player in its domestic home market, despite being significantly more internationalised than any of its rivals. Honda has evolved several times, from a small domestic producer to a large multinational manufacturer, and from a motorcycle manufacturer into a producer of a range of products. Honda's rapid internationalisation occurred in a matter of decades, helping drive the company from obscurity to stand alongside giants Toyota and Nissan.

PHASE ONE: CONCEPTION

Any analysis of Honda's initial success must account for the unique character of its founder, Soichiro Honda, and his partner, Fujisawa. Mr Honda embodied a rare combination of inventive ability with self-confidence (Pascale, 1996). Mintzberg and Westley (1989) proposed visionary leadership is a dynamic, interactive phenomenon, as opposed to a unidirectional process. Several distinctive types of leadership styles were suggested; most applicable to Mr Honda was "The Creator". The Creator is characterised by the a focus on products, originality of ideas and whose vision becomes a driving preoccupation. On the other hand, Fujisawa shared a

different leadership style, one which matched that of "The Proselytizer". The Proselytizer is focused on the market and competitor infrastructure, using foresight to pursue tangible product adaptation and mass market appeal (Mintzberg & Westley, 1989). Combined, Honda Motors had product innovation with the foresight to seek out mass market adoption.

The Resource Based View can also be linked to Honda. A coherent bundle of resources tied semi-permanently to the firm could permit the formation of capabilities that can be exploited to create sustained competitive advantage (Barney, 1991). Both Mr Honda and Fujisawa provided value in the form of knowledge, the knowledge they possessed was rare, they were committed to the company and thus were immobile and it is highly unlikely their attributes were perfectly imitable. In Porter's (1991) framework, the firm is viewed as a bundle of strategy activities aiming at adapting to industry environments by seeking an attractive position in the market. This perspective can also be adapted to Honda alongside the RBV perspective. Fujisawa did indeed demonstrate a strong focus on spotting market opportunities and the activities of industry competitors, when suggesting to Mr Honda an untapped segment of the motorcycle market of young couples and small business owners. The two perspectives (RBV and Porter's framework) are not necessarily opposing approaches that result in incoherencies. As Spanos and Lioukas (2001) noted, the two can co-exist and shape actual firm behaviour, even complement each other.

In a report published in 1975 by the Boston Consulting Group on strategy alternatives for the British Motorcycle Industry, the BCG suggested the success of Honda originated with the growth of their domestic market during the 1950s. By developing huge production volumes in small motorcycles, volume-related cost reductions were achieved with the result being a leading position in terms of technology and low-cost production methods (Pascale, 1996). Honda was portrayed as a firm dedicated to being the low-cost provider, aligning with Porter's framework.

PHASE TWO: INTERNATIONALISATION

Honda's rapid morphing from a primarily domestic manufacturer into a multinational producer during the 1960's is best linked to the Uppsala process model. Within this model, firms internationalise in a series of stages, learning by focusing on market knowledge and proceed in stages to overcome risk and uncertainty, gradually investing more commitment into

international markets (Campbell-Hunt & Chetty, 2001). Honda's initial internationalisation process partially supports this theory; first producing for the Japanese domestic market before advancing overseas. Yet, Honda also shares much in common with attributes of "born global" firms. It had entrepreneurial foundations and perceived international markets as providing opportunities rather than obstacles. Honda also underwent near-simultaneous engagement with multiple international markets in North America and Europe. The Uppsala model emphasises minimising risk and overcoming uncertainty, while suggesting as firms gain market knowledge, they commit more resources to the market (Campbell-Hunt & Chetty, 2001). Honda's commitment to foreign expansion can hardly be described as minimising risk.

According to Pascale (1984), one of the key elements was the notion of organisational learning. Pascale's conclusion, called the "Honda Effect," was that there is a tendency for academics and practitioners to overlook the process through which organisations experiment, adapt, and learn, and how an organisation deals with miscalculation and mistakes is often crucial to success over time (Rumelt, 1995). Mintzberg, proponent of the idea that strategy can be 'crafted', not planned, used Honda's expansion into the United States as a case in point. The author cited Pascale's account of how Honda stumbled onto success in the American market, as Honda's managers made "almost every conceivable mistake until the market finally hit them over the head with the right formula."

For explaining Honda's successful internationalisation, the BCG proposed Honda's capability in low-cost manufacturing combined with a dominate market position in Japan made for a highly competitive cost position which was used as a 'springboard' for expansion into world markets. Cost breakdowns backed this notion up; motorcycle factories in the UK produced on average 14 bikes per worker per year, whereas Honda produced the about 200 bikes per worker per year. Yet, Honda's capital costs per bike were approximately one-fourth that of a UK manufacturer, despite investing almost four times as much capital per worker (Rumelt, 1995).

PHASE THREE: PRODUCT EXPANSION

The expansion of Honda's product line during the 1970's signalled a shift in product scope. The behind dynamic capabilities fits well with Honda's activities. The dynamic capabilities theory proposes that wealth creation in environments of such rapid change depends on honing internal technological, organisational and managerial processes inside the firm (Teece, Pisano, & Shuen, 1997). Like many Japanese companies, Honda shy away from outlining a rigid strategic plan. According to Pascale's interview with Honda executives, Honda did not intentionally target specific customer segments in the United States, but rather showed ability to experiment,

to learn quickly from mistakes, to rapidly revise design problems and thereby to discover opportunities (Rumelt, 1995). Dynamic capabilities integrates and draws upon areas such as product and process development, technology transfer and organisational learning - all critical parts of Honda's growth.

Porter and Siggelkow (2001) argued that fit and consistency drove competitive advantage and sustainability because strategy involved a whole system of activities, not a collection of parts. Porter (1996) proposed 3 types of fit between a firm's activities; simple consistency, activities that are reinforcing, and activities that result in optimisation of effort. Honda, arguably, falls within the highest level of fit; their activities reinforced each other, but there was much coordination across business units, product divisions and countries. Honda sustained cost advantages in production, while new products possessed advanced engine technology devised first from bikes, then from participation in Formula racing. Coherence across decisions and activities can be exemplified throughout Honda. The decision behind entering Formula 1 was to develop technologies to be deployed in Honda's upcoming range of cars. The coherence comes from one activity benefiting from another, while each achieved their individual goals.

LIMITATIONS OF THEORIES

This paper proposes that the strategic management theories applied to Honda have their limitations. The identified Leadership styles may be applicable to Mr Honda and Fujisawa, but in the case of Honda Motors, it was the combination of leaders that enabled the success of the company, not a single visionary. The RBV perspective is limited in explaining the systems or processes that built up in Honda, such as the emphasis on organisational learning - that is more suited towards capability building, particularly during its later years. Porter's generic strategies are oversimplified as they do not explain Honda's ability to translate knowledge from motorcycle production to developing cars and aircraft. In certain regards Honda followed a similar pattern to that suggested by the Uppsala model but often leapfrogged some stages, moving straight to full commitment to markets, not to mention it has more attributes in common with Born Global firms. However, Honda's first decade was preoccupied with growth in its home market, not that of expanding overseas, so it is not a true Born Global. Despite being Japan's largest motorcycle manufacturer, Honda displayed many attributes more commonly associated with SMEs.

According to the BCG's cost-experience model and the core competence perspective, once a firm has a head-start at doing something, and as long as it exploits the benefits of that head-start, it is very hard to catch up (Rumelt, 1995). Yet, this does not explain Honda's success in the US. Honda never had a head start; in fact, they were close to failure. Only through

learning and adaptation did they eventually succeed. Dynamic capabilities perhaps is the closest strategy that can be accurately applied to Honda. However, while dynamic capabilities may explain how Honda was able to build the supercar NSX, the NSX ended up being a market failure so the notion that dynamic capabilities drove consistent economic performance is not always applicable. Honda demonstrated clear strategic planning when choosing to enter Formula 1 on the basis that technology developed was to be deployed into later commercial products. Yet, Honda's expansion into the US was undertaken on the basis of no firm strategy whatsoever. Even in the BCG's study, influences such as Honda's founders, organisational learning, the management of dynamic capabilities etc., are all absent when clearly they have had an impact.

Prahalad and Hamel offered a simple explanation. They saw Honda as deliberately pursuing a long-term vision of global leadership in internal combustion engines, constantly building competencies in design and manufacturing, and competing through innovating around competitors' product offerings (Rumelt, 1993). For Honda, competition was said to be perceived as a long journey to build deeper core competencies in engine technology, which was to be shared across different product lines (Mair, 1999).

Yet, no strategy explains Honda's apparent ability to reconcile contradictions in strategic dichotomies. Its ability to position itself within the market and yet rely on internal resources and capabilities; its apparent inability to be classified as either a born global or a traditional firm: these demonstrate Honda's unexplainable position within current concepts of strategy. Some have claimed that Honda exemplifies a polar position as a 'stateless' corporation operating in a 'borderless' world (Quinn, 1990); and no theory exists to explain that. Yet, Honda's refusal to accept static trade-offs lie behind many of its innovations that helped shape the company. Indeed, some propose the focus on reconciliation of contradictory dichotomies can be a specific route to innovation (Mair, 1997), but this has yet to be researched in depth.

It is worth noting the concept of strategy and its different meanings between Japanese and Western perspectives. To the Japanese, strategy is less of a competitive master plan and more suited the belief that corporate direction evolves from incremental adjustments to unfolding events (Pascale, 1996). A firm strategy is thus less important than the pursuit of organisational learning. The de-emphasis on strategy can be seen in Sochiro Honda's lack of interest in strategy formulation, and focus on continually improving products to meet the demands of customers.

SUMMARY

It can be concluded that while much of Honda's dynamic history aligns with a number of strategy concepts, none fully explain its success. All have their

limitations; some greater than others. During the course of its evolution, the same core competences in engine technology, the capabilities in learning and the pursuit of engineering perfection remained to drive the company forward. In an attempt to describe Honda, the biggest question may be whether Honda has a single clear strategy at all. De Wit and Meyer (2008) suggested Honda's behavior was more like a yacht: continually changing directions like a yacht 'tacking' in the wind, but continued to advance in a single direction. If organisational learning and adaptation is a clear strategy, then that is perhaps best for describing the company's continual advancement. Regardless, Honda remains a unique case and its strategic evolution shows little sign of slowing down.

REFERENCES

- [1] Barney, J. Firm Resources and Sustained Competitive Advantage. Journal of Management, 1991
- [2] Campbell-Hunt, C., & Chetty, S. Paths to internationalisation among small to medium sized firms: A global versus regional approach. European Journal of Marketing, 2001
- [3] De Wit, B., & Meyer, R. Strategy: Process, Content, Context. London: Thomson Learning, 2008
- [4] Mair, A. Learning from Honda. Journal of Management Studies, 1999
- [5] Mair, A. Reconciling Managerial Dichotomies at Honda Motors. London: Routledge, 1997
- [6] Makadok, R. Toward a synthesis of the resource-based and dynamic capability views of rent creation. Strategic Management Journal, 2001
- [7] Mintzberg, H., & Westley, F. Visionary Leadership and Strategic Management. Strategic Management Journal, 1989
- [8] Pascale, R. The Honda Effect. California Management Review, 1996
- [9] Porter, M. What is Strategy? Harvard Business Review, 1996
- [10] Rumelt, R. The evaluation of Business Strategy. Strategic Management Journal, 1993
- [11] Spanos, Y., & Lioukas, S. An examination into the causal logic of rent generation: Contrasting Porter's competitive strategy and the RBV. Strategic Management Journal, 2001
- Teece, D., Pisano, G., & Shuen, A. Dynamic Capabilities and Strategic Management. Strategic Management Journal, 1997

Corporate Strategies for the Green World

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ABSTRACT

In recent years, the world has seen several changes on the management front. There has been a great rise of the use of Corporate Strategies for the green world to strengthen the frontiers of Strategic Management. This piece has been divided into the following three parts:

- 1) The Concept of going green and the green world.
- 2) Banking sector scene in Pakistan through corporate strategies in the green world.
- 3) Concluding comments.

A conscious effort is going on in Pakistan to introduce corporate strategies for the green world in general and in specific term in Banking Sector. Some of the significant aspects have been identified in this piece and several challenges have been identified in it. It is hoped that the stakeholders will address these issues and translate these challenges into opportunities so that the objective of making the green world through pursuing sound corporate strategies should be pursued as a hot agenda in future.

PART I: THE CONCEPT OF GOING GREEN AND THE GREEN WORLD

GOING GREEN

It consists of designing, selling or funding eco-friendly products and services. Going green is believed to be good for the bottom line. The future is in reusable products, high emission standards, healthy employees relation and transparency in the way a company does business. Natural environment is often described by the Green World.

GREEN MANAGEMENT IN CORPORATE SECTOR

The above consists of having a good brand and reputation, to be an employer of choice and maintain a strong market position, earn trust of the financial markets and innovation in development of new products and services and creating new markets.

GOING GREEN AT WORK

Top Ten Tips in respect of above include: more work with less energy, digitize, do not be a paper pusher, greening the commute - car pooling, taking public transit etc., green sleeves – avoid clothes which need to be dry cleaned, work from home – video conferencing etc., use green materials – use recycled paper and envelopes, redesign the work place, lunch time: place a large order, and get this thing on the act – sharing tips with the colleagues.(1)

PART II: BANKING SECTOR SCENE IN PAKISTAN THROUGH CORPORATE STRATEGIES IN THE GREEN WORLD

Banking Sector

Pakistan's banking sector consists of formal and informal segments. Scheduled banks as on February 28, 2011 had deposits of *Rs. 5.05 trillion, advances Rs. 3.50 trillion and investments Rs. 2.12 trillion. Weighted average lending rate was 13.55% and weighted average deposit rate was 6.04% - showing a spread of 7.50%. However, 58 banks and financial services institutions stood listed on Karachi Stock Exchange as on February 18, 2011. Total market capitalization of above was Rs. 698 b. (US \$ 20). Only eleven percent Pakistanis have bank accounts. Unfortunately, the women percentage is very low i.e. 4%. Consequently, vast scope to develop the banking habit with green marketing concept exists in Pakistan.

Corporate Strategies and Banking Sector

A comprehensive package of Corporate Strategies includes: Internal growth, horizontal dimensional integration, restructuring, stability strategies, financial restructuring, portfolio restructuring, acquisition, mergers, diversification and related aspects. In recent years, Corporate Strategies in the green world were followed in the banking sector. These strategies have included: Privatization of nationalized commercial banks. Currently, the private sector of banking consists of around 86% and these banks have great opportunities of practicing green world Corporate Strategies. The Central Bank of the country namely, State Bank of Pakistan, has taken several measures to help develop good governance practices for improvement of internal controls and paved the way for changing the organization culture. The minimum paid up capital requirements of the bank was raised to Rs. 2.0 billion. Consequently, with green world approach, lot of mergers and consolidation of several financial institutions took place. This process is still continuing and there is a need for further accelerating mergers and acquisition and mergers which in due course of time will take place. Awareness is being created to reduce non-performing loans to maintain the assets quality of the banks and thus help improve the recovery rate. Foreign exchange regime has been liberalized and Pakistani Corporate Sector Companies have been allowed to acquire equity abroad. Middle class employees have been benefiting from the consumers financing regime which was started to give stimulus to domestic manufacturing of household products. The upper limit of mortgage financing has been increased. Legal requirements have been introduced through new recovery losses to ensure foreclosure and sale of mortgaged property. Apart from issuing Prudential Regulations by the Central Bank of the country, specific Prudential Regulations governing consumers and SME financing were also released. Several SME banks were established to help

support microfinance so that poverty alleviation continues to take place. Small and medium business financing has been encouraged. **Islamic Banking**

A special feature of the Corporate Strategies for the green world has focused on expansion of Islamic Banking in Pakistan. Under Article 38 (f) of the 1973 Constitution of Pakistan, it is stated that “The State shall eliminate “**Ribah**”^{*} as early as possible”. The Central Bank of the country established Islamic Banking Department with a clear-cut vision “to make Islamic Banking, the banking of the first choice for the providers and users of financial services” and with a candid mission; “to promote and develop Islamic Banking industry in line with the best International Practices, ensuring Shariah Compliance and Transparency in the Corporate Strategies”. The Central Bank developed three pronged strategies for the development of Islamic Bank namely; full- fledged Islamic Banks can be established in Pakistan: Islamic Banks can set up their subsidiaries and stand alone Islamic Banking Branches can be opened by conventional banks in the country. There has been a steady growth of Islamic Banks in Pakistan and future augurs well for conversion of conventional banks into Islamic Banks in future. However, as of December 31, 2010, various shares of growth of Islamic Banks included: 6% share in total assets, 7% in deposits and 5 % in net financing investment. The branch network is steadily developing throughout Pakistan.

PART III: CONCLUDING COMMENTS

Major challenges for pursuing corporate strategies in the green world include: developing new and innovative products, diversifying sectoral composition for advances, reduction in non-performing loans, attending to large unserved agricultural sector, focusing on SME sector and housing finance. However, our empirical study relating to year ended on December 31, 2010 revealed that selected performance indicators of Islamic Banks are healthy relating to capital adequacy, assets quality, earnings and profitability. It is hoped that Islamic Banks will address the foregoing issues and serve the socio-economic emerging needs of the country in a befitting manner.

Source: 1) Downloaded from Internet on July 02, 2011, <http://planetgreen.discovery.com/go-green/green-work/green-work-tips.html> - 2/7/2011

^{*} As on April 04, 2011, One US\$ was equal to Rs. 85.15 (Dawn, Lahore: April 04, 2011)

^{*} Construed to mean interest charged by the Banks on advances.

Improving Government Processes for Green Administration: A Case Study into the Extension of Building and Construction Administration Processes

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ABSTRACT

The 'green growth' paradigm has been actively embraced by the Korean government since 2008. Amongst areas of green growth, energy saving, green cities, green infrastructure, green management and green life have been receiving much attention from policymakers and researchers alike. Green administration, on the other hand, has been largely neglected. The purpose of this study is to explore strategies to improve administrative processes at government agencies in such a way as to radically reduce carbon emissions resulting from them through 'process expansion.' The paper focuses on the case of process digitalization in building and construction administration, showing how the improvement of processes alone can help cut carbon emissions drastically.

Introduction

Efforts towards the greening of ICT have been made by the Korean government in recent years, in the forms of setting up integrated computing centers and introducing high-efficiency, low-cost servers. Active efforts related to greening by ICT have been made in the area of government administration informatization under the national informatization project. In other words, the effort to increase efficiency through the use of ICT and reduce carbon emissions resulting from national information resources is consistent with the goal of improving 'administrative efficiency,' sought under the Korean e-Government project. However, not all researchers feel that the national informatization project has attained its initial goal of maximizing efficiency and resolving issues in government administrative processes [1][8][9]. One of the oversights, singled out as a main reason for this failure to produce the expected level of efficiency enhancement is, for example, the fact that many existing work processes were digitalized as they were, without redesigning them by eliminating redundant or unnecessary processes [5]. The goal of this study is to explore ways to improve administrative processes in a manner to cut carbon emissions from their sources by focusing on process extension.

Administrative Process and Its Importance

Administration as the duty of the executive branch, as opposed to the judiciary and legislative branches, can, therefore, be defined as 'executive activities and services for the benefit of citizens.' Now, to make the meaning of 'executive activities and services' more concrete, one can give it an operational definition.

The management of administrative processes is important for five main reasons: First, as has been discussed earlier, processes are the essential components of government administration. Administration is the management of workflows, and processes are also the flows of continuous interaction between elements required to attain a given goal.

Second, systems and processes are essentially similar. A system is generally defined as an 'organic whole made up of various components which interact with each other to attain a specific goal.'

Third, processes are a highly important element of an information system, influencing the types of tasks, organizational structure, input and output data and related laws and regulations and, thereby, ultimately determining the characteristics of the system itself [3]. Fourth, processes are the element that is the most apt to explain the ideological undercurrent beneath a paradigm shift. Fifth, processes as a mechanism of interaction between constitutive elements are not easy to identify or analyze.

Green Administration and Administrative Processes

Process extension is one of the most important types of process modification needed to build a green administration system. The biggest cause for delay in administrative processes has thus far been the lack of communication between government agencies and sites in which activities they are to administer take place. Accordingly, processes must be extended beyond the walls of government agencies, and to achieve that, there must be an appropriate shift in administrative paradigm. Such paradigm shift, in turn, requires three pre-conditions as follows:

First, the scope of administrative processes must be extended, both forward and backward (horizontal

extension). The chief reason why administrative informatization efforts failed until now to produce tangible results was that information systems were implemented in such a way as to limit the scope of administrative processes.

Second, process extension must be re-defined concerning internal processes (internal extension). In existing administrative systems, the internal communication process between various departments and sections took the separate form of 'electronic sign-off,' which caused delay in both data and processes.

Third, administrative processes must be extended vertically. The administrative system in Korea has a three-tiered structure, having local administrative agencies reporting to metropolitan cities and provinces which, in turn, report to the national government.

The Definition of Green Administration

Green administration can be given both a narrow and broad definition. Broadly defined, green administration is a new administrative paradigm for achieving growth while protecting the environment by making government administration greener. In its narrow sense, green administration can be defined as a new administrative paradigm for a preventive approach to carbon emissions from administrative activities by reducing them at their sources by improving workflows and process models using ICT [4]. The CO₂ reduction effects of the use of ICT, generally discussed at the levels of resource consumption and waste disposal, energy efficiency, decrease in transportation/logistics demand, the efficient use of space and work efficiency, belong to the broad category of efficiency in terms of consumption, movement and use of space. Efforts for the reduction of carbon emissions, in other words, are measured through increase in efficiency in consumption, movement and space use, which are in line with the directions that have been pursued in the national informatization project; namely, the digitalization of administrative information, reduction of paperwork, increasing the efficiency of resource use, onsite administrative support, reduced office visit needs and the consolidation of information resources

Table1. Green administration and e-Government

Green administration		e-Government
Efficient consumption	Resource use/waste disposal	· Digitalization of information · Reduction of paperwork
	Electricity and other energy consumption	· More efficient management of information resources
Efficient movement	Movement of humans and goods	· Onsite administrative support · Reduction of office visits
Efficient space use	Use of space	· Digital storage of administrative documents
		· Consolidation of information resources

Building and Construction Administration and Its Digitalization

The digitalization of building and construction administration began in earnest back in 1998, when an

information system (AIS) was developed for it. The system was progressively introduced in more local administrations nationwide, and today all front-office processes of building and construction administration are completely digitalized [10]. The new web-based system is currently used in local government agencies nationwide, branded as "Seumteo (e-AIS)." Meanwhile, u-Seumteo, a third-generation online building and construction administration system, has been introduced in Seoul, after a pilot operation in 2010. The u-Seumteo system provides a diagnostic function for determining the legality of a building project in advance and supports an automatic drawing-based review process.

Horizontal Extension: Ex-ante and Ex-post Process Extension

To eliminate this inefficiency during the preliminary process, a preliminary diagnostic service to determine the legality of a construction or other building-related project is currently being piloted under the u-Seumteo information system plan. Through this preliminary diagnostic process, it can be established online, for instance, whether a construction project planned on a lot is legally allowable, and what the scope of the construction permit that can be granted for that lot could be, without having to visit a government office to make a personal inquiry. Before follow-up stage processes can be included in main processes as part of process extension, a legal and regulatory overhaul is necessary. After the appropriate legal and regulatory overhaul, IT can be integrated with administrative processes in a manner to enable concrete steps toward green administration.

Internal Extension: Integration of Internal and External Communication Processes

Integrating internal and external communication processes means extending the information systems and data flows for their sharing with collaborating external organizations. Although a one-stop service can be easily enabled at a technical level, it cannot be enabled at a practical level unless process extension is carried out to internalize external communication.

Vertical Extension: Real-time Sharing and Analysis of Building and Construction Policy Information

At Seumteo, under its process extension initiative, the vertical circulation of data is integrated into processes related to the management of data generated from building and construction administration services. As a result, the time-consuming process of drafting and compiling monthly and annual reports and statistics and preparing building statistics books is now no longer necessary

Carbon Reduction Effects of Process Extension

The total annual reduction of carbon emissions, resulting from the use of Seumteo, attributable to the increase in consumption efficiency is estimated at 27,000tCO₂, the efficiency in consumption being improved through online processing of permit and license issuance (submission of electronic documents) and online internal communication and sharing of

digital records (including building registers) between internal departments and sections [7].

TABLE2. Result of Consumption efficiency

\	Method	Document quantity
Consumption efficiency	Online processing of permit and license issuance	838,264,840
	Shared use of building and construction records including building registers	2,121,276
	Internal use of digitalized building and construction records	512,150,208
Total(unit: tCO ₂)		27,930

*Increase in consumption efficiency (reduction in paper consumption) Amount of carbon reduction = Number of permit/license issues × Paper consumption per permit/license X [20.65/1,000,000(coefficient of paper consumption reduction)]

The total annual reduction of carbon emissions, resulting from the increase in movement efficiency, through online processing of permit/ license issuance, online supply of forms and building registers and the shared use of building registers, decreasing the number of office visits, is estimated at 21,000t.

TABLE3. Result of Efficiency in movement result

\	Method	Number of Cases	Amount of carbon reduction
Efficiency in movement	Online processing of permit and license issuance, making office visits unnecessary	573,377	917
	Building registers and forms provided online	12,236,314	19,569
	Shared use of building and construction records including building registers	707,092	1,130
Total(unit: tCO ₂)			21,617

*Increase in movement efficiency (reduction in transportation) Amount of carbon reduction = Number of permit/license issues × [10Km (average round-trip distance)]/[10.76Km (kilometers per liter)]X [7400/10,000,000 (heat rejection)]×[0.783 (carbon emission coefficient)] ×[44/12(molecular weights of co2/atomic weights of co2)]

Meanwhile, the total annual reduction of carbon emissions, resulting from the increase in space use efficiency through the decrease in permit/ license application documents stored and the decreased use of storage space by electronic sharing of records, is estimated at 233t.

TABLE4. Result of Efficiency in space use

\	Method	Amount of carbon reduction
Efficiency in space use	Reduction in space requirements for storing supporting documents submitted for permit and license applications	43
	Shared use between internal departments and sections: document archives reduced	190
Total(unit: tCO ₂)		233

*General document archives (storages) emit 46.4 kg-CO₂/m² in annual total emissions [2]

*100 building drawings, and permit/license application documents stored per 3.3m² [6]

Conclusion

This study explored ways of achieving green administration through improvement of administrative processes at the same time as confirming concrete effects of administrative process improvement. Directions for future research on the improvement of government administrative processes are as follows: First, future research must focus on the linkage between organization, legal and regulatory framework and processes, rather than on data, so as to reflect the imperative of a wholesale redesign of processes. Second, process improvement measures must first be implemented at the level of basic local government agencies that are the points of contact with citizens and that are, for this reason, the most important nodal points in green administration in which basic data are generated, and the appropriateness and relevance of government services to the needs of citizens should be guaranteed. Third, the realignment of government information systems that are currently in operation with the requirements of green administration must be preceded by comprehensive research on system integration and re-design.

REFERENCES

- [1] Cho, S. H., 2002, 'A Strategy for the Effective Management of Government-to-Citizen Services,' Korea Institute of Public Administration.
- [2] ICT Policy Research Council of Japan, 'An ICT Policy Research Report for Responding to Global Warming,' Japanese Ministry of Internal Affairs and Communications, 2008.
- [3] Kim, S. H., 'u-IT-Aided Innovation Strategies for Administrative Processes: With Focus on the Parallel Evolution between Technology and Society,' MA thesis presented at Yonsei University, 2006.
- [4] Kim, S. H., Kim, S. W., Jeong, Y. S. & Lee, Y. B., 'An e-Government Development Strategy for Green Administration,' National Information Society Agency, 2009.
- [5] Lee, Y. B., 2009, 'A Study on the Management of Government-to-Citizen Service Processes: The Case of Local Administrative Services,' PhD dissertation presented at Kookmin University
- [6] Ministry of Construction and Transportation, 'The Roadmap for the Informatization of Building and Construction Administration (ISP/BPR),' 2003.
- [7] Ministry of Public Administration and Security, 'Basic Plan for Green Informatization,' 2009.
- [8] Seoh, J. W., 1998, 'A Manual for IT-Aided Administrative Process Innovation,' Korea Institute of Public Administration
- [9] Seoh, J. W. & Myeong, S. H., 'The Analysis of the Process Flow in Real Estate Transactions Using a Process-Oriented Approach,' Journal of the Korean Association for Public Administration, Korean Association for Public Administration, 40(1), pp.317-337, 2006.
- [10] Jeong, Y. S. & Kim, S. H., 2000, 'An Analysis of the Building and Construction Administration Informatization Project,' Journal of the Korean Association for Regional Information Society, Vol. 3, No. 2.

“Consumer Acceptance on Eco Friendly Shopping Bag” Case Study: Carrefour Green Bag

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Abstract

Environmental concerns have been on the agendas of industry and academia for more than 30 years. Global warming issue is a common thing that come forefront. But do we really understand what exactly global warming and the existence in the earth? Global warming is the increasing average temperature of the earth near surface of the air and the ocean. Facing this issue, many companies do some effort to make innovations through their products. Some of them produce an environmental friendly product as their participation to avoid global warming. Carrefour is one of the global companies who make innovation by producing Green Bag as an eco friendly shopping bag. Green Bag has similar function with plastic shopping bag which is to carry items purchased. The difference between two of them are Green Bag able to reuse, while the plastic bag is disposable and unable to reuse. These plastic bag characteristics make disadvantage effect to our environment since plastic material needs hundreds of years to lose at soil. Nowadays, the numbers of plastic trashes increase every year and can be threatening to human life. This research will measure the acceptance of consumers in general and consumers of Carrefour Sukajadi Bandung in case of their changing behavior from plastic bag to Green Bag product.

The research measurement used three variables, which are product characteristics, adoption rate, and the communication strategy. Descriptive and exploratory research with non-probability sample was chosen as a technique to distribute the questionnaire. Based on resulted analysis, it shows that consumer acceptance on Green Bag has positive response, but there is lack of Green Bag promotion, which makes consumers have less motivation to buy the Green Bag product.

Keywords : Consumer Acceptance, Eco Friendly, Shopping Bag, Green Bag, Carrefour

References

- [1] Armstrong, G. *Marketing an Introduction*. Prentice Hall, 2007
- [2] Schiffman, Leon G & Leslie Lazar Kanuk. *Consumer Behavior* (9th ed). New Jersey: Pearson Prentice Hall, 2007
- [3] Malhotra, Naresh K & Mark Peterson. *Basic Marketing Research, A Decision Making Approach* (2nd ed). Pearson International Edition, 2006
- [4] Kotler, P. *Marketing Management*. Prentice Hall, 2003
- [5] Fraj, Elena and Eva Martinez. Environmental values and lifestyles as determining factors of ecological consumer behavior; an empirical analysis. 2006. *Journal of Consumer Marketing*.

***Kabuki* and Global Education: Management Philosophies and Executive Performances**

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The Guideline of *Kabuki* and Global Education

Before we go into the details of introducing *Kabuki* culture, our goal for *Kabuki* and global education is summarized in the following research guideline of **Diagram 1**.

Global education is based upon the bi-culture doctrine which also exists in *Kabuki*. A *Kabuki* player is ‘a **bi-cultural management identity**’ who acts as male or bold cultural person and female or gentle person in accordance with changing situations and preset roles. His position daily requires *an imaginative power* which creates both ‘innovation values’ and ‘innovation processes’ to produce **performance arts**.

The same imaginative power is required by all global players including CEOs, executives, managers, human resources and professionals who communicate with myriad global opportunities and who are also looking for the vast global educational possibilities.

What Can We Learn from *Kabuki*?

The Origin of *Kabuki* Culture

Kabuki can be symbolized by its founder *Izumo no ‘Okuni’* (Shinto shrine maiden 1577?). The origin of *Kabuki* teaches us about the seeds and buds of these sustainability powers with their values and processes which we are looking for in global educational resources. These seeds and their buds are:

Kabuki in the Edo Age (1603-1868)—An Era of Peace and Rigid Governance

In spite of the fact that *Kabuki* was frequently suppressed by the Tokugawa Government’s regulations in Edo for about 280 years, *Kabuki* had managed to sustain and develop with popular support from the bottom of the rigid class structure which included the growing class of wealthy merchants. When necessary the government strategically de-regulated *Kabuki* to escape from the people’s criticism regarding restrictions. In that sense, *Kabuki* was identified as bad and good at the same time. In the Edo federal era, the modernization spirits in Japan was progressively fermented amongst a generally, intelligent, educated public in parallel with the growth of a merchant class culture, ie. the *Kabuki* culture. The cultural contexts of the *Kabuki* culture can be summarized in the following aspects.

1. Media Roles: *Kabuki* had a role in journalism. In those days there were no newspapers, no radios, and no television. *Kabuki* plays and theater were treated like public information sharing centers.

2. Educational Tools: *Kabuki* was like a textbook to teach ‘Social Justice’ by acting out those cases and models (Indeed *Kabuki playwrights were intelligent and learned, educated and gifted and had flair!*). The audiences could learn Good Manners from the *Kabuki* stages and actors’ performances. Therefore the general public could share common knowledge about the liberal arts and ethical conduct from *Kabuki*.

3. Criticism Directed toward Warriors (Ruling Upper Class): The merchant class was positioned under the *samurai* or warrior class within the feudal social class system. However they could have a semi-public or a popular tool to evaluate and criticize the upper class via the *Kabuki* scenario, ie. *Chushingura*, a famous story about loyalty and social justice of the 47 *samurai*, with great performances on the stages. Within these social confines the governed people could enrich and establish a popular culture to appeal for democracy to the government.

4. Resistance to Power Structure: In any kind of performance arts, we can perceive their message of ‘a spirit of defiance.’ *Kabuki* and its players have also developed and kept this hidden spirit of defiance in order to polish their way of arts or *geido*. For example, while the *samurai* adhered to their Confucianism, *Kabuki* actors made the Actors’ Confucianism Textbook to spiritually compete with equal professional doctrines.

5. Entertainment Town Development: *Kabuki* was closely related to ‘an ideal dream town development’ which seeks to transcend the natural toils and stresses of daily life. Thus the government assigned side by side, the two Bad Places of *Yoshiwara* (red light district) and the *Kabuki* Theater Town because those two places were needed for the Edo public to relax from government controls.

Why is *Kabuki* Lasting?

The things which are lasting have some kind of truth. *Kabuki* is a popular culture and now a classic culture. There is a good lesson to learn about the imaginative power in *Kabuki* which is its vital and lasting energy that successfully assures both the innovative values and processes in *Kabuki* culture beyond time and space. These *Kabuki* logics and theories are all identical to the popular culture’s core characters that are ‘fun and joyful.’ These core characters can be grouped into the following categories.

1. Without any reason, *Kabuki* is fun and just simply joyful.
2. *Kabuki* is very colorful and gorgeous like picture cards.

3. *Kabuki* is fantastic play and entertainment, ie, revered thoughts and actions, rotating stage, extended stage, coming up stage, hanging down play, acrobatics, swinging across the ceiling, etc.
4. *Kabuki* is creation of that dreamy and illusive world.
5. For the audience, *Kabuki* promotes recovery and leisure after stress and working hard.
6. Good *Kabuki* plays are nominated by the *Kabuki* family and periodically repeated in order to attract the audience's interest and comparatively evaluated by the audiences.
7. *Kabuki* creates the theatrical town within its facility and off the theater with shops and restaurants which vitalize the entire theatrical town district.
8. *Kabuki* is historically skillful to develop an effective and cooperative network strategy with other performance arts to make more fun and joy for the audience's satisfaction.

Transcending Bridge

Let's consider the intrinsic qualities of *Kabuki* as 'a transcending bridge' for constructing global business education as shown in the following **Diagram 2**.

The *Kabuki player and global player* can be identified as 'a transcending bridge' from the global educational perspectives. So far we have learned that *Kabuki* has 'the bi-cultural identity' with its imaginative power built into each player. That imaginative power is the engine for making the innovative network of destructive creativity with the innovation value mixing along with the innovation styles (processes and behaviors) mixing.

These networking abilities and 'the bi-cultural identity' are herein symbolized as the concept of 'a transcending bridge.' In other words, *Kabuki* self-identity management consists of building 'a transcending bridge' by networking *Kabuki* players, their families, theater owners, audience, the stage, the music (*Gidayu*, *Nagauta*, *Kiyomoto*, *Tokiwazu*, *Ohayashi*, etc), sponsors and the gorgeous costumes as shown in Diagram 2, **Positioning 'Transcending Bridge' for Global Education**

For contemporary Americans and global players who are interested in the educational and cultural seeds in *Kabuki*, the essence of *Kabuki* can be shared as 'a transcending bridge' for global business and global education. *Kabuki's* multiple roles of 'a transcending bridge' consist of each actor's splendid individual performances of *seeing* and of *being seen* which have developed from the long historical circumstances of discrimination, restrictions and duress, surviving these hardships within the social structure, then rising above these difficulties in a paradoxical individualism; they are human models of social justice with an underlying freedom from male/female qualities and a spirit of defiance which enforces their powerful self-expressive performances.

Performance Arts in *Kabuki* and Business

One *Kabuki* player can perform three roles (reciting, acting performance and dancing) all at the same time. Also we can note that the player's qualities are: 1. **acting** or *ugoki*, 2. **face** or *kao* (outer appearance), and 3. **form** or *sugata katachi*.

In the same way, the CEO's qualities as a global player in the company and society are; 1. **acting** (*professional abilities, skills and arts*), 2. **face** (*organization's symbol as outer face*), and 3. **form** (*his overall attracting power*).

And the *Kabuki* players' acting patterns have an historical truth which have built up over time at the specific sites, their appearances in theater occasions, and time and place. These factors are all woven into the accumulation of their practices, performances and efforts over the years. And that cultural characteristic, continuation of the performance arts relates to continuation of the family in a mysterious symbiosis. This type of mysterious continuity is quite similar to the Toyota group management patterns.

Before the *Kabuki* performance is set, there is the rhythm of the relations of *seeing* and *being seen*. Rhythm with 'sensing' the real life by *seeing* and *being seen* in business and management make the structural patterns of *Kabuki* player's as well as the CEO's **acting, face, and form**.

If we say that rhythm is 'sensitivities' and unspoken philosophies, the relations between their visible performances and their invisible 'sensitivities' can be recognized by others such as audiences and related people in business and management. Now the question: is there anyone who can know the 'sensitivities' from the visible performances?

Toyota management in America is also expected to enwrap the relations between the visible performances and invisible sensitivities which have been built into its Japanese corporate culture in Japan. But we have found a mismatching of visible performances with invisible 'sensitivities' due to immature *Kabuki* or 'another' **Kabuki World** in other countries, that is lacking in 'sensitivities' or *rhythms of philosophies* to polish the essence of *Kabuki*, which relate to craftsmanship or *shokunindo* and merchant spirits or *shonindo*.

Diagram 2

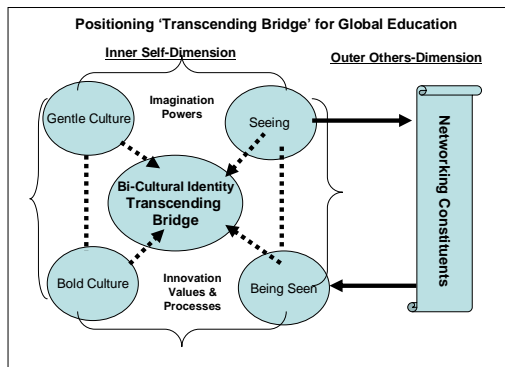
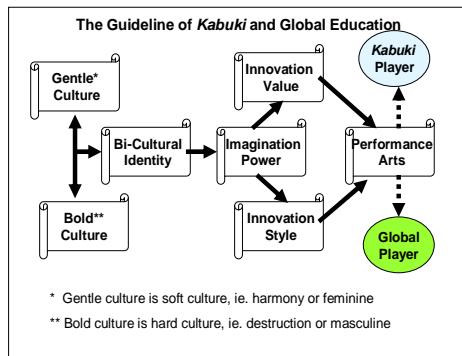


Diagram 1



The Role of Biographical and Demographical Variables as Moderators in the Prediction of Turnover Intentions

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ABSTRACT

One of the significant challenges today's organisations have to face is voluntary employee turnover. The aim of the study was to explore the moderation of biographical and demographical variables with predictor variables of turnover intention (TI). A secondary data analysis (SDA) was performed in a quantitative research tradition on the cross-sectional survey data collected from a large South African Information and Communication Technologies (ICT) sector company (n=2429). The findings confirmed third-variable relationships gender, race, age, marital status, educational and job level contribute statistically significantly to the TI prediction equation. Practical implications suggest a greater understanding of implications on triple bottom line and workforce diversity.

INTRODUCTION

Studies that report results on reasons why employees choose to leave or stay with a particular organisation [6] [11] [16] [17] [21] are gaining importance and most of them focus on a set of negative consequences that are associated with employee turnover [3] [19]. Corporate sustainability issues are gaining momentum and an example of this is the behaviours of the modern and informed investor who no longer assesses the quality of the organisation at present, but the organisation's risk management and whether it has established sustainability strategies pertinent to its business [15]. As a result, employee turnover and its associated expenses for organisations are a key challenge [3], specifically within a triple bottom line framework, which binds organisations to corporate strategies focused on profit, people and planet [15].

The role of biographical and demographical variables in the prediction of TI remains unclear as I/O psychological literature provides very little substantial links between the predictive model of TIs (work engagement, burnout, organisational citizenship behaviour and work alienation) and biographical and demographical variables. For this reason, it was strongly suggested in an earlier study [7] that the contributing effects of biographical and demographical variables in predictive models be tested. Future researchers were urged to match greater numbers of predictive variables when attempting to explain organisational attitudes and behaviour (such as TIs) [7]. A more complete understanding of TIs should secure solutions to more effectively manage employee turnover. On both a local and global scale it could prove to be beneficial

for management systems to become more effective in managing employee turnover as it contributes to the movement towards sustainability. [15] clearly states that boards of directors are responsible for the risk management and decision-making in terms of the triple bottom line – profit, people, planet – and to take into account future generations' needs. Therefore, if employee turnover is better managed, people risk is reduced. The main objective of the research is to determine whether certain biographical and demographical variables have a moderator effect on the predictive model of TIs. The predictive model of TI has been substantiated i.e. work engagement (WE) and organisational citizenship behaviour (OCB) were negatively related to TI, and burnout (BO) and work alienation (AL) were positively related to TI [8]. It is on this predictive model of TIs that the possible moderator effects will be tested.

However, it first has to be made clear what the term moderator means. A moderator is defined as "a qualitative [e.g. gender] or quantitative [e.g. job level] variable that affects the direction and/or strength of the relation" between a predictor variable and an outcome or predicted variable [2, p. 1174].

Biographical variables in relation to the research sample will now be examined. Several studies support moderator effects of *gender* in the prediction of TI [1] [4] [24]. Gender was also significantly related to the BO subscale depersonalisation in the effect of work arrangements on BO. Males reported higher levels of depersonalisation than females [1]. *Hypothesis 1 (H1)*: Gender moderates in the prediction of turnover intentions.

Contradicting results exist for the relationship between *race* and the predictive model of TI. In a study investigating possible antecedents of TIs, neither age, education levels, tenure, or race had any significant impact [9]. The opposite results were found by [12] that both gender and age were significantly and negatively linked to TIs. *Hypothesis 2 (H2)*: Race moderates in the prediction of turnover intentions.

Findings on the relationship between *age* and the predictive model of TI showed that older age relates negatively and significantly to an employee's intentions to quit [22] [23]. *Hypothesis 3 (H3)*: Age moderates in the prediction of turnover intentions.

Results on the relationship between *marital status* and the predictive model of TI found that employees with a spouse and/or children experienced work-family conflict to advance more easily into

organisational attitudes such as job satisfaction and turnover intentions than their single, childless colleagues [13]. *Hypothesis 4 (H4)*: Marital status moderates in the prediction of turnover intentions.

[18] found that the work engagement subcomponent *dedication* “was more often experienced among the professionals than [the] non-professionals” (p. 164). The findings of [5] are in line with those of [18] and stated that the group with additional professional qualifications reported higher WE and lower BO scores. Therefore, *highest educational levels* showed to have an effect on the predictive model of TI. *Hypothesis 5 (H5)*: Education level moderates in the prediction of turnover intentions.

The *demographical variable, job level*, and its relation to the research sample and the predictive model of TI will now be examined. Findings showed that lower organisational levels relates negatively and significantly to an employee’s intentions to quit [23], while the results of [1] are dissimilar. Organisational level has been related to BO [1] and job position has been shown to be significantly related to WE [14]. These incongruent findings guided the researchers to the final research hypothesis to be tested. *Hypothesis 6 (H6)*: Job level moderates in the prediction of turnover intentions.

RESEARCH DESIGN

Research approach.

A SDA was performed on a subsection of the research in progress of Bothma and de Braine’s cross-sectional field survey data. The data analyses followed a correlational and *ex post facto* approach.

Research method.

Sample and sampling procedure. A heterogeneous work force (N=23134) of a large South African ICT sector company, consisting of operational and specialist employees up to middle management, represented the unit of analysis for this study. A census-based sampling approach was followed to ensure complete enumeration of the organisation. The respondent sample (n=2429) yielded a response rate of 11%. The majority of the respondents were male (63,2%), white (44,1%), and either between the ages of 30–39 years (39,5%) or 40–49 years (36,1%). Most respondents were married and cohabiting (69,1%), and indicated that their highest academic qualifications were matric or less (40,7%), or having obtained a national diploma or national higher diploma (26,9%). The managers and operational managers constituted 18,4% of the ICT company workforce, operational workers 54,9%, and specialist workers 26,7%.

Measuring instruments. Biographical and demographical data were obtained. The instruments used were the Utrecht Work Engagement Scale-17, the Maslach Burnout Inventory-Human Services Survey-20, the helping behaviour questions to measure OCB, the alienation scale, and the Turnover Intentions Questionnaire were used [cf. 8].

Research procedure. A research invitation was emailed to each employee within the sample; explaining the purpose and significance of the study

and guaranteeing confidentiality. A web-link was added to each invitation, which provided direct access to a web-based survey application.

Statistical analysis. The SPSS programme [20] was used for the statistical analyses. The inferential statistics performed included the use of multiple regression analyses and *ANOVAS*.

RESULTS

Moderator analyses of biographical variables.

Within this study it is postulated that the predictive model of TI is moderated by certain biographical and demographical variables. The predictive model of this study is based on the regression equation of the prediction of TI [$TI = 1,836 + 0,495AL + 0,318BO - 0,180WE + 0,091OCB$] [8] and moderator effects are tested within this framework.

The hierarchical multiple regression method was used to test whether gender, race, age, marital status, and highest academic qualification act as possible moderators in the prediction of TI. [10] suggested that multiple regressions are the preferred method for the testing of moderator effects. First, *ANOVAS* were conducted on each of the 5 models for each variable. The *F* statistics of each of the models were statistically significant ($p=0,000$). A linear relationship between each of the predictor variables of each model and TI therefore exists. The statistical parameters of gender, race, age, marital status, and highest academic qualification were used to formulate different equations to predict TI.

H1 predicts that gender has a moderator effect in the prediction of TIs and the female category provided for a statistically significant moderator effect. H2 predicts that race has a moderator effect in the prediction of TIs. H2 was supported and BO was linked to White, Coloured, Asian, and Indian groups. OCB was linked to Coloured groups and AL was linked to White groups. H3 was supported by the results that certain age categories presented statistically significant moderator effects. The age category fifty and older accounted for moderator effects in the TI equation, both on its own and when interacting with the OCBs. H4 predicts that marital status has a moderator effect in the prediction of TIs. In the predictive equation, marital status (being married and cohabiting) was linked to BO, while the status of being divorced, separated, or widowed was linked to AL.

H5 predicts that highest academic qualifications have a moderator effect in the prediction of TIs. The results showed that post-school qualifications such as certificates or diplomas, national diplomas or national higher diplomas, and Bachelor’s degrees or equivalent qualifications or post-graduate degrees contributed as moderators, together with WE, BO, OCB, and AL, in the prediction of TI.

Therefore, the above stated data supports the hypothesis that the biographical variables gender, race, age, marital status and highest educational levels are moderators in the prediction of TI.

Moderator analyses of demographical variables.

As in the case of the first group of hypotheses, a (similar) hierarchical multiple regression method was used to test whether job level acts as a moderator in the prediction of TI. Stating the procedure briefly, an *ANOVA* was conducted and significant levels for the *F* statistics ($p=0,000$) were obtained, suggesting that a linear relationship between the predictor variable and TI does exist. The statistical parameters of job level were used to formulate an equation to predict TI. The results revealed that the job level of operational workers contributes a moderator effect to the WE, BO, and AL predictive equation of TI. Thus, the data support the hypothesis that job level as a demographical variable is a moderator in the prediction of TI.

DISCUSSION

To the researchers' knowledge this is the first study that includes the effect that biographical and demographical variables have on WE, BO, OCB and work alienation as predictors of TI. The hypotheses stated that certain biographical and demographical variables are moderators in the prediction of TI, which was supported by the results of the hierarchical multiple regressions.

The biographical variables that are statistically significant moderators in the prediction of TI include gender, race, age, marital status, and highest academic qualification. H1 was confirmed by the results that showed moderator effects, specifically that females are more likely to moderate the predictive equation of TI, than males. H2 stated that race is a moderator in the prediction of TI and the results confirmed the hypothesis. Burnt out employees, specifically White, Coloured, Asian, and Indian employees have been found to be more likely to experience TIs. BO shares a positive, predictive relationship with TI [8] and this study's results show that the predictive nature of the BO-TI relationship is consistent across different races, except Black groups. The results also show that Coloured employees enacting OCBs are more likely to experience TIs than their White, Asian and Indian colleagues, and that alienated White employees are more likely to experience TIs than their Coloured, Asian, and Indian colleagues.

The results also supported a moderator effect in the testing of H3 and showed that older individuals are more likely to experience TIs, and even more so if their OCBs decline, than individuals between the ages of 19 and 49. A possible explanation for this finding is that, as employees move closer to retirement age, they experience greater intentions to leave the organisation and, therefore, withhold their citizenship behaviours. These employees may argue that there is no purpose in investing in the effective functioning of the organisation when they will be leaving in a few years' time.

H4 tested whether marital status has a moderator effect on the predictive equation of TIs, and the results supported the hypothesis. The result of the interaction between being married (and cohabiting) and experiencing BO implies that burnt out, married,

cohabiting individuals tend to experience greater TIs than their single, divorced, separated, or widowed colleagues. A possible explanation for this seemingly unlikely interaction is that when a married individual experiences BO symptoms, he or she may lean more towards turning over because he or she has the added financial advantage of an employed spouse to sustain him- or herself. The results also suggest that alienated divorcees, widows, widowers, and separated individuals are more likely to experience TIs than their single or married and cohabiting colleagues.

H5 stated that highest educational level is a moderator in the prediction of TIs and this was supported with evidence. All post-school qualifications were found to contribute as moderators, together with the predictive equation of TI. From this result it can be inferred that the more educated individuals are more likely to experience TIs than those individuals whose highest academic qualification is matric or less. One can argue that less academically qualified individuals may not perceive their career options to go beyond those the institution provides, whereas the more educated individuals may be presenting withdrawal behaviours [e.g. job search behaviours and TIs; 11] and search for "greener pastures". Professional employees in the ICT sector company seem to agree with studies that show professionals to enjoy higher WE levels [5] [18] and lower BO levels [5].

H6 tested for a moderator effect between job levels and the predictive equation of TIs and the results supported the hypothesis. The job level of operational workers is the only demographic variable included in the study and it added a statistically significant moderator effect to the WE, BO, and AL predictive equation of TI. The relationship that job level (or job position or organisational level) shares with some of the predictor variables of this study has also been noted in the relevant literature, which stated that it is significantly linked with WE and BO [1] [14]. This moderator effect implies that lower-level workers are more likely to experience TIs than specialist workers, managers, and operational managers.

Being knowledgeable about organisational attitudes and demography of employees in the prediction of TIs is viewed by a Chinese study as a practical implication [24]. Another practical implication is a greater understanding of the implications on workforce diversity and the prediction of such trends in the SA ICT sector.

The aim of the study described in this article was to increase management understanding of sustainability issues and risk relating to the *people* issue of the triple bottom line – profit, people, planet [15]. The study highlighted biographical and demographical characteristics involved in the voluntary employee turnover process, as the profit issue relating to voluntary employee turnover has been documented in relevant literature [3] [19].

REFERENCES (are available upon request)

Consequences of Healthy Workplace in Hotel Industry: A Case Study of Hotels in Chiang Rai Province

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ABSTRACT

Healthy workplace has become a major challenge facing the Thai hospitality industry to improve people capacity from happiness to better service quality and to serve the quest for an inner CSR. The purpose of this study is to validate a causal relationship model for testing the effect of healthy workplace programs in hotel industry in Chiang Rai province to the main dependent variables. The results showed that healthy workplace had significant effect to intrinsic rewards, job satisfaction, employee commitment, social support, individual autonomy, and extrinsic rewards. In addition, the effect of employee commitment was mediated by healthy workplace and job satisfaction. The results suggested that an implementation of healthy workplace would create job effectiveness which may lead to positive productivity.

INTRODUCTION

Burton defined healthy workplace as “A state of complete physical, mental and social well-being, and not merely the absence of disease [1, p. 15].” With respect to the WHO definition, the healthy workplace is defined as a workplace that enables the growth and development of its members by creating a culture that focuses on the physical work environment (occupational health and safety), health practice factors (lifestyle), psychosocial factors (work organization and workplace culture), and an association to the community. Assumption and practices of a healthy workplace program mainly concern with the belief that business should take a moral code and fundamental human right to its daily activities and organizational policy [1]. In this regard, implementing a healthy workplace that has a significant culture of safety practice and employee health improvement either by reducing accidents, preventing diseases or encouraging employee participation is thus a moral imperative.

With respect to consequences of a healthy workplace, positive outcomes have shown healthy work environments to be positively related to such several forms of job effectiveness as employee satisfaction, commitment and supportive environments. Given the emphasis on healthy workplace outcomes, Lowe, Harry, and Shannon [2] conducted a study focusing on employees’ perceptions of a healthy work environment. Their findings illustrated that the perceived healthiness of workplace atmosphere was

significantly related to job satisfaction, employees’ commitment, workplace morale, number of days employees’ self-reported absenteeism, and intention to resign from a current job. In addition, they found that intrinsic and extrinsic rewards, social supports, job demands, autonomy and influence, and resources available were significantly related to perceptions of a healthy workplace.

In addition, Lowe [3] categorized the consequences of the healthy workplace into individual and organizational outcomes. His major consequences of individual level can be thought of as an increase or decreased in the following outcomes; anxiety, burnout, readiness to change, depression, health problems, direct medical costs, injuries, job satisfaction, long-term disability, employee capability, physician visit, psychological distress, self-esteem, self-rate health, ulcers, and use of medication. At the organizational level, several important outcomes can be gauged in the form of absenteeism, employee’s commitment, early retirement, health benefit utilization, work performance, morale, number of applicants per vacancy, organizational learning, customer satisfaction, quality of job applicants, quality of service, retention, skill development, skill utilization, teamwork effectiveness, worker’s compensation claims, and organizational conflicts.

Concerning the quality of work life in an organization, workforce development should be addressed in developing countries. Hodgins, Battel-Kirk, and Asgeirsdottir [4] showed that more than 80% of people in developing countries are struggling with occupational diseases, injury and death. In Thailand, approximately 40 percent of Thai works in the industrial and service sectors have health and safety issues which have raised special concern to the Thai society. Chiang Rai is chosen to be a research site for this study. Chiang Rai is the northernmost province of Thailand located within the Golden Triangle, where the borders of Thailand, Myanmar and Laos converge. It is one of the most famous tourist destinations and business centers to international trades. In 2009, the statistics showed substantial investment for tourism industry, particularly in hotel and resort sector. The total number of visitors was 1,680,248 and the number of accommodation establishment was 111 hotels providing 5,519 rooms [5]. These numbers imply that tourism is a key economic driver for Chiang Rai province.

At present, the economic and societal changes seem to put a high level of stress to the workforce. Also, changes in tourists' taste and demand in the global level has posed difficulty to the service providers. These impacts of changes in global tourism are inevitable for hotel workforce in Chiang Rai. Thus, an intriguing issue to a hotel management team is whether the implementation of healthy workplace programs would help their staff to cope with stress and to communicate the importance of good hospitality for each individual. At the same time, the hotels can develop well-adjusted, trained and committed people to perform their activities. To achieve this goal, information that helps the hotels identify the effectiveness of healthy workplace programs and achieves their CSR policy is essential. Thus, the purpose of this study is to examine employees' perception of the consequences of healthy workplace programs in Chiang Rai's hotel industry focusing in intrinsic rewards, job satisfaction, commitment, workplace moral, communication/social support, individual autonomy, and extrinsic rewards. It would be valuable to see whether healthy workplace programs can post direct effects to the tested dependent variables. The findings of this study would provide improvement directions to hotel staff members' quality of living, overall work performance and strategic human resource development management.

METHODOLOGY

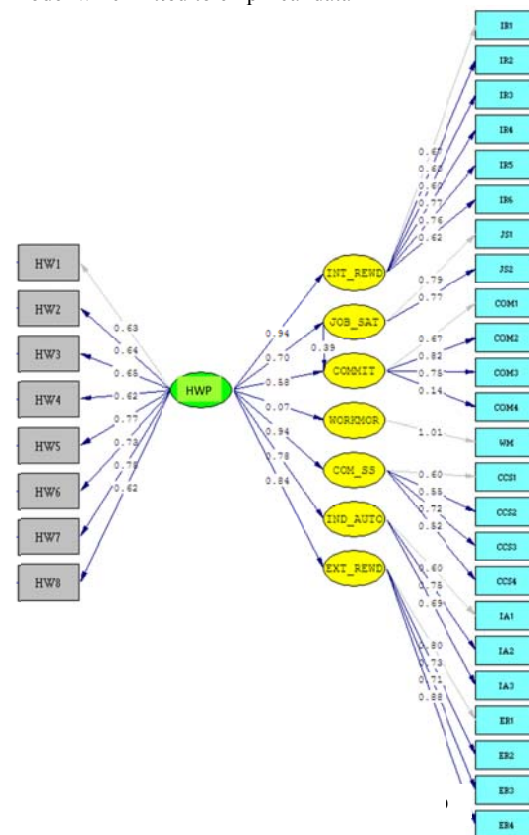
The purposive sampling was selected because it allows researcher to determine the contexts of hotels which are undergoing the healthy workplace in Chiang Rai province. Chiang Rai was chosen as a research site because it is one of the six pilot provinces designated to be developed under the healthy workplace model by the Thai Health Promotion Foundation Data collection was conducted via questionnaires administered to 300 employees of hotels in Chiang Rai where healthy workplace programs were implemented. The questionnaires employed in this study are research-based and standardized measures. The questionnaire included a wide range of workplace-related outcomes, making it sufficiently suited for analyzing contextual factors associated with hotel employees' perception of consequences of the healthy workplace programs. The dependent variable is employees' perception of healthy workplace. The independent variables include intrinsic rewards, job satisfaction, employee commitment, workplace moral, communication/social support, individual autonomy, and extrinsic rewards. LISREL was employed to analyze the data.

RESULTS

The consequences of healthy workplace causal model consisted of 8 latent variables and 32 observable variables. Figure 1 shows the model validation of causal relationship between healthy workplace (HWP)

and the 7 main dependent variables: Intrinsic Reward (INT_REWD), Job Satisfaction (JOB_SAT), Commitment (COMMIT), Work Moral (WORKMOR), Communication/Social Support (COM_SS), Individual Autonomy (IND_AUTO) and Extrinsic Reward (EXT_REWD). From validation, it was found that the model was fitted well to the empirical data ($\chi^2 = 385.405$, $df = 343$, $RMSEA = .020$, $RMR = .042$, $GFI = .925$). Healthy workplace variance could explain the variation in COM_SS (82.7%), INT_REWD (69.7%), COMMIT (66.6%) EXT_REWD (56.3%), IND_AUTO (47.8%) and JOB_SAT (38.8%) respectively whereas its effect was very trivial to WORKMOR.

FIGURE 1 consequences of healthy workplace causal model which fitted to empirical data



When considering to magnitude of the effect size, healthy workplace affected all dependent variables ($p < .01$) except work moral. Table 1 presents the effect size of healthy workplace to its consequences. Healthy workplace perfectly affected COM_SS (.948) and INT_REWD (.940). Healthy workplace lends a very high effect to EXT_REWD (.845), IND_AUTO (.778), and JOB_SAT (.702) while exerts a high magnitude to COMMIT (.581). It is also found that

JOB_SAT acted as a mediator with a moderate effect to healthy workplace and hotel staff's commitment.

TABLE 1 Parameters estimation and statistics in consequences of healthy workplace model

Maximum Likelihood Estimation			
parameters	estimation	S.E.	T-value
Matrix GA (Effect Size)			
HWP->INT_REWD	.940	.116	8.118**
HWP->JOB_SAT	.702	.096	7.323**
HWP->COMMIT	.581	.102	5.682**
HWP->WORKMOR	.070	.065	1.069
HWP->COM_SS	.948	.127	7.465**
HWP->IND_AUTO	.778	.118	6.590**
HWP->EXT_REWD	.845	.098	8.582**
Matrix BE (Effect Size)			
JOB_SAT->COMMIT	.388	.079	4.927**
Goodness of fit of model to empirical data: $\chi^2=385.405$, df = 343, RMSEA = .020, RMR = .042, GFI = .925, AGFI = .885			
R ² (construct reliability): INT_REWD (.697), JOB_SAT (.388), COMMIT (.666), WORKMOR (.004), COM_SS (.827), IND_AUTO (.478), EXT_REWD (.563)			

Note: *p < .05, ** p < .01

DISCUSSION AND CONCLUSION

Overall, the results showed significant relationships between hotel staff's perception of healthy workplace and its consequences, including intrinsic rewards, job satisfaction, employee commitment, individual autonomy, communication/social support, and extrinsic rewards. The findings that are related to the effect of healthy workplace in hotel industry are discussed below.

The results revealed that the effect of the healthy work environments in the hotels can dramatically improve communication/social support, autonomy, employee satisfaction, and commitment. The results are in accordance with the previous healthiness in workplace research [3] [4] where such a modern managerial process and tool as healthy workplace can enable social support, autonomy, satisfaction and commitment, which consequentially lead to better work performance. In this regard, a healthy workplace which may be considered as an inner CSR should not be treated as a cost to an operation. Thus, executive staff in the hotels should put an emphasis on the development of a human capacity, especially through the concept of healthy workplace.

In addition, it has been generally known that when one enters into a workforce, he spends one-third of live in a workplace. In a meanwhile, a workforce has a great impact on an individual life and it should reward that person in a constructive way [6]. The results of this study are in line with this notion when

an input of healthy workplace programs can greatly result in intrinsic reward and extrinsic reward. In this sense, when the hotels provide ways of business practices which are inspired and shaped by basic values that people care about, their staff will perceive that they receive a considerable concern as an exchange for their great effort in providing work and services. This result can perhaps help fulfill a sense of pride in oneself and finally turn into productivity of work.

Interestingly, the results revealed that job satisfaction is a mediator of healthy workplace and hotel staff's commitment. According to Darwish [7], job satisfaction can increase the relationship between role stressors and organizational commitment. That is role stressors negatively influence job satisfaction and job satisfaction mediates the influence of role stressors on organizational commitment. In contrast, when a healthy workplace becomes a policy to improve the quality of work and life, there is a high potential that job satisfaction will exist and indirectly enhance commitment among hotel staff. However, a significant relationship was not found between healthy workplace and work moral. This can be implied that healthy workplace program is not a determinant of work moral. Therefore, to develop a moral in workplace, the hotels should design special programs and activities to nurture the feeling of what is good and what is bad.

REFERENCES

- [1] Burton, J. (2010). WHO Healthy Workplace Framework and Model: Background and Supporting Literature and Practices. Geneva, Switzerland: World Health Organization.
- [2] Lowe, G. S., Harry, S. G., & Shannon, H.S. (2003). Correlates of employees' perception of a healthy work environment. American Journal of Health promotion, 17, 39 -399
- [3] Lowe, G. S. (2006). Creating Healthy Health Care Workplace in British Columbia: Evidence for Action. British Columbia, CA: Provincial health Services Authority.
- [4] Hodgins, M., Battel-Kirk, B., & Asgeirsdottir, A.G. (2010). Building capacity in workplace health promotion: The case of the health together e-learning project. Global Health Promotion, 17, 60-68.
- [5] Chiang Rai Information System. (2010). Travel Information. Retrieved Nov 2, 2010, from www.chiangrai.net/dashboard19/
- [6] Schuyler, K.G. (2004). The possibility of healthy organizations: Toward a new framework for organizational theory and practice. Journal of Applied Sociology/Sociological Practice, 21, 57-79.
- [7] Darwish A. Y. (2002). Job satisfaction as a mediator of the relationship between role stressors and organizational commitment: A study from an Arabic cultural perspective. Journal of Managerial Psychology, 17, 250 – 266.

A Relative Importance of Import Decision Variables: A Comparative Study of China, Korea and Japan

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ABSTRACT

This paper reports the relative importance of import decision variables as rated by three Asian country managers: China, Korean and Japan. This paper analyses three country import managers' purchasing behavior, compare and present their similarities and differences. All three countries consider the quality of the product, the price and the timely delivery variables to be the most important when making import decisions. Korea and Japan also regard the long-term supply dependability important while China regards the government's trade regulations more important than their counter parts do.

IMPORTANCE OF IMPORT DECISIONS

The decline of the U.S. dominance of the world market and its chronic experience of trade deficits since the early 80s has drawn much attention to the need for a greater knowledge of the export process and its management. As a result, export has become important issue for international marketers and it has been the focus of many studies in the literature. Equally important, however, is an understanding of the import side of the trade equation. In international marketing equation, marketing should be a tool available to both exporters (sellers) and importers (buyers) in theory as well as in practice. Therefore, international marketing should include the study of the importing process and its decision variables (Ghymn 1983; Ghymn, Cho and Kuo 2001). In the past, however, international marketing issues and strategies were treated primarily as a tool that deals with exporting (Kotler and Levy 1973) and the importing issues have been largely neglected in the literature (Liang, et al, 2003).

This paper deals with the import decision variables used by the import managers. A relative importance of import decision variables is measured in three Asian countries, China, Korea and Japan. Specific research objectives includes:

- 1.To determine what import decision variables considered most important when making import decision.
- 2.To compare the three country managers with regard to their import purchasing decision behavior.
- 3.To provide the U.S. exporters with strategic information about import purchasing decision behavior differences between the countries studied for better export strategies.

TALES OF THREE COUNTRIES

China

China is the world's second largest economy after the United States. It is the world's fastest-growing major economy, with average growth rates of 10% for the past 30 years. After more than twenty years of economic reform, China has become one of the most important destinations for cross border direct investment. China is also the largest exporter and second largest importer of goods in the world. China became the world's top manufacturer in 2011, surpassing the United States. For 2010, inbound foreign direct investment into China surpassed \$100 billion for the first time, and investment overseas by Chinese companies in non-financial sectors totaled \$59 billion (Invest in China, 2011,USITC Data Web, 2011)

Korea

Korea is the world's 12th largest economy in the world and the 7th largest U.S. trading partner. Total trade between Korea and the United States surpassed \$82 billion in 2008. U.S. exports this past year were \$34.9 billion. Korea's resiliency is major factor to consider during these times of economic uncertainty. In 1997, Korea faced a financial crisis only to emerge as one of the strongest economies in the world. The U.S. and Korea concluded negotiation in 2010 on a free trade agreement (FTA) to lower tariff rates on 95% of all consumer and industrial products, improve transparency and intellectual property rights, as well as address standards and regulations. The U.S. international Trade Commission projects upwards of \$10 billion annually in additional U.S. exports resulting from the FTA. U.S.-Korea trade is highly diversified, reflecting a broad spectrum of products and services that satisfy sophisticated consumer needs and state of the art industrial demands..(Doing Business in Korea, Country Commercial Guide, 2009)

Japan

Japan is the United States' fourth largest export market, after Canada, Mexico and China, and the second largest foreign investor in the United States, with more than \$200 billion invested, second only to the United Kingdom. Japan is also the world's third largest economy, with a GDP of roughly \$5 trillion in 2008. In 2008, according to U.S. Census Bureau data, the United States had a year- to-date trade deficit with Japan of \$72.7 billion, a decrease of 12.2 percent from 2007. U.S. exports to Japan totaled \$66.6 billion, while U.S. imports from Japan totaled \$139.2 billion. The top ten exporters to Japan in 2008 were China, the United States, Saudi Arabia, Australia, United Arab

Emirates, Indonesia, South Korea, Malaysia, Taiwan, and Germany. The top ten importers from Japan were the United States, China, South Korea, Taiwan, Hong Kong, Thailand, Singapore, Germany, the Netherlands, and Russia. (Doing Business in Japan, Country Commercial Guide, 2009)

RESEARCH METHODOLOGY

The import managers' purchasing behavior is an ongoing research and the data employed in this article are from the earlier studies of individual countries reported elsewhere. This paper reports the similarities and differences of the three countries examined. A structured mail questionnaire was the main device for collecting data. The study was concerned with import decision information based on seventeen variables (eight product-related variables, seven service-related variables, and two government-related trade law and regulation variables). The first two sets, the product- and service-oriented variables, were the ones identified as important by a group of managers (panel) who were interviewed before the survey instrument was developed, and the government variables were added by the authors after recognizing their importance when performing a similar study elsewhere. These variables are listed in Table 1.:

FINDINGS: Overall Relative Importance of Variables

The total sample size for this study are 238, including 65 firms in China, 121 in Korea and 52 in Japan. The study participants were large distributor, large retailers and small and medium size import agents. A five-point Likert scale (where 5 indicates the most important and 1 indicates the least important) was used to measure the relative importance of the decision variables used by the import managers

As shown, the mean scores on the five-point scale for the entire study samples (China, Korea and Japan combined) where 5 was the most important and 1 was the least important when making import decisions.

As shown in Table 1, the product quality with mean value of 4.78, the price with 4.51, and the timely delivery with 4.46 and the product safety with 4.08 followed by the long-term supply dependability with 4.05 and the importing government's import regulations (4.00) were the top six most important variables as rated by the three countries managers compared. The least important variable was the product uniqueness (in terms of culture and ethnicity) followed by the promotion help from the exporters. The other ten variables, from the length of association with suppliers to the brand name reputations were rated somewhat important with scores ranging between 3.41 and 3.88. It is interesting to note that importers from all three country managers seemed to agree with the most important variables, first, the product quality, second, the price variable and the third, the timely delivery variable and with the least important variable, the product uniqueness.

Table 2, a mean value comparison between the three countries, reveals several interesting differences, however. Both the Korean and Japanese managers rated the long term supply dependability as the fourth most important with mean value of 4.39 and 4.29, respectively, while the Chinese managers scored it somewhat low with 3.56. Also, the Korean managers rated the ordering/shipping procedures and the length of association with suppliers highly (4.17) while their counter part Chinese and the Japanese managers regard them less important with scores of 3.22 and 2.98, respectively. Another significant difference is that the Chinese managers regard the country's import laws and regulations very important (4.19) but the Japanese managers consider it less important with 3.76.

GROUP COMPARISON: Product-, Service- and Government-related Variables

Because there are more frequent changes and a higher degree of uncertainty involved in the service and government variables(e.g. frequent changes in import regulations, timely delivery unreliability, unexpected changes in transportation cost, etc.), the seventeen import variables were classified into three sub-groups: the "product-related" variables, the "service-related" variables, and the government-related variables as shown in Table 3. It was expected that the constantly changing government-related variables would receive higher ratings than the other two group variables (Service- and Product-related).

On the contrary, the three country group comparison indicates that managers seem to pay more attention to the product-related than the service-oriented variables. However, it was detected that the Chinese managers seemed to regard that the government-related variables were more important than the other two variable sets while the Korean and the Japanese managers rated this variable lower. The study authors expected, though, that since all study countries have gone through new trade liberalization and tariff reduction policies since the Asian financial crises, the government-related variables would be regarded very highly in these Asian countries observed.

CONCLUSION

This paper examined the importers' decisional behavior of three countries, China, Korea and Japan. Emphasis was placed on comparing the relative importance of import decision variables used by import managers. Undoubtedly, import managers and their decision behavior differ in composition not only from country to country and from company to company, but also among products they import. Therefore, making their behavior generalization is unwarranted until further studies and more empirical researches are made. Several major implications, however, can be highlighted.

With regard to the Chinese case, the managers surveyed considered the product quality, the price, the timely

delivery and the government import laws and regulations variables the most important factors in import purchase decisions. A closer examinations of the Chinese group differences shows that larger size companies (in terms of export sales volume) that purchase primarily from North America, however, tend to regard their long-term dependability with suppliers as very important. The least important decision factor was cultural or ethnic uniqueness of a product. The most difficult problem areas they reported were the custom processes and the port regulations.

For the Korean import managers, they consider the product quality, the price, the timely delivery, the dependability of the long term supply and the product safety variables to be the most important factors when making import decisions. As companies become larger, however, they tend to regard the timely delivery, the brand reputation and the Korean government's import regulations and laws to be very important. The least important variable for the Korean is the product uniqueness (ethnic/cultural), same as the Chinese.

For the Japanese case, the product quality, the timely delivery, the price and the long term dependability of suppliers, appeared to be the major concerns for the Japanese importers. Once again, the least important variable found to be the product uniqueness as is the case with both the Chinese and the Korean managers. The brand name reputation was regarded more important for managers who made frequent trips for import purchases than managers with less trips made.

Overall, it is quite interesting to find that all three country managers seemed to agree that the product quality, the price and the timely delivery are very important when making import purchasing decisions.

Table 1
Import Decision Variables Rated by 3 Countries
Rank, Mean Scores and Standard Deviation
(n = 238)

Variable names in rank order	mean (std)
1 Product quality	4.78 (.40)
2 Price	4.51 (.72)
3 Timely delivery	4.46(.75)
4Product safety	4.08(1.03)
5Dependability for long-term supply	4.05(1.04)
6Gov't laws in importing country	4.00(.97)
7Brand name reputation	3.88(1.05)
8Product style/features	3.77 (.93)
9Product demand at home	3.76 (1.22)
10Gov'laws of importing country	3.62 (.97)
11Ordering/shipping procedure	3.63 (.85)

report. It's full report will be presented at the conference. These will be provided upon request.

12Payment method	3.60 (.93)
13Transportation cost	3.55 (.94)
14Packaging	3.52 (.87)
15Length of association with suppliers	3.41 (.92)
16Product uniqueness (ethnic, cultural)	2.84 (1.18)
17Promotion help from suppliers	2.74 (1.12)

Table 3
Product vs. Service-Oriented Variables*
3 country comparison

Group Mean and (standard deviation)				
A.Product-Oriented Variables:				
Brand name reputation				
Product Style/Feature				
Packaging				
Product quality				
Price				
Marketability (Domestic demand)				
Product uniqueness				
Product safety				
China (n=65)	Korea (n=121)	Japan (n=52)		
3.80 (.88)	4.02 (1.01)	3.83 (.88)		
B.Service-Oriented Variables:				
Dependability for long-term supply				
Payment method				
Length of Association				
Transportation cost				
Ordering/shipping procedures				
Promotion help from suppliers				
Timely delivery				
China (n=65)	Korea (n=121)	Japan (n=52)		
3.42 (.70)	3.88 (1.01)	3.54 (1.02)		
C. Laws/regulation Variables:*				
Home government laws				
Host government laws				
China (n=65)	Korea (n=121)	Japan (n=52)		
4.02 (.84)	3.81 (.89)	3.62 (1.05)		

*: Statistically significant at $\alpha = .10$.

Due to the page limitation, Table 2 and the references are not included in this Proceedings

The Relationship Marketing For Poor Customer

(Study Case on Indonesian Companies)

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ABSTRACT

Base on the fact that most Indonesian customer is still living in poor and hasn't been touch by the company and consider as a potential customer, even though the number of this level of customer is quite big according to Indonesian government statistic office but has low purchase power and its spread trough region. Poor customer only spends \$1-\$2 a day. In this paper, we discuss findings from the field survey that we did during our research and how Indonesian companies such as ESIA, CNI and BRI create relationship with poor customer. What support and barrier that those companies and poor customer have during marketing activity, what product and service that can create satisfaction and loyalty, and how strong those companies commitment and thrust to poor customer. At the end what is the impact of this strategy for those companies in the future.

KEYWORD: *The Relationship Marketing, Satisfaction, Loyalty, Commitment, Thrust, Poor Customer.*

BACKGROUND

Many companies still not consider the poor customer as their main target customer, even though the number of this level of customer is quite big in Indonesia. According to Indonesian Government Statistic Office (BPS) its spread trough region, from province Aceh to province Papua. This is partly because the government's definition of poverty is 152,847 rupiah (\$16.80) a month. This measure is well below the more widely used benchmark of \$1 a day by United Nation. Using the \$1 or \$2 a day measure, it is estimated that more than 30 million Indonesians are living in poverty (www.bps.go.id). Indonesian as one of the emerging countries has become part of the foundation of world economic because of his consistently with minimum 5% GDP growth during the financial crisis that occurred in United State and Western Europe in the year 2008-2009 along side with Brazil, Russia, China and India (Andersen and Billou,

2007), (Pitta, Guesalaga and Marshall, 2008). Even though those numbers is quite promising, but there are still people that living in poverty line in Indonesia.

ESIA (Mobile telephone) (www.esia.co.id), BRI (Bank) (www.bri.co.id) and CNI (Multilevel company) (www.cni.co.id) are one of the Indonesian company that focus on there product and service to poor customer. They believe that by divided there segment toward poor customer from the beginning it will be advantage, because not much company in Indonesia that focus on this segment. Mostly they are focus on high level customer because they think that it will return their investment sooner. To maintain relationship marketing the company need to communicate with poor customer to show their commitment and thrust to create mutual relationship. By giving them the best and high quality product and service that will make the poor customer satisfying and at the end the poor customer will loyal to company's product and service. The reason the relationship marketing is important because the cost of retaining the new customer is very expensive. Therefore the company should have right relationship marketing strategy. For instant the case of BOP in Philipines (Nielsen and Samia, 2008).

SHORT LITERATURE REVIEW

Relationship marketing has widely using to create consumer loyalty (Priluck, 2003). Resulting positive outcomes for customer and marketers. Researcher has suggested that developing and maintaining relationship contribute on company success. Marketers have using this strategy to attracting and retaining the customer. Relationship marketing give beneficial to company and customer in long term. The company may benefits more from customer satisfaction, stronger profitability, better communication, and more effective company planning (Evans and Laskin, 1994). Consumer prefer relationship because the buying and information process are simple, risk is reduce and psychological comfort is enhance. For these reason customer voluntary limit their choice by continuing to patronize the same marketer repeatedly.

OBJECTIVES

The above explanation, lead to the following formulation of research objectives:

1. To understand the product and service that can make the poor customer satisfy and loyal to the company.
2. How strong the company commitment and thrust to poor customers.
3. To identify the support and barriers of relationship marketing toward poor customer.
4. The impact of relationship marketing strategic toward poor customer for Indonesia companies in the future.

METHODOLOGY

The objective of this research are to understand the role of relationship marketing toward poor customer. We use literature study to elaborate the topics and to finding some practical data from the company we conduct interview and we distribute questioner for poor customer.

CONCLUSION

Most of the poor customer that we identify during our field research are satisfy with the product and service that deliver by those companies, because they think the company give good and high quality product and service. But they are not loyal to the product and service from those companies, why? We learn from insight information that we have during our field research that most of the poor customer is price sensitive. So if they found similar product or service from those companies they might switch to the other companies. So those companies need to educated the poor customer on benefits that they have if the poor customer using their product and service. The poor customer, realize that company commitment to them are strong, because those companies have maintaining good relationship with them by keep communication with them and give good and high quality product and service. And those companies thrust level also good. Because the poor customer believes the company gives good and high quality of product and service, they believe in company integration and reputation.

We examined from those companies the support and the barrier of relationship marketing toward poor customer. The support is, the number of the company that focuses on this segment are low, so there is only small number of competitor. And the number of this segment is big in Indonesia, so it means there are always opportunity in this segment in the future. And the barrier for this segment is the poor customer is high switching of product and service because they are low educated so need more time to give them understanding about the benefit of the product and service. At the end, those companies realize that this relationship marketing strategy toward poor customer

has potential in the future even though its take long time to have the profit back.

REFERENCES

Anderson, Jamie and Niels, Billou. (2007): *Serving The World's Poor: Innovation at the Base of the Economic Pyramid*, Journal of Business Strategy, 28 (2), p. 14-21.

Barki, Edgard and Parente, Juracy. (2006): *Consumer Behavior of the Base of the Pyramid Market in Brazil*, Greener Management International, 56, p. 11-23.

Evans, J.R. and Laskin, R.L. (1994): *The Relationship Marketing Process: a conceptualization and application*, Industrial Marketing Management, Vol 23, pp.439-52.

Ireland, John. (2008): *Lessons for Successful BOP Marketing from Caracas 'Slums*, Journal of Consumer Marketing, 25 (7), p. 430-438.

Nielsen, Christine and Samia, M.P. (2008): *Understanding Key Factors in Social Enterprise Development of the BOP: A System Approach Applied to Case Studies in the Philippines*, Journal of Consumer Marketing, 25 (7), p. 446-454.

Bigelow, Jay.(2009): *Behavior and The Bottom Line*, Pharmaceutical Executive, 29 (5), p. 126-128.

Pitta, A.D.; Guesalaga, Rodrigo; and Marshall, Pablo. (2008): *The Quest For the Fortune at the Bottom of the Pyramid: Potential and Challenges*, Journal of Consumer Marketing, 25 (7), p. 393-401.

Priluck, Randi. (2003): *Relationship Marketing Can Mitigate Product and Service Failures*, The Journal of Services Marketing, 17 (1), p. 37-52.

Ward, Tony and Dagger, S.T. (2007): *The Complexity of Relationship Marketing for Service Customers*, Journal of Services Marketing, 21 (4), p. 281-290.

Wood, R.P; Pitta, A.D.; Franzak, F.J. (2008): *Successful Marketing by Multinational Firms to the Bottom of the Pyramid: Connecting Share of Heart, Global "Umbrella Brands", and Responsible Marketing*, Journal of Consumer Marketing, 25 (7), p. 419-429.

www.bps.go.id

www.bri.co.id

www.cni.co.id

www.esia.co.id

Factors Affecting the Purchasing Decision of One Tambon One Product in Pathum Thani Province, Thailand

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Abstract

This research is a quantitative research by multi-stage sampling method. The research results showed most consumers buy "One Tambon One Product (OTOP)" as a souvenir gift for different cultural & personal occasions. The frequency of purchase is 3 to 4 times per year and the consumers in Pathum Thani, get news and information from OTOP exhibitions. The next factors that affect product purchase decision were the promotion of market, pricing, and channel of distribution respectively. The promotion, the pricing and the product distribution of channels are related factors to the consumers' purchasing decision. The consumers with different ages and different per-month average income will have different behaviors on purchasing statistically significant at 0.05.

1. Introduction

The economic crisis during the year 1997 had a impact on the Thailand economy's for several consecutive years as a result, people broke into the problem of unemployment because of many factories closedown. Any economic crisis and its effect on export sector, which is the key in bringing foreign currency into the country & it has overall impact on society. The problem mentioned above can be solved with the help of Thai government; it has a policy to strengthen community, and society on basis of national security, so as to reform the structure of the economy for balance and sustainability. All of the above policy has been defined in The Tenth National Economic and

Social Development Plan. The study will focus on factors that contribute to the strength of each pillar of civil society, operating mechanisms, management and its networking, and systematic data collection of the society sector for use as a local tool for development & making strong communities.

The Tenth plan is the origin of "Strong Community Strategy" its main purpose is to solve the problems of the country. The government has assigned priority to improve the quality of life and work of many local people with the same policy. The one part of this policy is "One Tambon One Product (OTOP)" for each community to use local knowledge to develop products. Government assistance is provided in terms of upgrading to modern knowledge and management, including capital to link the community to market the products throughout the country and around the world with stores, exhibition, network and Internet. OTOP's concept to support local development process to create strong community, self-reliant & people have the opportunity to create revenue, by using existing resources in the development of local goods and services as products, in which use raw materials from local resources and expertise, which can be considered as a community, the economy and stronger marketing mix including product, price, channel of distribution and promotion.

Principles of the OTOP is the creation of prosperity to the community can leverage as being of the community better. Management of existing resources into a local high quality products with unique features

that correspond to their own local culture can be sold in both domestic and international markets with wisdom local to international, self-reliance and creative thinking, to create human resources. Products does not imply the product alone but the cognitive processes including the services of natural resources and the environment preservation of Thai traditional knowledge, travel, art, culture, traditions, and to balance local knowledge sharing learning for into a product quality point of sale features widely known throughout the country and around the world.

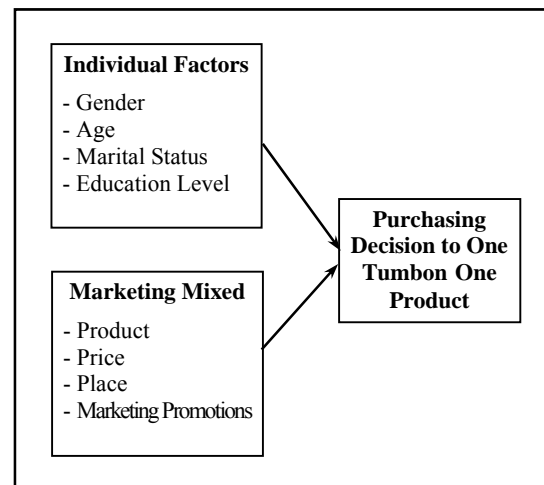
Pathum Thani Province has implemented the OTOP for an income channel of distribution, to create a unique product in the community each area & refresh local knowledge as well as to reduce duplication of products in the neighborhood, but the project success depends on consumers as there are very important in today's world. Therefore the factors affecting the purchase decision is important to the marketing mix includes product, price, channels of distribution and promotion. Marketing support is the key to the OTOP's project to move towards success.

2. Objectives

1. The research is to study the factors affecting the decision & its behavior to purchase products from the OTOP of Pathum Thani province
2. The research is study to the relationship of personal factors on the decision to purchase products from the OTOP of Pathum Thani province

3. Conceptual Framework

As concepts, theories and literature review. Researchers have defined the following framework in the research.



4. Methodology

Data analysis was used with descriptive statistics, which correlated with a one-way analysis of variance (ANOVA) and analysis of different groups was compared with Scheffe's method. The population targeted in the study is customers who come to visit and purchase OTOP products in Pathum Thani. The method is a multi - stage random sampling by area wise in Pathum Thani. Total numbers of 400 samples were taken. The data were collected by questionnaire & tested validity and reliability with a correlation coefficient of standard deviation cronbach's alpha in April 2010 the relationships using statistic application software was used during this research.

5. Results

The results showed that most respondents were female, aged 30 years to 40 years old, married, & most of them have bachelor degree with average monthly income between 10,001 to 20,000 Baht. With the study, consumers buying behavior OTOP product, found that respondents most common cases to buy food purchases as gifts on special occasions. There frequency is of 3-4 times per year by buying most of products in the exhibition.

The study of marketing mix factors affecting the purchasing decision, OTOP revealed the products affect the decision to purchase OTOP highest after that is a factor in the promotion of market pricing and channels of distribution respectively. The study found that the products with unique local characteristics affect the decision to purchase the highest quality standard in order, followed by sections on design and product innovation influence decisions at the most. The study found that the price of a cheap price appropriate to the product affect the decision to purchase the highest and discounts for regular customers as a result of the next buying decision. The study of channels of distribution were distributed to retail outlets of government agencies have decided to buy after that is the best selling locally produced within the group. The results of the marketing campaign was a sales solicitation to buy influence decision to buy after that is the most reducing distributed free trade continues.

6. Recommendations

A study of different factors affecting purchase decision OTOP Pathum Thani, which can provide ideas and suggestions to the operators and distributors are as follows.

1. The production and distribution of OTOP food products. Normally, customers will buy food products as a gift. Therefore, OTOP food products should be stored for a certain period. The OTOP entrepreneurs should distribute their products through OTOP fairs because the customers pay attention to the fairs the most.
2. The OTOP entrepreneurs in Pathum Thani should design unique and distinguishing packaging. Also, they should produce various products of the high

quality. For the pricing, the entrepreneurs should set the prices appropriate to the products. It means that prices vary depending on the products' quality. Discounts can be given in some occasions. Moreover, different channels of distribution should be provided such as shops, public agencies, and distributors. For the marketing mix, the entrepreneurs should recommend useful techniques for selling, persuading, and treating customers with a good manner. Also, sales promotion and public relations should be organized thoroughly.

References

- [1] Etzel, walker & Staton. Integrated Marketing Communication. 2nd ed., McGraw-Hill Book Co. New York. Zikmund, 2001.
- [2] Kotler, Philip. Marketing Management. 10th ed. New Jersey : Prentice – Hall, Inc, 2000.
- [3] Lyman Ott R. and Micheal T. An Introduction To Statistical Methods and Data Analysis. Carifornia : Duxbury Press, 2000
- [4] Schiffman, Leon G. and Kanuk, Leslie Lazer. Consumer Behavior. 7th ed. New Jersey : Prantice-Hall, Inc, 2000.
- [5] Tanomsup, Saralthorn, 2007. The 10th National Economic and Social Development Plan's Feedbacks. <http://www.itd.or.th/th/node/308>.
- [6] Community Development Department. (n.d.). History of One Tambon One Product (OTOP). Retrieved March 18, 2011, from <http://www.otop5star.com/about.php>

A Behavioral Approach to Positive Global Leadership

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Abstract

The emergence of globalization has spurred a search for new approaches to organizational leadership that can meet the challenge of being effective across cultures. The massive GLOBE leadership study (House et al., 2004) and others have initiated theory-building and research to begin answering the important questions. We propose that behavioral management or organizational behavior modification (O.B. Mod.) based on positive reinforcement (see Luthans & Kreitner, 1975, 1985) may provide another, as yet unrecognized, approach to effective global leadership. O.B. Mod. has been clearly demonstrated over the years to have a significant impact on employee performance outcomes in both U.S. and foreign (e.g., Russia and Korea) organizations (see meta-analysis reviews; Stajkovic & Luthans, 1998, 2003). More recently, positive organizational behavior (POB) and psychological capital (PsyCap) (see Luthans, Youssef & Avolio, 2007) have also been shown to have a significant impact on U.S., Chinese and Egyptian employee attitudes, behaviors, and performance (see Luthans, Avolio, Avey & Norman, 2007 and a recent meta-analysis, Avey, Reichard, Luthans & Mhatre, in press). Now with globalization, the time has come to extend these behavioral and positivity paradigms into a new behavioral approach to Positive Global Leadership. Using Daniels and Daniels (2007) book on behavioral leadership as a frame of reference and point of departure, and drawing from Luthans' widely recognized O.B. Mod. and

POB/PsyCap, this paper outlines the assumptions, definitions, and specific guidelines for a behavioral approach to Positive Global Leadership.

A Comprehensive Employee Engagement Model for Organisations

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ABSTRACT

This paper examined the results of a study conducted by (10) where an alternative model to management is proposed. Management effectiveness is a key variable in organisational performance relating to strategic initiatives such as environmental and social corporate responsibility initiatives. The authors conducted a thematic analysis of the results of the mentioned study and identified various levels of engagement applicable to organisations. A high level literature review indicated most research refer to individual engagement, with little research on management engagement. As a result of the thematic analysis and literature review the authors propose a Comprehensive Organisational Engagement model which includes the various levels of engagement critical for complete stakeholder engagement. Unless organisations succeed in improving the level of management effectiveness and all the associated engagement factors, important strategic initiatives will not be achieved.

INTRODUCTION

Over the last 2 decades organisations were required to spend more time and resources on establishing social responsibility. More organisations realised they should be giving something back to the communities in which they sell their products or services. Businesses are moving into the realm of being more responsible corporate citizens and although many corporations are still taking advantage of their markets, communities are expecting organisations to be more responsible socially and environmentally. Customers' buying decisions are made in terms of companies' philosophy and track record on how they engage with the environment.

In a global workforce study conducted by (15) they found one of the top five engagement drivers across 19 countries is the organisations reputation for social responsibility.

(8) reported in *Going Green: Sustainable growth strategies*, (8) and provided Technology executives with views on sustainable environmental strategies that could support their growth strategies. (8) reported: "Consumers, governments, regulators and, increasingly, businesses are seeing green. A growing wave of global environmentalism is forcing technology companies to produce greener products

through greener processes." (8) made four key observations:

1. Green demand is growing
2. Green requires collaboration
3. Taking proactive steps towards sustainability
4. Hardware and software opportunities

Companies need to incorporate environmental strategies into their business strategies. The strategic initiatives will require collaboration across industries to create innovative ways of ensuring sustainable business models going into the future.

However, there are obstacles to overcome in this regard. Management effectiveness needs to be improved in order to achieve organisational strategies and more specifically environmental objectives. (1) said in an interview: "Management is the single largest constraint on business performance." In a Hay study (7) it was found that ineffective middle managers in the United Kingdom are costing the economy a staggering 220 billion pounds per annum. The cost of environmental harm has not been included in this cost. The current management models and practices need to be reviewed because managers do not seem to be able to add significant value to their organisations.

In a recent study, (9) proposed an alternative model to management as a contribution to the management 2.0 initiative. The author conducted a systematic literature review to identify what the possible value chain components of a management value chain are. The study identified a total of 57 management practices across the management value chain and subsequently each management practice was evaluated for its potential impact on employee engagement.

The current paper is an extension and continuation of the study by (10). The authors realised that management effectiveness within the proposed management value chain can become cognitively challenging because of the number of management practices required from managers. The authors recognised the complexity of employee engagement and suggest it might be a multi-dimensional variable. However, most of the research literature refers to employee engagement as individual engagement with fewer articles study the other possible levels that may have an impact on engagement. The authors argue that engagement could in fact be represented on 5 separate levels namely: management, individual, team, organisational and stakeholder (including community

and customer) engagement. The five hierarchical levels of engagement could be inter-dependent, e.g. management engagement influences the level of individual engagement. Without organisational and management engagement it will be difficult to have team, individual or community engagement.

The aim of this study therefore is to propose a comprehensive employee engagement model by considering empirical research literature on managerial, individual, team, organisation and community levels.

RESEARCH DESIGN

Research approach

The study was conducted in two phases. In the first phase, the themes identified by the (9) study proposed a model with a range of 57 management practices linked to engagement. The model was analysed from a different perspective and general themes were identified to perform a higher level abstraction of themes on the model. In the second phase the authors conducted a high level literature review to determine which engagement variables potentially exist on the management, individual, team, organisation and community level. The findings will be represented in a conceptual framework within a comprehensive engagement model for organisations.

Research method

Location of the data. EBSCO Host, a multi-disciplinary and business database was utilised to identify relevant peer reviewed articles. The authors focused the search specifically on two databases. The first database, *The Academic Search Complete* described as the world's most valuable and comprehensive scholarly, multi-disciplinary full-text database, with more than 8,500 full-text periodicals, including more than 7,300 peer-reviewed journals. This database offers indexing and abstracts for more than 12,500 journals and a total of more than 13,200 publications including monographs, reports, conference proceedings, etc.

The *Business Source Complete*, described as the world's definitive scholarly business database, providing the leading collection of bibliographic and full text content. As part of the comprehensive coverage offered by this database, indexing and abstracts for the most important scholarly business journals back as far as 1886 are included.

Data gathering methods. Data was gathered using the databases on the University of Johannesburg online journal library. In the (9) study extensive integrated literature study was conducted on employee engagement. The results of this study were used as basis for this paper, in addition the authors wanted to determine how much research has been conducted on the various levels of engagement. The key words used to search the relevant articles were: *management engagement, team engagement, organisation engagement, community engagement and employee engagement.*

The authors discovered that most of the research conducted on employee engagement focused on *individual* engagement. Very little research has been conducted on team or group level and only one article on EBSCO Host was found which was relevant to organisational engagement (13).

Research procedure. An integrated literature was conducted as part of the initial study. For the purpose of this paper the proposed management value chain was reviewed and possible engagement themes were identified. High level literature review was conducted to confirm whether the respective themes could in fact be contextualised within the specific "level" of engagement. As a result of this literature review the authors developed a conceptual framework for further research to investigate this phenomenon.

Data analysis. The databases were accessed on 2011/01/29 and the relevant studies were selected after each search on each key word mentioned above. The number of hits on the EBSCO Host database relating to the levels of engagement were found as indicated below. The relevant articles were reviewed and used for the purpose of this paper.

SUMMARY OF FINDINGS

The findings of this paper are reported in terms of the following research questions:

- What are other possible levels of engagement in organisations which could potentially have an impact on overall organisation performance?
- Will more levels of engagement increase the complexity for management teams impacting their effectiveness in implementation of organisational and environmental strategies?

Phase 1 Study: Engaging management practices in a generic management value chain

The purpose of the first study (10) was to establish which management practices within the value chain components result in employee engagement. A large number of studies were found that provided evidence that particular management practices could be associated with respective management value chain components.

The author found that various management practices have a direct relationship with employee engagement while others seem to have an indirect or a suggested relationship with employee engagement.

Sufficient evidence was found that supported the existence of a relationship between employee engagement and organisational performance (3)(5)(11)(12)(17).

Within the context of this paper, business performance could be associated with strategic growth or other more specific objectives such as social or environmental plans and strategies.

Phase 2 Study: A different level of abstraction on the model outcomes

The Management Value Chain model may have serious implications for managers. The number of

activities in the model implies that managers have to apply a range of activities across the various management value chain components in order to be effective. The complexity and demands on managers to improve employee engagement becomes a challenge.

Identifying management practices that could have an impact on employee engagement (9) referred to the Job Resources and Demands model (JRD) of (2). The JRD model refers to participation, information, opportunity for growth, rewards and development which impact employee engagement. According to (6) six areas of work-life balance lead to burnout or engagement: workload, control, rewards, *community* and social support, perceived fairness and values. The authors realised the model needs to be simplified and decided to review the model from an engagement perspective.

In this review the authors realised there are different levels to employee engagement. (14) refers to Systems Theory which describes inter-dependence between people, organisation units, functions, organisation and the community. Generally engagement is described individual engagement but there seem to be sub organisational units which require different management input. Management engagement is probably the most important organisational unit to focus on. Managers are responsible for implementing strategies. Organisations without engaged management will not have engaged employees or teams. Organisation engagement might be a completely new concept, but it refers to factors that organisations should focus on to improve engagement.

Within the context of this paper community engagement is very important, research conducted by (4) suggested how important it is to engage communities. In 2003 the Prince of Wales encouraged business and non-governmental organisations to engage with communities in order to improve relations between businesses and community. This initiative suggested that businesses have a responsibility towards community. Very little research was conducted on the community level explaining the impact of external communities on the engagement levels of internal employees.

DISCUSSION

In this paper the purpose is to determine what engagement themes potentially exist on management, individual, team, organisational and community level which impacts the levels of employee engagement. This will impact the implementation of critical environmental and social strategies.

Engagement statistics indicate that employees are not engaged in their organisations. It has

implications for productivity and business performance such as revenue, production, cost reduction, new markets including corporate social responsibility and environmental strategies.

This paper suggests there are various internal and external stakeholders who need to be engaged to ensure successful execution of organisational strategy. If organisations succeed in engaging all stakeholders it will establish stakeholder satisfaction.

The authors propose a Comprehensive Engagement Model for Organisations. The importance of management engagement is highlighted because of this groups' responsibility to manage all stakeholders in and outside organisations. Managers are often disengaged and will not be able to engage their staff, teams and communities. Team engagement has different variables and it requires different input from a management team. Community engagement could potentially be a contributing factor to employee engagement. The literature refers to the relationship between employee engagement and customer satisfaction. (16) wrote "Engagement is part of our values and training curriculum. We want to make sure our employees, leaders, and customers are engaged." Most research highlights the positive impact that engagement has on customer satisfaction but the impact of irate customers on employees like call centre agents should also be considered.

Employee engagement is dependent on effective management engagement. Team, organisation and community engagement are dependent on individual engagement or *vice versa*.

CONCLUSION

The study provides an alternative view on employee engagement. Although it will add to the complexity of employee engagement, an empirically tested model might make it easier for managers to deal with engagement as construct. It might be an answer to the current low levels of engagement in organisations worldwide.

As discussed, the relationship between employee engagement and business performance on various levels has been empirically established. If an organisation can achieve *complete stakeholder engagement* (on different levels) it could potentially have a even bigger impact on business performance and organisations will therefore be much better equipped to achieve critical Socio-economic and environmental strategic objectives.

REFERENCES

The full list of references is available upon request.

The Quality of Work Life Affecting Organizational Workers Loyalty in the Feed Mill Industry of Thailand

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ABSTRACT

Recently, This research project involves studying the quality of work life affecting organizational worker loyalty in the feed mill industry of Thailand. The sample group comprised 393 workers from a total of 21,226 workers from 127 feed mill companies in Thailand. The procedures used in the study of this project included both close-ended questions and open-ended questions. The statistic techniques used to manipulate these samples include: Frequency, Percentage, Mean, Standard deviation, t-test, One-Way analysis of variance (ANOVA) and Analysis of different group by LSD Comparison method and Pearson product moment correlation.

Five goals have been setup to determine the quality of work life of Thai feed mill workers how it affects heir organization loyalty. These include: (a)The level of the quality of work life in 8 structure, (b)The level of organizational worker loyalty, (c)The correlation between personal characteristics and the quality of work life, (d)The correlation between personal characteristics and organizational worker loyalty, (e)The correlation between the quality of work life and organizational worker loyalty.

INTRODUCTION

The economic, social, and political current events in both national and global level which rapidly change, the causes that make organizations adapt and adjust their structure, policy, and administration in order to maintain the organization and continue its prosperity. The administration that brings prosperity and reaches their goals must contain at least 4 aspects; personnel, money, material, and management which is the most important thing.

In terms of administration, the executive must be able to access the demands of the personnel in the organization and blend those demands together with the organization's goal. One of the significant role of the executives to have a highly effective and successful operation is that the executives must have good motivation, be interested in quality of work life which means having good mastery, working condition, wage and welfare, also having an interesting job which has challenge and a reward.(Werther and Davis, 1993)

In the feed mill industry of Thailand there is a problem that workers in an operating level have resigned and there is a big circulation of workers which affects the productivity, production costs, delivery of goods, as well as the expense for training the coming workers in an operating level in order to make them as capable as the workers in an operating level who have quitted.

Therefore, from the importance of the quality of work life and the importance of the relationship of the organizational workers, it makes the researcher interested in studying the quality of work life whether it affects the relationship to the organization of the workers or not by studying the workers in an operating level in the feed mill industry of Thailand.

The quality of work life is a kind of working that makes a person happy from the condition they have while they are working, it is also cooperation between a person and work in order to let life and working blend harmoniously. The workers feel satisfied with work and live happily. (Herzberg, 1959) The satisfaction in work is a factor that helps the personnel work efficiently, and it can result in high achievement. On the other hand, a person who is not satisfied with work will have low achievement in working and low attendance. The quality of work life is based on a good condition of living, an element that contributes to work, and there is also a feeling of satisfaction and morale to work which result in efficiency. At the same time, if the organization fails to build the quality of work life to their workers, they will therefore have low organization loyalty. (Steers, 1977)

Organization loyalty is an overall feeling to a strong relationship of unity of members in joining the organization's activity, and there is an expression of strong belief in accepting the goal and value of the organization that has faith in the overall indicated goal (Porter, Steers, Mowday and Boulian, 1974) because organization loyalty is an impulsion for the workers to work better. As the workers starts to feel that they are a part of cooperative ownership and organization loyalty is a link between the demands of personnel to have consistency with the organization's goals, the workers will have commitment with work and view work as a way to gain benefits and achieve their goals so they intend to work hard. (Buchanan, 1974) The quality of work life is also the consistency between the expectation in work of workers themselves and the

effectiveness of the organization, that is, the well-being of work is a consequence of an increase of working experience that make workers satisfied with that work, and it gives good morale to the workers as well. (Huse and Cunning, 1985) Therefore, it can be said that the quality of work life is a philosophy to improve productivity from the preparation and allow the workers to have an opportunity to use their skills appropriately by designing a new work, if we design a work that has quality of work life, the consequence is the classification of authority to the workers in each position to make decisions by their authority. (Bovee, Thrill, Wood and Dovel, 1993:413) In brief, the quality of work life will affect the organization in 3 aspects; first, it helps increase the organization's productivity. Second, it helps increase the workers' morale as well as it is their motivation to work, and third, the quality of work life will also help improve the workers' potential. (Huse and Cummings. 1985:198-199)

The quality of work life can be measured from a criterion in 8 ways (Walton, 1973) which are adequate and fair compensation, safe and healthy environment, development of human capacities, Growth, Social integration, Constitutionalism, Total life space and Organizational pride

And the fundamental elements which are the factors that indicate Organizational Loyalty are divided in 3 groups (Steers, 1982) which are Personal Characteristics, Job Characteristics, and Work Experience.

Organization loyalty of the personnel is greatly important because the relationship is a thing that expresses or indicates love, pride, acceptance and adherence to the goal and the ideal of the organization which make the personnel willing to work for progress and benefits of the organization as well as they will have the desire to be members of the organization for good, that every organization definitely needs the personnel who wants to have a bond with the organization in order to make as many progresses as possible. For this reason, many organizations are trying to create a bond inside to every worker and to keep the competent workers as long as possible, meanwhile they are trying to discover a method to draw competent workers into the organization as many as they want by using many kinds of motivation to make their workers motivated enough to work with the organization and desire to maintain their membership with the organization for good. (Orn-uma Srisawang, 2001)

Moreover, Allen and Meyer (1993, pp. 49-61) added that organization loyalty is the steadiness of behavior. When workers have organization loyalty, they will express themselves as continuous behavior or consistency in their work. The continuity in work without changing a workplace, the workers having organization loyalty and trying to maintain the membership without moving to work somewhere else because they have thoroughly compared the

advantages and disadvantages that will happen if they abandon their membership or resign which the disadvantages will be considered as the appearance of capital that will happen or the benefits they might lose, and this idea views the relationship to the organization as loyalty and willingness to dedicate to the organization which result from a standard of the organization and society. The workers feel that when they are members of the organization which have organization loyalty because that is rightness and propriety, and it is a duty or obligation of the members to dedicate to the organization.

METHODOLOGY

Population that is used in this research project are workers in operating level in the feed mill industry of Thailand of 127 companies which has 21,226 workers. The researcher uses the Yamane formula to find the sample group (1973, pp 727-728)

According to the calculation by the formula of the sample group, the size of the sample group can be specified; the total number is 393 workers and the method used is a stratified random sampling and specify an independent variable which are; The personal characteristics consist of Gender, Age, Working, Length of employment, Income, Working location

The first group of dependent variable is the quality of work life of workers consists of (a) Adequate and fair compensation, (b) Safe and healthy environment, (c) development of human capacities, (d) Opportunity for continued Growth and Security, (e) Social integration, (f) Constitutionalism, (g) Total life space and (h) Organizational pride. And the second group of dependent variable is the organizational loyalty consists of (i) The willing to be the employee of the organization, (ii) The intention and the readiness to try for the organization, (iii) The acceptant and the believe in the goal of the organization.

The procedures used in the study of this project included both close-ended questions and open-ended questions. The statistic techniques used to manipulate these samples include: Frequency, Percentage, Mean, Standard deviation, t-test, One-Way analysis of variance (ANOVA) and Analysis of different group by LSD Comparison method and Pearson product moment correlation.

REFERENCES

- Bruce, Willa M., and Blackburn, Walton J. (1992). Balancing job satisfaction and performance: A guide for human resource professionals. Westport. CT: Quorum Book.

- Considine, Gillian. and Callus, Ron. (2002). The quality of work life of Australian employee. Sydney: University of Sydney.
- Gordon, Judith R. (1993). A diagnostic approach to organizational behavior (4th ed). Boston: Allyn and Bacon.
- Hrebiniak, Lawrence, and Alutto, Joseph. (1972). Personal and role related factors in the development of organizational commitment. Administrative Science Quarterly, 17 (4), p.4.
- Ivancevich, John M (2001). Achieving quality of work life. Human resource management. Upper Saddle River, NJ: Prentice-Hall.
- Meenakshi, Gupta. (2003). To be or not be ? A study of employee turnover (Online). Available: <http://www.hissocial.org> [2008, October 5].
- Muchinsky, Paul M. (1993). Psychology applied to work: An introduction to industrial and organizational psychology. Belmont, CA: Cole.
- Porter, Lyman W., Steers, Richard M., Mowday, Richard T., and Boulian, Paul V. (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. Journal of Applied Psychology, 59(5), pp. 603-609.
- Schermerhorn, John R. (1996). Management (5th ed.) New York: John Wiley and Sons.
- Steers, Richard M. (1977). Antecedents and outcomes of organizational commitment. Administrative Science Quarterly, 22(3), p. 48.
- Steers, Richard M., and Porter, Lyman W. (1983). Motivation and work behavior (3th ed.). New York: McGraw-Hill.
- Schuyler, K.G. (2004). The possibility of healthy organizations: Toward a new framework for organizational theory and practice. Journal of Applied Sociology/Sociological Practice, 21, 57-79.
- Wheelen, Thomas L., and Hunger, J. David. (2000). Quality of work life and human diversity. Strategic management business policy (7th ed.). Upper Saddle River, NJ: Prentice-Hall.
- Yamane, Taro. (1973). Statistics: An introductory analysis. New York: Harper and Row.

DIMENSIONS OF A GREEN DATA CENTER

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ABSTRACT

This paper studies the dimensions of a green data center to achieve the “greenness”. The ultimate motivation to create a green data centers is energy saving. From an architectural perspective, a data center has the following infrastructural components: UPS, power generators, servers, storage systems, air conditioning and cooling system, video monitoring system, cables, and networking devices including switches, routers, firewalls and optical converters. A green data center initiative should start with an energy assessment and based on the dimensions of a green data center. A systematic approach should be adopted.

INTRODUCTION

What is a data center? A good definition is from Wikipedia [1]: “A data center is a facility used to house computer systems and associated components, such as telecommunications and storage systems. It generally includes redundant or backup power supplies, redundant data communications connections, environmental controls (e.g., air conditioning, fire suppression) and security devices”.

Data center is typically a major investment and has a longer life cycle. It is estimated that 80% of data centers in US are 12 years old or older. A lot of UPS systems used in data centers are still based on 1980-90s technologies (non-intelligent and less energy efficient). More importantly, a lot of servers in a data center are underutilized. This is due to a common fact that a lot of applications used to run on old servers are either no longer needed or have been migrated to newer servers, but the old servers are still left running to support fewer legacy applications. These underutilized servers, running fewer apps, still consume electric power and generate heat, like they are fully loaded. This is often called the “80% power consumption, 10-20% utilization” phenomenon.

In addition, a data center typically faces a dual management system problem. The electric power supply to a data center is typically managed by building facility people, while daily operations of a data center are handled by IT staff. As a result, the electric bill is in the building maintenance budget, not in the DC operation budget.

THE MOTIVATIONS

The ultimate motivation to create a green data centers is energy saving. It is estimated by an IBM engineer that if the energy consumption in the data centers in US can be reduced by 20%, equivalently, 150 coal burning medium sized power plants could be closed without affecting anything. This is what called the Green effects

Creating a green data center also serves as a basic step for other related larger initiatives. In recent years, major companies like IBM and Toshiba have initiated projects to create smart grid, smart office building, smart city, or smart planet. It is certainly a good starting point to create a green data center

There is also a fundamental need for a company to create a next generation data center. This is related to a company’s image. As a company grows, so does the data center. Usually the capacity of existing data centers is bounded by power supply and cooling capacity. Power/cooling capacity limits the expansion of a data center. In addition, there is also a server or networking equipment upgrading cycle. Therefore, creating a green data center is also a data center life cycle issue.

COMPONENTS OF A DATA CENTER

How to create a green data centers? How to upgrade traditional data centers? This should start with the identification of the infrastructure and major components.

Different infrastructure has different design and energy requirements. From an architectural and design topology perspective, four tiers of data centers are normally identified. The following table is the Uptime Institute’s tiered classification system, which is considered an industry standard approach [2]. See the table on the next page.





Tier I	Basic Site Infrastructure: <ul style="list-style-type: none"> Has non-redundant capacity components and a single, non-redundant distribution path serving the computer equipment. Planned work will require most or all of the site infrastructure systems to be shut down affecting computer equipment, systems, and end users.
Tier II:	Redundant Site Infrastructure Capacity Components <ul style="list-style-type: none"> Has redundant capacity components and a single, non-redundant distribution path serving the computer equipment. Redundant capacity components can be removed without causing any of the computer equipment to be shut down.
Tier III	Concurrently Maintainable Site Infrastructure <ul style="list-style-type: none"> Has redundant capacity components and multiple independent distribution paths serving the computer equipment. All IT equipment is dual powered. Each and every capacity component and element in the distribution paths can be removed from service on a planned basis without impacting any of the computer equipment.
Tier IV	Fault Tolerant Site Infrastructure <ul style="list-style-type: none"> Has multiple, independent, physically isolated systems that provide redundant capacity components and multiple, independent, diverse, active distribution paths simultaneously serving the computer equipment. Having “N” capacity providing power and cooling to the computer equipment after any infrastructure failure. Continuous Cooling is required.

A data center typically has the following components that can be classified into the following categories.

Environment	Air conditioning and Cooling system
Power Systems	UPS, Power generators (onsite power generating; gas turbine), lighting
Physical access control and protection systems	Video monitoring system, and fire and physical security systems
IT Equipment	Servers, Storage systems, big screen displays, cables, networking devices including switches, routers, firewalls and optical converters

DIMENSIONS OF A GREEN DATA CENTER

Based on the discussions in the above section, a general table can be developed as follows to guide the efforts to determine the dimensions or specific areas of a green data center. The degree of intensity indicates the importance of the areas of energy improvement.

	Tier 1	Tier 2	Tier 3	Tier 4
Environment	Low High			
Power Systems	Low High			
Physical access	Low Mid			
IT Equipment	High High			

The followings are specific dimensions identified to determine the areas of improvements.

Environment	<ul style="list-style-type: none"> Air flow redesign to improving cooling system; A new floor plan to improve cooling and air flow;. Air cooling vs water cooling
Power Systems	<ul style="list-style-type: none"> Energy efficient UPS; Alternative wind/solar energy integrated into UPS; LED lighting
Physical access control and protection systems	<ul style="list-style-type: none"> Selecting energy efficient devices.
IT Equipment	<ul style="list-style-type: none"> Use energy efficient networking devices; Server consolidation; Server virtualizations; Wiring/cabling rerouting/redesign.

SETTING THE TARGET

An energy efficiency target should be created. The most commonly used parameter to measure the energy efficiency of a data center is power usage effectiveness, or PUE[3], which is the total power entering the data center divided by the power used by the IT equipment.

$$\text{PUE} = \frac{\text{Total Facility Power(kW)}}{\text{Power used by IT Equipment (kW)}}$$

According to an EPA report, the average PUE in data centers in the US is 2.0 [4]. This means a 50% of energy wasted on infrastructure other than the IT equipment. A PUE target should be around 1.5 for at least a 25% energy efficiency improvement.

ASSESSMENT

Based on the dimensions of a green data center identified, an implementation plan should start with an energy assessment. This is a systematic approach which should be adopted in each green data center project. This is the key to a green data center. Besides, an energy assessment is a critical issue in terms of that management needs to see ROI to justify investment in creating a green data center.

It is estimated an initial/preliminary energy assessment and improvement can lead to 10-15% energy savings, and this can be easily achieved by improving only a few areas.

CONCLUSIONS

Data center improvement should follow a systematic approach. The first step is to identify the dimensions of a green data center. All green data center projects should begin with an energy assessment based on the identified dimensions of a green data center.

REFERENCES

- [1] Wikipedia, accessed on 3/10/11.
http://en.wikipedia.org/wiki/Data_center.
- [2] Uptime Institute, accessed on 3/2/2011,
http://professionalservices.uptimeinstitute.com/UIPS_PDF/TierStandard.pdf.
- [3] Wikipedia, accessed on 3/10/11.
http://en.wikipedia.org/wiki/Data_center.
- [4] EPA report, 2007, available at
http://www.energystar.gov/ia/partners/prod_developm

ent/downloads/EPA_Datacenter_Report_Congress_Final1.pdf. Accessed on 3/2/2011.

Green IT Maturity among Korean Companies: Assessment and Improvement Strategies

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ABSTRACT

One consequence of the new economic imperative of developing an environment-friendly and sustainable economy has been the growing importance of green management as a corporate management strategy. In Korea, the government has put forth a green growth vision, and followed suit with policy measures reflecting this vision. Companies, in their turn, have announced various new management plans reflecting this green vision. This study presents a model for assessing the level of green IT maturity, developed by taking into consideration IT maturity level and environmental regulatory of Korea. We use this model to evaluate 50 Korean firms selected as representatives of their respective industry sectors to assess the overall level of green IT maturity among Korean companies. Improvement strategies, based on the results of assessment, are presented as well.

Keywords: Climate Change, Sustainability, Green IT, Green Management, Green IT Maturity Model

I. INTRODUCTION

Amid growing concerns about the environmental impact of economic activities and interest in a new sustainable type of economy, worldwide, there is an increasing need for a viable model for green growth. In today's business environment, where competition is intensifying both on the quality and price fronts, a company's environmental capacity is emerging as the new determinant of the outcome of competition. Meanwhile, the regulatory pressure from the government and the pressure from consumers to shift to green management are enormous. As corporate strategies are increasingly focused on green management, this has also resulted in an increased emphasis on green IT [1]. Informatization can, indeed, have a positive as well as negative impact on the environment. What companies need to do, in sum, is make their information systems green in such a way as to maximize the sustainability of corporate activities as a whole; at the same time as minimizing the environmental impact of information resources.

In this study, we present a model for assessing the level of green IT maturity among Korean companies,

developed by taking into consideration IT maturity level and environmental regulatory of Korea. Using this model, we evaluate the level of green IT in 50 companies that are representative of their respective industry sectors. Based on the results of assessment, we present strategies for improving the level of green IT maturity.

II. LITERATURE REVIEW

2.1 Green Maturity Model (GMM)

Accenture developed a green maturity model as a consulting methodology for evaluating the level of green IT maturity of companies and deriving tasks for improving their green capacity and is currently providing green IT consulting based on this model. Accenture's green maturity model measures the green IT maturity of companies, using close to 300 indicators in five evaluation areas, including data centers, office environment, work practice, procurement, and corporate citizenship [2].

2.2 Green ICT Scorecard

The British Cabinet Office jointly developed a green ICT scorecard with Gartner to assess the level of green IT maturity among government organizations [3]. The green ICT scorecard, developed as part of project to reduce the environmental impact of ICT, is designed and used in line with the targets of the Sustainable Operations in the Government Estate (SOGES) by the British government. The best practice by the British Ministry of Defence has been consolidated and integrated into the green ICT scorecard, and in 2009, the scorecard was piloted in eight government agencies and the local government of Scotland [4].

2.3 Green IT Readiness Index

Connection Research, the Australian IT consulting firm, jointly developed with the Royal Melbourne Institute of Technology, a green IT readiness index for measuring the level of green IT maturity among Australian companies, under a project begun in 2009. Connection Research tracks about 200 Australian companies and has been publishing their rankings based on this index [5][6]. The green IT readiness of companies is measured in 36 items in five areas,

including lifecycle, end user, enterprise, enablement and metrics.

2.4 Implications of the Existing Literature

The analysis of research trends in major countries confirmed the fact that measuring performance is a prerequisite for increasing the awareness of the importance of green IT and promoting green IT activities. The analysis also revealed that efforts are continuously being made to find more effective ways to measure progress in green IT and improve green IT readiness from various angles, according to the target organization and reflecting the specific situation in a country. The goal of this study is precisely to develop an evaluation model which takes into account the environmental policy at the national level and IT maturity level of Korean firms, so as to identify and formulate concrete tasks and guidelines which actually correspond to the reality of Korean firms.

III. DEVELOPING A GREEN IT MATURITY MODEL

Before developing a methodology for measuring the level of green IT maturity among Korean firms, we first turned to the existing literature and analyzed indicators considered in related models that are in use overseas to see whether and to what extent they could be applied to Korean firms. More than 300 indicators used by Accenture, Gartner, and Connection Research were reviewed together, and 66 candidate indicators were selected.

The 66 candidate indicators chosen from this primary round of selection were tested through two rounds of a Delphi survey conducted on 36 Korean green IT experts, and through a Content Validity Ratio (CVR) analysis [7]. 64 of them were retained and were classified into five main categories. We also conducted an AHP analysis to calculate weights for each of the five main categories and the 64 indicators [8].

IV. MEASURING THE LEVEL OF GREEN IT MATURITY AMONG KOREAN FIRMS

4.1 The Overall Analysis of Results

To test the green IT maturity model developed in this study for its practical applicability and to measure the level of green IT maturity among Korean firms and explore strategies for improving their related performance, we evaluated 50 companies (including public organizations) using this model.

The overall average score of the 50 Korean firms, evaluated for green IT maturity, was rather poor at 2.51 (the maximum score being 5). However, the average score among the top 20% firms (10 companies) was significantly better at 3.6 (the corresponding scores for the bottom 80% firms being 2.2). Some leading firms scored even higher than 4pts. In spite of the fact that most of them were established companies,

representative of their respective business sectors, the score gap between them was quite wide.

TABLE 1 Results of Assessing the Level of Green IT Maturity among Korean Firms

Category	Score	Analysis
Overall	2.51	The level of green IT maturity among Korean firms was within the average range. Their level of green IT maturity was comparatively higher in terms of work practice and data centers, but poorer in terms of office environment and social responsibility. Meanwhile, the level of green IT maturity among Korean firms was the lowest in terms of procurement.
Data centers	2.49	Even though Korean firms have a power usage monitoring system in place, the level of infrastructure optimization for greater energy efficiency remains generally low.
Office environment	2.22	Energy saving schemes are in use in the office environment, but IT is not actively tapped for this purpose.
Work practice	2.93	Although the level of digitalization of work processes is quite high, and good progress has been made in terms of construction of a mobile office environment, actual improvement in processes appears rather insufficient.
Procurement	1.90	Insufficiency in terms of green IT policy and processes related to the purchase of IT devices and equipment.
Social Responsibility	2.37	Processes for reusing internal resources are in place, but more efforts are needed to reduce waste production and increase the reuse of resources.

4.2 Improvement Strategies by Area

4.2.1 Greener Data Centers

In order to improve their level of green IT maturity for data centers, Korean firms need to more methodically monitor energy consumption, and on the other, to take bold measures to cut energy use. The first and foremost step to take is to reduce the number of servers by more efficiently managing server space, which can be done through virtualization technology or orchestration tools. Meanwhile, to maximize power efficiency, the performance of the servers must be optimized, and they must be replaced as appropriate according to an intelligent management scheme. The goal is to make building additional data centers unnecessary through rationalization of existing data centers and reducing their number by consolidating them.

4.2.2 Greener Office Environment

In order to improve their level of green IT maturity, concerning the office environment, need to invest more in thin clients, SBC, cloud computing and other solutions to increase the efficiency of the use of information resources. Meanwhile, desktops must be replaced by laptops which consume much less power than the latter and are better for providing employees with mobility needed for smart work. The use of a virtual fax service and multifunction, all-in-one printers/copiers should also help reduce the number of IT devices required per person

4.2.3 Smart Work Practice

For a wider application of smart work - in other words, video conferencing, telecommuting, mobile work and tele-collaboration-, Korean companies need to build IT infrastructure necessary to enable it and establish a policy to promote it. Even after the digitalization of processes, additional steps should be taken to simplify them, for instance, by eliminating unnecessary procedures such as drafting and storing unnecessary documents, face-to-face reporting and handwriting. Meanwhile to decrease information resources and reduce greenhouse gas emissions in a rational manner, a greenhouse gas emission trading scheme must be introduced, and the cost of IT services shared through internal cost allocation.

4.2.4 Sustainable Procurement Processes

In order to enhance the level of green IT maturity in procurement, Korean companies need to build an environment-friendly procurement system by generally improving processes having to do with asset purchase, supplier selection and transportation and delivery, and by strengthening related rules. Rules should be also established to require the purchase of energy star-rated products and products that are compliant with WEEE, RoHS, EuP and other environmental regulations, and a green supply chain management system must be put into place. Also important is to optimize the lifecycle of IT assets for their efficient management, and to manage them using a CMDB(Configuration Management Database).

4.2.5 Better Social Responsibility

Recommendations for Korean firms to improve their level of green IT maturity in the area of social responsibility are as follows: They must define toxic or harmful substances contained in all discarded IT resources, classify them according to the type of substance and analyze and audit them to measure and manage their environmental impact. More efforts should be also made to re-use wastewater and waste heat produced from office equipment and facilities and IT resources. Ideas and suggestions from employees keenly interested in the environment should be actively reflected in environmental policy, and employees must be encouraged to participate in

environmental campaigns and be provided with necessary support to do so.

V. CONCLUSION

The purpose of this study was to measure the level of green IT maturity among Korean firms and identify tasks for improvement. Considering the fact that the 50 firms evaluated in this study are mostly large established companies, the overall level of green IT maturity among general Korean firms including SMEs are likely to be even lower. Hence, it is urgent for Korean firms to make further efforts to improve their green IT performance.

Leading companies around the world are making active efforts to make their processes greener end-to-end, from product development processes to sales processes. With green capacity being increasingly perceived as a key capacity for acquiring competitive advantage, green management is today amongst their highest priorities. Green IT, meanwhile, is a central element of green management, considered one of the main yardsticks of the green capacity of an organization. Although the evaluation model to assess the level of green IT maturity, developed in this study, is far from perfect, this study is, nevertheless, rich in implications as an attempt to gauge progress in this field and identify tasks for improvement.

REFERENCES

- [1] Watson, R.T., M.C. Boudreau, C.J. Adela, Information systems and Environmentally Sustainable development: Energy Informatics and New Directions for the IS Community, MIS Quarterly, 2010, 34(1), 23-38.
- [2] Hersch, R. D. and C. R. Bonecutter, The business case for a greener IT agenda: Accenture Outlook 2008, The journal of high-performance business, 2008.
- [3] OECD, Towards Green ICT Strategies: Assessing Policies and Programmes on ICT and the Environment, 2009.
- [4] Cabinet Office of UK, Greening government ICT: Efficient, sustainable, responsible, 2008.
- [5] Connection Research, Green IT and Sustainability in Australia 2010, 2010.
- [6] Molla, A., V. Cooper, Green IT Readiness: a Framework and Preliminary Proof of Concept, Australasian Journal of Information Systems, 2009, 16(2), 5-23.
- [7] Lawshe, C. H., A quantitative approach to content validity, Personnel Psychology, 1975, 28, 563-575.
- [8] Saaty T. L., The Analytic Hierarchy Process, McGraw Hill International, 1980.

Strategies for the Implementation of RFID-Enabled Green Supply Chains

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Abstract

The quality of human life depends upon ecosystem products and services. However, the natural environment is at risk due to a number of environmental problems such as global warming, water pollution, ground pollution, etc. The green principle, called Green supply chain management (GSCM), is gaining increasing interest among researchers and practitioners of supply chain management. For example, the ISO 14001 environmental management system standard is becoming the dominant international standard for assessing environmental management processes. Recently, organizations have begun to use Radio-Frequency Identification (RFID) systems to implement their GSCM strategies. This study intends to explore a state-of-the-art on RFID systems deployments in GSCM. Through a cross-case analysis, this study presents strategies to provide some guidance to the organizations that are currently considering applying RFID systems for GSCM.

Introduction

In the 1980s, organizations were more likely to implement strategies (e.g., just-in-time manufacturing, kanban, lean manufacturing, and total quality management) that reduce costs and better compete in different markets. In the last few years, however, many of these organizations have realized that they have reduced costs as much as is practically possible. In order to increase profit and market share, organizations are moving their attention towards supply chain management. It has become clear that the need to effectively manage organization operations now extends beyond internal processes to include customers and suppliers. Governments and transnational institutions have launched green initiatives, encouraging cooperative actions to address these issues. More and more organizations respond by adopting environmental management strategies such as using environmentally friendly raw materials, reducing the usage of petroleum power, and using the recycle papers for packaging. These principles have now being expanded to include all aspects of the supply chain.

Recently, a rapid deterioration in the global environment has forced organizations to include one more – the ‘green’ component - to supply chain management. Generally, green supply chain management (GSCM) can be generally defined as the practices of improving environmental performance along the supply chain, including product design, operations management, and customer relationships [8]. Green product design incorporates environmental considerations into new production and process development. For example, an

organization can use Life cycle assessment (LCA) to evaluate the environmental consequences of a product over its full life cycle. Specifically, LCA focuses on tracking all material and energy flows of a product from acquisition of its raw materials to its disposal. Green operations management encompasses environmental protection activities, which are usually undertaken after the design has been finalized: material purchasing, product manufacturing, product delivery processes, and customer relationship management. For example, an organization can develop environmentally based initiatives to require suppliers to achieve an internationally accepted standard (e.g., ISO 14001 certification). Then, the organization can apply environmentally conscious manufacturing methods such as total quality environmental management (TQEM). TQEM is a managerial philosophy that includes empowerment of employees, continuous improvement, cross-functional collaboration, and leaderships. After making the final product, the organization can use eco-friendly delivery methods to reduce energy consumption. Also, green marketing polices influence customer relationships significantly as customers are more aware of environmental issues.

Green supply chain versus Reverse logistics

As discussed above, GSCM can be described as integrating environmental concerns into various aspects of supply chain management. It should be noted that GSCM includes some reverse logistics activities. Reverse logistics integrates the return of products back into the forward logistics chain. Specifically, reverse logistics can be defined as the process of moving the products from the point of consumption to the point of origin in order to recapture value. Distribution systems that encompass both the reverse and forward logistics are known as closed-loop supply chains. As environmental regulations have forced organizations to collect products at the end of their useful lives, there has been growing interest in reverse logistics. Thus, reverse logistics, originally emerged with industry needs to improve the natural environment, has been used interchangeably with GSCM. For example, the use of recycled materials and products in manufacturing can be considered both reverse logistics and GSCM issue. However, although there is some overlap, it should be noted that there are differences between them [3]. As shown in Figure 1, some GSCM issues are not related to reverse logistics. For example, programs such as pollution-prevention at the source and environmental packaging are not reverse logistics activities.

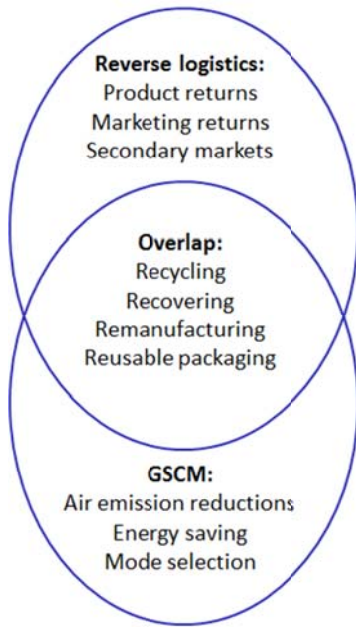


FIGURE 1 Interaction between reverse logistics and GSCM (Adopted from Meade et al [3])

Green technologies

Technology has become an important means that helps organizations solve the environmental problems [4]. Broadly, green technology is defined to include all the activities concerned with the design, equipment, and operating procedures that help organizations improve the natural environment. There are three types of environmental technologies based on the operations strategy literature [9]. First, pollution prevention technologies allow organizations to prevent pollution at the source proactively. Examples include those technologies concerned with environmentally friendly manufacturing processes. Second, pollution control technologies, also called end-of-pipe technologies, allow organizations to ensure a proper disposal of waste, reduce the release of pollutants, or correct past environmental damages. Examples include those technologies concerned with air pollution control equipment or waste water treatment equipment. While the first two technologies are related to IT investment in tangible assets, the third, management systems, are related to IT investment in intangible assets such as new environmental training for employees or new environmental audit programs. Green technologies are being applied to all the activities along the supply chain. Especially, with the addition of reverse logistics using recycled materials, much attention has been paid to the application of radio frequency identification (RFID) to closed-loop manufacturing.

The application of RFID to GSCM

RFID is not an entirely new technology. It originated in the 1940s, when the British Air Force used RFID-like technology to detect friendly aircraft from foe. RFID technologies have gained considerable interest from supply chain industries. The use of RFID is becoming prevalent in supply chains, with large organizations such as Wal-Mart and Procter & Gamble. Those organizations are now applying RFID to GSCM. RFID systems consist of three components: the tags (transponder), reader, and computer. RFID tags are the microchips used to uniquely identify the product, pallet, case, or people over a wireless protocol. There

are three types of tags: passive tags, active tags, and semi-passive tags. Passive tags do not have battery and less expensive. They are more popular, but their signal range is very low (usually less than 10 feet). Active tags use battery to energize RFID chip. Compared to passive tags, active tags are more expensive and less popular. They provide a longer read/write range (up to a 100 feet or more), offer greater functionality. Semi-active tags are activated when woken up by a signal from the RFID reader. RFID readers can communicate with the RFID tags. Specifically, readers capture data from tags then pass the data to a computer for processing.

Case 1: RFID in product recycling & recovery

In order to ensure the quality of product recycled, organizations should collect accurate information on its properties [2]. Thus, organizations should build an effective and efficient closed-loop supply chain so that all the products recycled never exit the loop. In recent years, a growing body of literature has discussed the potential of RFID in mitigating many of the deficiencies associated with the development of a closed-loop supply chain. One example is the U.S. Navy's RFID field trial in 2005, which used RFID to manage broken parts being returned from Iraq for repairs [7]. The trial has been successful and the Navy continues to conduct more RFID projects to track broken parts moving through its supply chain.

Another example is the CONtrolled Closed LOop REcycling (CONCLORE) project, sponsored by the EU. The purpose of the project is to create a sustainable RFID embedded system to manufacture cost-effective automotive parts out of recycled end-of-life vehicles (ELVs). Trend towards RFID-based automotive GSCM is expected to continue as policy principles such as Extended Producer Responsibility (EPR) are becoming increasingly common solutions to the problems of e-waste. EPR, also known as product stewardship, encourages manufacturers to take responsibility for the end-of-life collection and disposal of their products [10].

Waste management is also one of the most promising areas of RFID applications [1]. Various RFID projects have been launched to increase not only waste management efficiency but also environmental responsibility. These projects include RFID tags attached to the recycling bins and RFID readers installed on the recycling trucks. Each tag contains the data such as the address of the bin's user. When the truck picks up a particular bin at the curb, the reader captures the data. Based on the data, some municipalities such as Genesee County in Michigan send incentives (e.g., discounts at local restaurants or retail stores) to households that frequently recycle their trash [6].

Case 2: RFID in energy saving & air emission reductions

RFID can be used to improve significant energy efficiency and reduce air pollution. One example is Deutsche Post DHL's SmartTruck project in 2009, which integrates RFID into its delivery trucks [5]. Deutsche Post DHL's initiative also includes a navigation system that uses real-time traffic data to innovate route planning and reduce total miles driven. The project has been successful and Deutsche Post DHL has decided to conduct more RFID projects to achieve its goals - improving the CO₂ efficiency of its operations by 30 percent by 2020.

Another example is the Indisputable Key project in 2006, launched by 29 partners from 5 countries: Estonia, Finland, France, Norway and Sweden [11]. The partners, including research institutes, universities, industrial developers, forestry and sawmill companies, develop a system for tracing wood throughout the forestry supply chain. Specifically, the project

aims to increase sawmill efficiency and raw material usage, eventually minimizing environmental impacts. Forestry and wood network is one of the most important sectors of the EU. Previously, it was difficult for the partners involved in the wood-production supply chain to share all the data with one another. The project includes an RFID-based application, which is used to mark the logs during the harvesting in the forest. RFID tags on the logs transmit real-time data that can be used to improve competitiveness of the forest industry as well as reduce emissions and waste.

References

- [1] Abdoli, S. RFID Application in municipal solid waste management system. International Journal of Environmental Research, 2009, 3(3), 447-454.
- [2] Field, J.M. and Sroufe, R.P. The use of recycled materials in manufacturing: Implications for supply chain management and operations strategy. International Journal of Production Research, 2007, 45(18-19), 4439-4463.
- [3] Meade, L., Sarkis, J., and Presley, A. The theory and practice of reverse logistics. International Journal of Logistics Systems and Management, 2007, 3(1), 56-84.
- [4] Melville, N. Information systems innovation for environmental sustainability. MIS Quarterly, 2010, 34(1), 1-21.
- [5] Neely, B. DHL says its SmartTrucks save money, time and CO2. RFID Journal, 2009.
- [6] O'Connor, M. C. Michigan households get RFID-enabled rewards for recycling. RFID Journal, 2009.
- [7] Roberti, M. Navy tests RFID for reverse logistics. RFID Journal, 2005.
- [8] Srivastara, S. K. Green supply chain management: A state-of-the-art literature review. International Journal of Management Reviews, 2007, 9(1), 53-80.
- [9] Vachon, S. Green supply chain practices and the selection of environmental technologies. International Journal of Production Research, 2007, 45(18), 4357-4379.
- [10] Visich, J.K., Li, S., and Khumawala, B.M. Enhancing product recovery value in closed-loop supply chains with RFID. Journal of Managerial Issues, 2007, 19(3), 436-452.
- [11] Wessel, R. Wood companies look to RFID to raise yield, reduce carbon footprint. RFID Journal, 2008.

Exploring FDI Atmospherics in Corporate Strategies for the New Green World's Sustained Economic Growth

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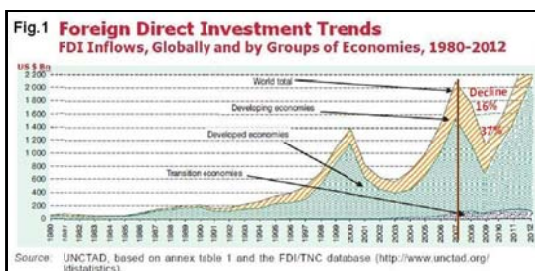
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ABSTRACT:

Literature cites, academics and policymakers, as well as TNC/MNCs and investment agencies, often refer to foreign direct investment (FDI) the most as a conduit for corporate strategies for the new green world to meet sustained economic growth in unison with host countries. This is because of several benefits and advantages outweigh disadvantages of FDI and its importance in the world economy. They vouch for FDI not only for its stability as a source of capital flow to an economy, but also for technology and knowledge transfers, managerial skills, and best practices as well as generate employment, advance trade and efficient resource utilization with a future focus for sustained economic growth. To this end, green-world drivers push corporate strategies to invest abroad, while locational determinants influence where to invest coupled with public policies conducive to investments in sustainable development and low carbon technologies in FDI decisions.. Strategies for low-carbon foreign investment backed public policies can facilitate the expansion and upgrading of developing countries' productive capacities and export competitiveness, while helping their transition to sustained economic growth. FDI also plays a significant role in meeting the challenges of climate change mitigation by contributing the needed financial and technological resources. This requires a better integration of investment policies with the climate change framework and sustainable development strategies by countries and corporate strategies alike.

INTRODUCTION

Foreign Direct Investment [FDI] is a driving force of globalization and an important engine of economic growth. In the past 25 years, FDI has been the dominant form of capital flow in the global economy, outpacing world trade gains, increasingly sought after by developing countries and big emerging markets. The relationship between corporate strategies for the green world and host country aspiration is receiving increased attention in the light of globalization and its implications for sustained economic growth. Historically, developed countries pioneered by transnational [TNC] or multinational corporations [MNC] benefited immensely by FDI and developing countries via public policy measures increasingly began to seek and attract FDI due to its many advantages for economic development. Foreign direct investment has played a critical and growing role in the global economy assisted by accompanying improving absorptive capacities in host countries. To a host country, FDI promises a source of new resources and new technologies that could spur national economic growth and development of various sectors. Evidence of FDI influence on economic growth figures prominently both in theoretical and empirical studies focusing on a large number of developing nations, among them cited in the paper are strong growth in regional FDI inflows in South, East & S-E Asia, e.g., China, India, Malaysia, and Sri Lanka. To a home country TNC or MNC, FDI offers the promise of new markets, a mode-of-entry beyond exporting and less expensive export-led production facilities. This current paper draws on reports, findings, reviews and relies on the existing FDI statistical systems, reported by UNCTAD World Investment Report 2010, World Investment Prospects Surveys 2009 & 2010, EIU, among others cited, to examine the various issues related to



FDI definitions, trends, perspectives, policies and significant operations during the past two decades, decline during global economic crisis [2007-2009], and prospects for 2010-2014. Of significance is the trend of FDI in a low-carbon economy, and the Strategies of Transnational Corporations (WIR 2010). Low-carbon FDI in areas such as renewables, recycling and low-carbon technology manufacturing is already large (some \$90 billion in 2009), but its potential is huge concludes UNCTAD's 2010 World Investment Report. Around 40 percent of low-carbon emission FDI projects by value during 2003-2009 were in developing countries. Yet there is potential for much more "green" FDI to flow into developing economies and the role of the private sector will be critical in tackling climate change by expanding its presence in those countries. Recipient countries will need to do more by adopting market-creating policies that can foster demand for new low-carbon products and services. (WIR 2010). The World Investment Report 2010 draws attention to investing in a low-carbon economy. The report illustrates global and regional trends in Foreign Direct Investment followed by recent policy developments. The emphasis on leveraging foreign investment for a low carbon economy describes characteristics and scope of low-carbon foreign investment; its drivers and determinants; strategies and policy options; and sums up with global partnership to further low-carbon investment for sustainable development. (WIR 2010). As seen in Fig. 1, Annual FDI flows increased fifteen-fold from about \$55bn in 1980 to \$1.4 billion in 2000 and increased to over \$2 trillion in 2007. FDI soared not only in absolute terms but also in relative terms. Overall FDI flows accounted for about 3 percent of world-wide exports in 1980-1985. By 2000, the FDI/export ratio exceeded 15 percent. In other words, while exports remain the dominant form of corporate internationalization strategies, globalization through FDI has gained significantly in relative importance. However, FDI inflows fell 37 percent from 2008 to 2009 to \$1.114 trillion. However, this amount still represents the 5th highest amount of cross border investment flows since data began to be recorded. It accounts for a whopping 11% of global GDP output and over 80 million jobs. In addition early signs from the beginning of 2010 suggest there will be modest and uneven recovery in trillion by 2014 depending on data provided by WTO/UNCTAD, EIU and author's calculations

Exhibit Ia. Advantages of FDI	Exhibit Ib. Disadvantages of FDI
1. FDI Offers the greatest potential rewards	1. FDI Offers the greatest potential risks.
2. Cost effective and skilled labor in host country	2. Increases financial commitment and capital investment on initial outlays
3. Direct and better understanding of local market conditions, adapt products for market	3. Higher cost for travel and communications abroad.
4. Fewer local restrictions and can minimize red tape	4. Non familiarity with local business tax laws, business scene in general, and various government and legal regulations.
5. Avoids tariff and non- tariff barriers	5. Faces risks of exchange rate changes or fluctuations, ownership changes by government. Currency inconvertibility
6. Secures access to raw-materials located in the host country	6. Differences in language, customs and culture.
7. Protects export market shares if competitors also have plants in host country or region.	7. Higher costs in wages & benefits packages for personnel abroad
8. Causes a flow of money into the economy to stimulate economic growth:	8. Domestic firms may suffer if they are relatively not-competitive
a). increased employment & skill base b). expands long run aggregate supply/demand	9. Increased FDI into one industry brings over-reliance which makes a country too dependent on it and it may turn into a risk.
9. Provides domestic producers incentive to be more efficient.	10. Adverse effects may occur when BOP capital outflows accompanied by quick profit remittances.
10. Host country government experiencing increasing levels of FDI will have a greater voice at international summits as their country will have more stakeholders	11. Unplanned rapid FDI inflows may result in environmental issues.
11. Acquisition of firms in a host country helps acquire skilled personnel & valuable resources.	12. Large scale conspicuous investments bring political and financial risks.
12. The market imperfections approach to FDI is typically referred to as internalization theory	
13. Avoids import quotas & trade restrictions in favor of FDI projects.	

14. Removal of trade restrictions among regional groups/countries also may attract FDI	13. Critics are concerned that the national interest of host country may not be best served if a foreign firm makes decisions from home abroad hqrs
15. Availability of raw materials, parts, resources and Just-In-Time manufacturing systems [JIT] and efficient supply chains lowers cost and delivery time.	14. Reluctance to transfer resources such as patents, trademarks, management know-how.
16. Financial & fiscal [duty concessions] incentives via SEZ	15. Home country rivals have access to acquired technology that can be used to their competitive advantage.
17. Nationalism: purchase of locally produced goods provides rationale for a nation's pride.	16. Pricing guidelines and/or foreign exchange regulations inhibit FDI.
18. Country-of-Origin effects: fear that service and replacement parts for imported products will be difficult to obtain when exporting only from home country	17. Restrictions on investor market entry strategy
19. Technological know-how: enables a company to build a better product, improve its production process vis-à-vis competitors.	18. Percentage restrictions on investments and ownership
20. Marketing know-how enables the company to better position its products in the market/place vis-à-vis competitors. and provide consumer benefits [price, quality, ...]	19. Product image suffers when manufacturing in a host country that has low-status for a product image or brands.
21. Management and best practices know-how: enable a firm to manage its assets more efficiently than competitors.	20. Changes in comparative costs are subject to changing conditions.
22. Greater control of product marketing strategy, better after market service for products.	21. Extra expenses incurred for management talent to train staff and managers in host country.
23. Lower costs of supplying firm's products; minimize transportation & other logistic costs yielding higher profits.	22. Increased costs incurred when operations are to be coordinated among world-wide units.
24. Indirect incentives [Provides land and infrastructure at lower commercial prices]	23. Delays in set-up due government bureaucracy/local political demands.
25. First mover advantage causes rivals to rethink market entry - Market potential & accessibility in host country/region [e.g. Free Trade Agreements/operations]	24. High FDI investment costs than exporting or other modes of entry:
	25. Political risk/unrest accompanied by fear of exportation/nationalization by host country or may claim of ownership on firm's property.

Source: Adapted/enlarged listing by author, cf. FDI coverage by Fred Luthans & J.P. Doh, *International Management*, 7th ed., McG-Hill Irwin; Mike Peng, *Global Business*, SW, 2009, M. Czinkota et al. *International Business*, 7th ed., Thomson; Arvind Phatak et al., *International Management*, McG-H 2009; S.T. Cavusgil et al., *Int'l Business*, PPH, 2008, 'Advantages' & 'Disadvantages' of FDI Policy; unido.org

This paper explores the changing relationship between FDI and sustained growth, especially for emerging economies, and emphasizes the importance of absorptive capacity and policies in the host country's ability to benefit fully from FDI and encourage MNC/TNC corporate strategies. It is presented against the backdrop of the deepest global economic slowdown since the great depression of the 1930's and the modest recovery of 2010. As we slowly emerge from the global economic slowdown, and as the economic balance of power gradually shifts towards emerging economies led by the BRICKS, this paper highlights the importance of FDI to economic growth and development, as well as the changing nature of the relationship between emerging economies and FDI related to the potential of FDI in corporate strategies for the green world.

The annual UNCTAD WIR and a fund of literature, both theoretical and empirical available, many cited in this paper enable the analysis of FDI rise during two decades, recent fall and policy implications of the global slowdown/crisis from late 2007 going into 2008 -2009; and look at prospects for 2010-2014. These findings are also in line with those of other sources, such as GCR/WEF. EIU, the IFO *Global Business Index* and OCO Global 2008-2009, *12th Annual CEO Survey*.^[10] Over the past twenty years, FDI inflows have expanded substantially. Greater involvement by TNCs/MNCs not only lead to greater productivity in manufacturing, in agriculture, rural development essential to economic growth but also to the alleviation of poverty and hunger. Although GDP growth rates in emerging markets did not fall as much as they have in advanced economies, the notion that the developing world would be only marginally affected by the crisis, having decoupled from the business cycle of industrialized economies, has not held true^[11]. However, it is important to note that the crisis has not affected developing countries in a homogenous way— some economies are showing a higher resilience and even managing to enhance their

competitiveness in the midst of the global downturn. According to IMF Update^[12] global economy is beginning to pull out of a recession unprecedented in the post-World War II era, but stabilization is uneven and the recovery is expected to be sluggish. Financial conditions have improved more than expected, owing mainly to public intervention, and recent data suggest that the rate of decline in economic activity is moderating, although to varying degrees among regions.^[12] Cross border mergers and acquisitions [M&As] are the principal drivers of this growth, as they are the main form of FDI in the developed world and an increasingly important one in emerging markets^{[18][19][21][22][23]}

Table 1: FDI Global Flows, by Region Groups, 2007 - 2009 (Billions of dollars and percent)

	2008	2009	2010	2011	2012	2013	2014
World total	1,718.4	1,019.7	1,302.5	1,519.0	1,709.4	1,871.2	2,009.0
% change	-17.4	-40.7	27.7	16.6	12.5	9.5	7.4
Developed countries	894.3	488.1	619.9	734.8	837.8	931.7	996.7
% change	-33.2	-45.4	27.0	18.5	14.0	11.2	7.0
Emerging markets	824.1	531.6	682.6	784.2	871.7	939.4	1,012.3
% change	11.0	-35.5	28.4	14.9	11.1	7.8	7.8
of which:							
Sub-Saharan Africa	46.4	28.6	36.6	39.0	45.1	45.4	46.7
% change	22.7	-38.3	27.9	6.6	15.6	0.6	2.9
Middle East & North Africa	98.7	62.6	77.0	87.3	91.6	98.7	105.6
% change	25.2	-36.6	23.0	13.4	5.0	7.7	7.1
Developing Asia	331.2	246.4	319.6	372.0	414.8	457.6	496.7
% change	8.2	-25.6	29.7	16.4	11.5	10.3	8.5
Latin America & Caribbear	144.3	88.2	114.0	127.6	138.3	149.1	160.0
% change	12.0	-38.9	29.2	12.0	8.4	7.8	7.3
Eastern Europe	180.6	95.9	122.7	143.1	150.1	155.6	164.0
% change	9.5	-46.9	27.9	16.7	4.9	3.7	5.4
% share developed countries	52.0	47.9	47.6	48.4	49.0	49.8	49.6
% share emerging markets	48.0	52.1	52.4	51.6	51.0	50.2	50.4
% of GDP							
World	2.9	1.8	2.1	2.4	2.5	2.5	2.5
Developed countries	2.2	1.3	1.6	1.8	2.0	2.1	2.1
Emerging markets	3.9	2.7	3.0	3.1	3.1	3.0	2.8

Source: Economic Intelligence Unit, 2010

The Determinants & Drivers of FDI Flows

The relationship between foreign direct investment [FDI] and economic growth is a well-studied subject in the development economics literature, both theoretically and empirically. Recently, renewed interest in growth determinants and the considerable research on externality-led growth, with the advent of endogenous growth theories^[9], made it more plausible to include FDI as one of the determinants of long run economic growth. The interest in the subject has also grown out of the substantial increase in FDI flow that started in the late 1990's, and led to a wave of research regarding its determinants. Although FDI began a century ago, the biggest growth has occurred in recent years. This growth resulted from several drivers/factors, particularly the more receptive attitude of governments to investment flows, the process of privatization and the growing interdependence of the world economy. In a nutshell, Exhibit 1a&b highlights advantages and disadvantages associated with Foreign Direct Investment for investment decisions.^{[1][5]}

[8][9][13]

Major FDI Location Assets by Country: Despite some common assets, such as market growth and size, other location determinants differ quite significantly by country. Responses to WIPS 2009 indicate the most favorable location assets for the 15 most attractive countries are as follows^[22] A look at top 15 countries: what make them attractive to FDI are major location assets by country? The following is the view of factors identified and presented in Table 4 that favor the recent growth of FDI:

1. Presence of suppliers, partners and value added supply chains
2. Follow competitors and gain comparative advantage. Important to have production facilities close to customer in target countries/region
3. Availability of educational and English speaking talent
4. Cost effective and skilled labor in host country
5. Size of local market, especially emerging markets with large populations
6. Access to international/regional markets via trade liberalization, trade promotion strategies/ open markets. Growth of market and prospects for

domestic demand/consumption

7. Access to natural resources and semi-finished components

8. Access to capital markets [finance]

9. Political stability Government effectiveness, administrative machinery and absorptive capacity

10. Financial incentives [Funds from local Government] and Fiscal incentives [Exemption from Taxes, Import Duties]; indirect incentives Provides land and infrastructures at less commercial prices/

11. Quality of infrastructure, stable business-friendly environment

12. Stable and business friendly environment

FDI, Globalization and Economic Growth

The boom in world-wide FDI flows constitutes a major element of globalization and economic growth. Foreign direct investment is probably one of the most significant factors leading to the globalization of the international economy. FDI inflows to the developing countries increased remarkably in the 1990s and now accounts for about 40 per cent of global FDI. The globalization of world markets has been accompanied by the rapid growth of FDI by small and medium-sized firms accompanied by an increase in entrepreneurial enterprises. However, the dominance of MNCs/TNCs point to the complementarity of trade and foreign direct investment in the context of sustainable economic growth, as seen by:^{[15][7][12][6]}

1. Multinational/Transnational companies, traditional exporters and investors, send substantial exports to their foreign facilities;
2. About 1/3 of world trade is intra-firm trade among MNCs and their affiliates established under FDI;
3. Many of the exports from parent MNC/TNC to subsidiary would not occur if overseas investment did not exist. In these cases, factor movements stimulate trade rather than substituting for it;
4. The globalization of world markets has been accompanied by the rapid growth of FDI by small and medium-sized firms and entrepreneurial enterprises in addition to traditional MNCs;
5. Globalization has advanced FDI as a strategic foreign market entry mode aiding growth
6. Globalization of the world economy has raised the vision of firms to realize the entire world as their market;
7. Beyond export-led growth, the key to sustainable economic growth is investment, which comes from: savings, retained earnings, gifts/grants/foreign aid, investments [FDI].^[14]
8. Trends are evident of TNC/MNC incorporate corporate strategies for the Green World consistent with host country policies, backed by Kyoto protocol.

LEVERAGING FDI FOR A LOW-CARBON ECONOMY IN THE NEW GREENWORLD^[6]

An important emerging area for TNCs/MNCs is investments in sustainable development and low carbon technologies in FDI decisions. These represent highly visible and increasingly important future business opportunities that also have the advantage of satisfying key stakeholders following the KYOTO protocol deliberations on sustainable development supporting publics. Foreign investment also plays a significant role in meeting the challenges of climate change mitigation by contributing the needed financial and technological resources. This requires a better integration of investment policies with the climate change framework and sustainable development strategies. (WIR2010) The message in the report by UNCTAD WIR 2010: Investing in a low-

carbon economy is consistent with findings from work on low carbon growth, which confirms that private investment will be absolutely key to achieving low carbon growth, but governments need to put in place the right policy framework and appropriate incentives to ensure this happens. As discussed earlier, TNCs/MNCs invest in foreign markets for three reasons – to serve the local market, increase efficiency, or natural resource access. [a] Market seeking FDI is driven by access to local or regional markets. Investing locally can be driven by regulations or to save on operational costs such as transportation. General Motors' investment in China is market seeking because the cars built in China are sold in China. [b] Efficiency seeking FDI is commonly described as offshoring or investing in foreign markets to take advantage of a lower cost structure. A credit card company opening a call center in India to serve U.S. customers is a form of efficiency seeking FDI. [c] Resource seeking FDI is investment focused on extracting or refining natural resources such as petroleum, natural gas, or timber Drivers and determinants of low-carbon foreign direct investment for corporate strategies of TNC/MNC operations in host countries will focus on government policies, market conditions, and cost of production and business conditions decisions to invest abroad. This includes climate change-specific factors, such as green branding strategies, regulations and pressure from consumers and investors. Foreign direct investment has a major role to play in the economic development of the host country and significantly TNC/MNC contribution loom large:^{[11][5][6][8][9][13]}

TO CONCLUDE: The evolving TNC/MNC corporate strategy universe for the new green world possesses three sets of key FDI challenges for development identified in WIR, EIU and WIP studies cited, viz: (a) to strike the right policy balance, liberalization vs. regulation; rights and obligations of the State and investors; (b) to enhance the critical interfaces between investment and development, such as those between foreign investment and poverty, and national development objectives; and (c) to ensure coherence between national and international investment policies, and between investment policies and other public policies. All this calls for a new investment development paradigm that effectively promotes sustainable development for companies/countries and citizenry alike. In the final analysis, FDI advantages outweigh disadvantages and serves as a catalyst to expand a country's competitive advantage, image, visibility, viability and attract technologies for sustained economic growth. International trade and FDI foster better bilateral and multilateral co-operation among nations, resulting in improving standards of living. FDI supported export-led projects have become a strategic international trade tools to look beyond exporting to all market entry modes to advance economic and employment opportunities. A *prime-facie* indication is that most of the successful emerging countries have adopted policies and incentives to attract MNCs/TNCs to engage in FDI flows to meet green world aspirations to foster sustained economic growth. [Note: Full-length Paper and References available at Confab]

Sustainable Development and Climate Change: A Selected Analysis

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ABSTRACT

The issues involved with sustainable development include human welfare, ecological stability, and economic prosperity. Fundamentally, sustainable development entails making strategic policy decisions for the effective and efficient use of resources for the benefit of the most constituencies. In this context, we focus on the usage of water resources, especially in China and the United States, the two largest economies in the world. Suggestions are made to achieve a sustainable world economy to prevent further climate change and to increase the efficiency of water usage.

INTRODUCTION

At the fifteenth United Nations Framework Convention on Climate Change (UNFCCC) in Copenhagen last December 2009, wealthy countries pledged to raise \$100 billion dollars over the next decade to help the developing world respond to climate change. However, very little money has been given to the developing world. Over 100 heads of state attended the conference. However, the meeting was less than successful because of the friction between rich and poor countries. For example, the wealthy countries insisted upon verifiable cuts in emissions from major developing countries like India and China (Boder, 2010). For example, China relies on coal for approximately 75% of its energy needs, but it consumes twice as much energy as it generates (State Grid Corporation of China). Back in 1999, it generated more than it consumed.

ECOLOGY AND DEVELOPMENT

As we have recently seen, energy availability may limit the ability of countries to continue their economic advancement, made critically evident recently in Japan after the earthquake and tsunami. Nuclear energy was considered their means of achieving development goals by reducing their need to import oil and coal. This and other nuclear disasters, e.g. Chernobyl and Three Miles Island, have threatened the availability of clean water. Alternatives such as natural gas hydraulic fracturing, coal mining, and off-shore oil drilling also threaten water resources. Furthermore, at present, other than wind power, alternative energy sources tend to be very costly. For example, the average cost per megawatt hour of natural gas is approximately \$60 compared to \$210 for solar power (Ball, 2011:B9).

Bradsher (2007) identifies the dilemma of increasing energy needs for development and the resulting pollution, especially in the villages of India and inner China. Alternative energy sources are being sought in both countries to satisfy increasing demand. For example, farmers in China are using cheap rooftop solar water heaters. However, the heaters need to be installed on flat concrete roofs that are less prevalent than the sloped tile roofs. Further, it was reported that China plans on deriving 10% of its electricity from renewable sources, not counting hydroelectric projects, by 2010 (Wald, 2007:C7). Ironically, meeting that goal of six gigawatts of electricity would require a two year output from all solar panel makers in the world. In India and China, biomass furnaces are being used to supplement the use of more polluting diesel and coal generators, respectively. China also has plans to open the most high-tech coal fired plant in the world in 2011, so-called Green-Gen (Osnos, 2009).

Recently, with the increase in the price of oil, there has been an increase in the demand for biofuels. This drive has caused an increase in food prices as farmers plant crops that can be used for fuels rather than food. This had become so critical that the Chinese government banned the use of grains for fuels in 2007. As a result, a plant was opened in China to convert cassava to ethanol, a root that yielded good energy returns. In 2010, 6% of all grain went into making biofuels (see Figure #1) (Rosenthal, 2011:A3).

CLIMATE CHANGE AND WATER RESOURCES

Even though China and the United States are of similar physical size, the U.S. population is 22.6% of China's (see Table 2). More critically, the U.S. has almost twice the amount of water. Measured on a per capita basis, there is .000207 square kilometers (sq. km.) versus 0.001587 sq. km. of water in China and the U.S., respectively. Admittedly, this is rough measure of availability since the water is measured by surface area and not on a cubic meter basis. An improvement on this was a study by Lawrence et al. (2002) that yields an index called the Water Poverty Index (WPI). On this WPI list the U.S. is ranked 32nd, India is 97th, and China is 103rd. A component of the WPI, the Falkenmark water stress index measures per capita water availability and considers that a per capita water availability measured by thousands of cubic meters per capita (kcm) (Falkenmark & Widstrand, 1992). The Falkenmark index in 2002 was 8.9 kcm for

the U.S., 1.9 km for India, and 2.2 km for China (please see Table 2). India (13%), China (12%) and the USA (9%) are the largest consumers of the global water resources (Hoekstra & Chapagain, 2006).

As part of the analysis undertaken by Tetra Tech (Bekke et al., 2009), for the Natural Resources Defense Council (2010), a water supply sustainability index composed of five attributes of water use and growth was developed, and used to compare impacts across regions. Those factors are: 1) projected water demand as a share of available precipitation; 2) groundwater use as a share of projected available precipitation; 3) susceptibility to drought; 4) projected increase in freshwater withdrawals; and 5) projected increase in summer water deficit.

Bekke et al. (2009) found that, under the business-as-usual scenario of demand growth, water supplies in 70% of counties in the US may be at risk to climate change, and approximately one-third of counties may be at high or extreme risk. The geographic extent of potential risk to water supplies is greatly increased when climate change is considered (see Figure #2). This calculation indicates the increase in risk that affected counties face that water demand will outstrip supplies, if no other remedial actions are taken.

CHINA AND WATER RESOURCES

An interesting construct, the water footprint shows the extent of water use in relation to consumption of people. Specifically, the four major direct factors determining the water footprint of a country are: volume of consumption (related to gross national product); consumption patterns (e.g., high versus low meat consumption); climate (growth conditions); and, agriculture practices (water use efficiency). The global average water footprint is 1240 m³/per capita/per year. However, the differences in the global water footprint among countries are large. For example, the USA has an average water footprint of 2480m³/capita/year whereas China has an average water footprint of 700m³/capita/year (Hoekstra & Chapagain, 2006). We argue that sustainable development is critical to China for the two most significant regions of economic development in China, the Pearl and Yangtze River Deltas. China's economy has been growing at 8-10% for more than a decade. Also, its trade surplus continues to rise. China's trade surplus narrowed in August of 2010 as imports picked up at a faster pace and exports slowed although not drastically (see Figure #3). The General Administration of Customs said exports were up 34.4% in August 2010 compared to the same month a year ago, slowing from July's 38.1% rise. Imports jumped 35.2%, faster than the 22.7% increase in July. China's trade surplus dropped to \$20 billion in August from an 18-month high of \$28.7 billion in the previous month. In the January to August period, exports increased 35.5% from the same period a year ago, while imports rose 45.5%. A cumulative trade surplus of \$103.9 billion

was registered (TradingEconomics.com, 2010). However, critically, air and water quality in Chinese cities are worsening. According to a survey by the Environmental Protection Administration, 38% of 585 cities enjoyed air quality that reached minimal national standards, down from 45% in a 2005 survey (French, 2007:A6).

China is emerging as the surprise leader in green technologies. The country's vast market and economies of scale are bringing down the cost of solar and wind energy; the "China price"—the combination of cheap labor and capital that revolutionized global manufacturing—is being replicated in clean technologies. China has emerged as one of the world's largest makers of wind turbines in the matter of a few years, and the country has a 30 percent share of the global market for photovoltaic solar panels used to generate electricity (Aiyar, 2010).

THE DEPLETION OF AQUIFERS

United States

Recent concerns about "peak oil," the notion that the glass of crude may be half empty, bringing with it higher prices, increased jousting with countries like China, maybe even threats to the supremacy of the sprawled-out American suburb. America is, on average, a damp nation -- the lower 48 states see 4,200 billion gallons of rainfall every day. But averages deceive; water is in short supply in the Southwest, where growth is fastest and rivers are already over-tapped. Even back East, we use so much water that supplies can run short. The Ipswich River near Boston now "runs dry about every other year or so," according to Sandra Postel, director of the Global Water Policy Project. "Why? Heavy pumping of groundwater for irrigation of big green lawns." In drought years like 1999 or 2003, Maryland, Virginia and the District have begun to fight over the Potomac - on hot summer days combining to suck up 85 percent of the river's flow.

A report by the National Academies on the Colorado River basin had recently concluded that the combination of limited Colorado River water supplies, increasing demands, warmer temperatures and the prospect of recurrent droughts "point to a future in which the potential for conflict" among those who use the river will be ever-present. Over the past few decades, the driest states in the United States have become some of our fastest-growing; meanwhile, an ongoing drought has brought the flow of the Colorado to its lowest levels since measurements at Lee's Ferry began 85 years ago. At the Senate hearing, Udall stated that the Colorado River basin is already two degrees warmer than it was in 1976 and that it is foolhardy to imagine that the next 50 years will resemble the last 50. Lake Mead, the enormous reservoir in Arizona and Nevada that supplies nearly all the water for Las Vegas, is half-empty, and statistical models indicate that it will never be full

again (Gertner, 2007). More recently, Lake Mead dropped to its lowest point since it was first filled in the 1930s (Barringer & Henriques, 2010).

Recent studies of tree rings, in which academics drill core samples from the oldest Ponderosa pines or Douglas firs they can find in order to determine moisture levels hundreds of years ago, indicate that the dry times of the 1950s were mild and brief compared with other historical droughts. The latest research effort, published in the journal *Geophysical Research Letters* in late May 2007, identified the existence of an epochal Southwestern mega-drought that, if it recurred, would prove calamitous (Gertner, 2007).

China

A century or so ago, the North China Plain was a healthy ecosystem, scientists say. Farmers digging wells could strike water within eight feet. Streams and creeks meandered through the region. Swamps, natural springs and wetlands were common. Today, the region, comparable in size to New Mexico, is parched. Roughly five-sixths of the wetlands have dried up, according to one study. Scientists say that most natural streams or creeks have disappeared. Several rivers that once were navigable are now mostly dust and brush. The largest natural freshwater lake in northern China, Lake Baiyangdian, is steadily contracting and besieged with pollution.

The causes includes misguided policies, unintended consequences, a population explosion, climate change and, most of all, relentless economic growth. In 1963, a flood paralyzed the region, prompting Mao to construct a flood-control system of dams, reservoirs and concrete spillways. Flood control improved but the ecological balance was altered as the dams began choking off rivers that once flowed eastward into the North China Plain.

The North China Plain undoubtedly needs any water it can get. An economic powerhouse with more than 200 million people, it has limited rainfall and depends on groundwater for 60 percent of its supply. Other countries, like Yemen, India, Mexico and the United States, have aquifers that are being drained to dangerously low levels. But scientists say those below the North China Plain may be drained within 30 years.

CONCLUSION

Countries must cooperate in reducing global warming as well as increasing the efficiency of water usage. Unfortunately, the recent meeting in Cancun in late

2010 did not result in any significant agreement among participating countries. Peter Gleick, head of the Pacific Institute, a nonprofit institution based in Oakland, California, suggests we can adapt to a drier future depends if we can rethink the functions, and value, of fresh water. However, how we use our water is considerably more complex than it appears. There are consumptive and non-consumptive uses of water. Consumptive use, roughly speaking, refers to water taken from a reservoir that cannot be recovered. In agriculture, the vast majority of water use is consumptive, because it evaporates or transpires from crops into the atmosphere. Evaporated water may fall as rain 1,000 miles away but it is gone locally. A similar consumptive process characterizes the water we put on our lawns or gardens: it mostly disappears. Meanwhile, most of the water used by metropolitan areas is non-consumptive. Some short term solutions may include increasing water use efficiency, increased water recycling, enhancing groundwater recharge, rainwater harvesting, and inter-basin transfers to make up for water deficits (NRDC, 2010).

Arguably, there are immense opportunities to reduce both consumptive and non-consumptive demand for water. These include installing more low-flow home appliances, adopting more efficient irrigation methods, "green architecture" such as agriculture on roofs in cities, and recycling of rainwater. Economic tools have also reduced consumption by making water more expensive, i.e. the more you use, the higher your per-gallon rate. The United States uses less water than it did 25 years ago.

While water management and climate change adaptation plans will be essential to lessen the impacts, they cannot be expected to counter the effects of a warming environment. Without radically reducing the use of fossil fuels, world temperatures may rise 2.4 to 6.4 degrees centigrade by 2100. If climate warming continues to increase, we can expect the water shortages to increase with it.

[References, tables, & figures available upon request]

Environmental Management Departments and Environmental and Economic Performances in the Small- and Medium-Sized Firms

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ABSTRACT

The corporate environmental management adoption is to harmonize an environmental strategy with other strategic issues, such as corporate goals. However, small- and medium-sized enterprises (SMEs) do not sufficiently deal with the environmental management issues because of their lack of resources. This study aims to define the underlying factors of the environmental management systems in the firms' supply chains. It also investigates whether the presence of an environmental management department helps SMEs increase their operational efficiency, relationship with the business partners, and the environmental performance.

INTRODUCTION

This study presents that how strong policies and institutional frameworks can promote environmental objectives. Business organizations are facing environmental challenges in the globalized world. The challenges may look bigger to SME firms. This study, however, demonstrates that they can meet the challenges by adopting proper business philosophy and practices. Especially, our empirical study shows that the environmental management department (or team) plays a critical role more effectively adopting green supply chain management (GSCM) practice and accomplish greater environmental and economic performances.

RESEARCH FRAMEWORK AND HYPOTHESES

Corporate Environmental Management and the Firm's Competitiveness

Madsen and Ulhøi [10] argue that corporate adoption of environmental management is to harmonize an environmental strategy with other strategic issues such as corporate goals and product positioning. They also present that the result of proactive pollution prevention programs could be cost-saving in production and improvements in product values or the brand image of the company. This will in turn make the company more competitive in the market [13].

Khanna and Anton [8] believe that corporate environmental management is a self-regulatory business approach not only to protect the environment, but also to strategically integrate environmental considerations into corporate production decisions. This study is based on the premise that a major part of the corporate environmental management initiative is to implement green management systems, such as ISO 14001 or Eco-Management and Audit Scheme. The test results of Khanna and Anton [8] support the argument of Madsen and Ulhøi [10] that proactive environmental management is more a cost saving proposition in the long run.

In fact, Companies adopting environmental management or GSCM practice are viewed as socially responsible firms [3][4]. Many studies have asserted that corporate social responsibility (CSR) and the firm's business performance are positively correlated. According to McGuire, Sundgren, and Schneeweis [11], CSR is positively related to a firm's business performance, such as stock market returns and accounting-based measures. That result may be because socially responsible corporations can stand in a better economic position than socially irresponsible ones.

Green Supply Chain Management Practices

Zhu and Sarkis [15] developed and tested a measurement model for GSCM practice implementation. They found five underlying constructs which show the dimensions of GSCM practices. However, we selected only four dimensions of GSCM practices – internal environmental management (IEM), green purchasing (GP), cooperation with customer (CC), and eco-design (ECO). We utilize additional items that are found in other studies [6][12][16].

Environmental Management Department as a Moderator

It is known that most of the suppliers are SMEs [9]. Also, these SMEs often do not have proactive environmental strategy, lack environmental awareness, and have inappropriate environmental management techniques [14]. Moreover, they cannot sufficiently deal with the environmental management issues. This is because they often lack human resources. However, the existence of the environmental management department helps these SMEs improve business performance.

The prior research has discussed the effects and benefits of teams or departments on the firm's performance [2]. Jones and Kato [7] argue that teams help employees increase their understanding of the importance of quality for corporate success and make them more devoted to what they attempt to accomplish. Their test results, moreover, support their assertion with improvements in productivity and quality. Auh and Menguc [1] contend that inter-functional coordination, as internal social capital of an organization, improves communication and information sharing to achieve the organizational objectives. Based on these arguments and the prior studies, we present our research model, as shown in Figure 1, and posit eight hypotheses:

Hypothesis 1: *The positive relationship between the implementation of GSCM practices and the operational outcome is stronger in firms with the environmental management department than in firms without the environmental management department.*

Hypothesis 2: *The positive relationship between the implementation of GSCM practices and the relational outcome is stronger in firms with the environmental management department than in firms without the environmental management department.*

Hypothesis 3: *The positive relationship between the implementation of GSCM practices and the environmental performance is stronger in firms with the environmental management department than in firms without the environmental management department.*

Hypothesis 4: *The positive relationship between the implementation of GSCM practices and the economic performance is stronger in firms with the environmental management department than in firms without the environmental management department.*

Hypothesis 5: *The positive relationship between the operational outcome and the relational outcome is stronger in firms with the environmental management department than in firms without the environmental management department.*

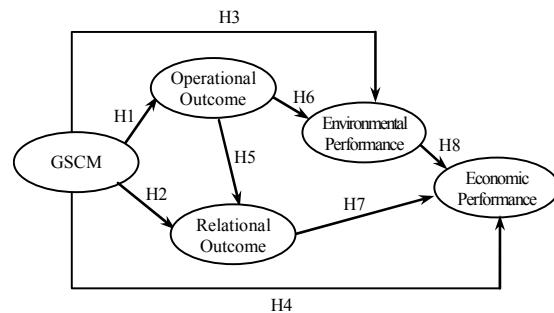
Hypothesis 6: *The positive relationship between the operational outcome and the environmental performance is stronger in firms with the environmental management department than in firms without the environmental management department.*

Hypothesis 7: *The positive relationship between the relational outcome and the economic performance is stronger in firms with the environmental management department than in firms without the environmental management department.*

Hypothesis 8: *The positive relationship between the environmental performance and the economic performance is stronger in firms with the environmental management*

department than in firms without the environmental management department.

FIGURE 1 Research Model



DATA COLLECTION

The questionnaire was administered to a subset of the population of interest – operations/ supply chain managers of small- and medium-sized electronics companies in Korea. First, we called the contact numbers of 756 companies, with more than 20 employees and less than 500, to ask whether they were adopting GSCM practices. Then, the questionnaire was sent to the operations/supply chain managers of 223 SME suppliers that were willing to participate in the survey and all of them mailed the questionnaire back to the researchers.

RESULTS

Analysis of Reliability and Validity

We tested the measurement properties of the constructs using reliability and item-to-total correlation analysis, followed by confirmatory factor analysis (CFA). Correlations for the variables used in this study are presented in Table 1. Based on the covariance matrix for the variables, the standardized factor loadings and t-values were obtained.

As reported in Table 2, both standardized loadings ($>.60$) and t-values ($p < .01$) for the individual paths showed that all indicators are significantly related to their underlying theoretical constructs. In addition, all of the average variance extracted (AVE) estimates of constructs were greater than the cutoff point ($.5$) [5]. These tests, thus, exhibit convergent validity.

TABLE 1 Correlation Between Theoretical Constructs

Factors	IEM	GP	CC	ECO	ES	OO	RO	EP	ECP
Internal Environmental Management (IEM)	1.00								
Green Purchasing (GP)	.58	1.00							
Cooperation with Customers (CC)	.52	.66	1.00						

Eco-Design (ECO)	.53	.47	.44	1.00					
Employees' Job Satisfaction (ES)	.61	.47	.42	.43	1.00				
Operational Outcome (OO)	.49	.31	.26	.40	.34	1.00			
Relational Outcome (RO)	.56	.44	.40	.33	.46	.65	1.00		
Environmental Performance (EP)	.49	.46	.38	.43	.40	.63	.60	1.00	
Economic Performance (ECP)	.46	.32	.35	.44	.48	.65	.62	.57	1.00

TABLE 2 Measurement Model Results

Factors	Item No.	Standardized Loading	t-Value
Internal Environmental Management	IEM1	.711	18.436
	IEM2	.646	14.618
	IEM3	.860	33.562
	IEM4	.790	24.997
	IEM5	.804	26.507
Green Purchasing	GP1	.790	26.561
	GP2	.743	21.868
	GP3	.832	34.660
	GP4	.919	52.660
Cooperation with Customers	CC1	.749	23.340
	CC2	.892	50.952
	CC3	.898	54.296
	CC4	.911	59.201
Eco-design	ECO1	.711	17.686
	ECO2	.708	17.541
	ECO3	.625	13.110
	ECO4	.715	18.174
	ECO5	.838	26.756
Employee Satisfaction	ES1	.725	20.391
	ES2	.787	26.461
	ES3	.860	39.121
	ES4	.844	36.394
	ES5	.859	38.219
Operational Outcome	OO1	.818	32.862
	OO2	.809	30.722
	OO3	.926	68.002
	OO4	.870	44.218
	OO5	.833	37.955
	OO6	.776	26.215
Relational Outcome	RO1	.854	44.512
	RO2	.856	45.442
	RO3	.874	51.717
	RO4	.948	124.518
	RO5	.972	197.448
	RO6	.966	171.027
Environmental Performance	EP1	.903	67.190
	EP2	.873	50.620
	EP3	.964	150.569
	EP4	.972	170.676
	EP5	.862	47.449
Economic Performance	ECP1	.761	24.913
	ECP2	.772	26.222
	ECP3	.941	81.103
	ECP4	.934	76.904

Cronbach's α values for all factors were greater than .85. All factors showed the composite reliabilities (CRs) greater than .84, which ensure the construct reliability of all constructs.

REFERENCES

- [1] Auh, S., & Menguc, B. 2005. Top management team diversity and innovativeness: the moderating role of interfunctional coordination. *Industrial Marketing Management*, 34: 249-261.

- [2] Banker, R., Field, J., Schroeder, R., & Sinha, K. 1996. Impact of work teams on manufacturing performance: a longitudinal field study. *Academy of Management Journal*, 39(4): 867-890.
- [3] Borger, F. & Kruglianskas, I. 2006. Corporate social responsibility and environmental and technological innovation performance: case studies of Brazilian companies. *International Journal of Technology*, 6(4): 399-412.
- [4] Cruz, L., & Pedrozo, E. 2009. Corporate social responsibility and green management. *Management Decision*, 47(7): 1174-1199.
- [5] Fornell, C., & Larcker, D. 1981. Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 28: 39-50.
- [6] Homburg, C., & Stock, R. 2004. The link between salespeople's job satisfaction and customer satisfaction in a business-to-business context: a dyadic analysis. *Journal of the Academy of Marketing Science*, 32(2): 144-158.
- [7] Jones, D., & Kato, T. 2011. The impact of teams on output, quality, and downtime: an empirical analysis using individual panel data. *Industrial and Labor Relations Review*, 64(2): 215-240.
- [8] Khanna, M., & Anton, W. 2002. Corporate environmental management: regulatory and market-based incentives. *Land Economics*, 78(4): 539-558.
- [9] Lee, S. 2008. Drivers for the participation of small and medium-sized suppliers in green supply chain initiatives. *Supply Chain Management: An International Journal*, 13(3): 185-198.
- [10] Madsen, H., & Ulhøi, J. 2003. Have trends in corporate environmental management influenced companies' competitiveness? *Greener Management International*, 44: 75-88.
- [11] McGuire, J., Sundgren, A., & Schneeweis, T. 1988. Corporate social responsibility and firm business performance. *Academy of Management Journal*, 31(4): 854-872.
- [12] Paulraj, A., Lado, A., & Chen, I. 2008. Inter-organizational communication as a relational competency: antecedents and performance outcomes in collaborative buyer-supplier relationships. *Journal of Operations Management*, 26: 45-64.
- [13] Porter, M., & van der Linde, C. 1995. Green and competitive: Ending the stalemate. *Harvard Business Review*, 73(5): 120-33.
- [14] Shearlock, C., Hooper, P., & Millington, S. 2000. Environmental improvement in small and medium-sized enterprises: a role for the business-support network. *Greener Management International*, 30: 50-60.
- [15] Zhu, Q., & Sarkis, J. 2006. The moderating effects of institutional pressures on emergent green supply chain practices and performance. *International Journal of Production Research*, 45(18/19): 4333-4355.
- [16] Zhou, K., Ki, J., Zhou, N., & Su, C. 2008. Market orientation, job satisfaction, product quality, and firm performance: evidence from China. *Strategic Management Journal*, 29(9): 985-1000.

Airport Punctuality Analysis Using Multi-Dimensional Visual Analysis Method

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ABSTRACT

Punctuality is one of the key performance indicators of the airline industry and an important service differentiator especially for valuable high-yield customers. In addition, improvement on time performance can help achieve cost saving. Therefore the efficient management of punctuality is crucial for the industry. This study overcomes the limitations of existing analysis on flight punctuality and develops a multi-dimensional model for airport punctuality analysis. In addition, visual representations of various analyses are also proposed in the study. Actual flight data was collected from the website of Incheon international airport, Korea. By using the visual and multi-dimensional analysis method, the study discovered new and valuable patterns of the punctuality that could provide insights to airport administrators.

INTRODUCTION

One of the most important things that can earn trust from passengers is by keeping the announced time. It is called flight punctuality. Maintenance of aircraft, airport weather conditions, efficiency of operating process, security of taxiway and airport facilities and other factors will affect flight punctuality. It is indeed used to indicate operation quality and capacity of airports and airlines [1][2][4]. Airports analyze state of punctuality of each airline quarterly and publish the statistics reports of the flight delay [5].

But this analysis has limitations. First, various factors affecting punctuality are not reflected. Second, the method of creating and collecting data has not been presented. Last, the existing analyzes are a simple statistical reports so the airport operation managers cannot perform various visual analysis by themselves. To overcome the limitations of current analysis on flight punctuality, a multi-dimensional model is implemented and a broad range of data visualization is proposed.

In this study, a data-centric approach mixed with a user-centric method is used to construct the final prototype [3]. First, the arrival and departure data of passenger flight at Incheon international airport was collected and the punctuality indicators used at the airport are added. Second,

this prototype (data mart and analytic screens) was sent to the airport managers to get some feedback and enhancements were made on initial prototype based on the feedback.

A DATA MART FOR PUNCTUALITY ANALYSIS

Source data

For this research, the passenger flight data at Incheon international airport was collected from the airport's website. All departure and arrival data from May 19 to June 19 of the year 2010 is stored in the data mart. The basic information of the data is shown in Table 1. Incheon international airport has two terminals with 150 boarding gates but about half of the gates are being used. The airport hosts 55 airlines and connects to 132 cities in the world. The total number of flights during the one month period was 15,588.

Table 1 Basic information of Incheon airport flights

Division	Contents
Time	2010-05-19~2010-06-19
Number of airlines	55
Flight cities	132
Flight status	Arrived, Departed, Canceled
Terminal	2
Boarding gates	78
Exit gate	6
Number of flights	15,588

The data items of the source data are airline, flight number, scheduled time, actual time, flight status, and gate. In order to perform detailed and visual analysis, new fields such as the name of airline, the country of airline, the city and country of the airport were added. Also, the secondary data such as the longitude and latitude of each airport, and the coordinates of each gate at the Incheon airport were added. A series of preprocessing work was implemented to make the data mart.

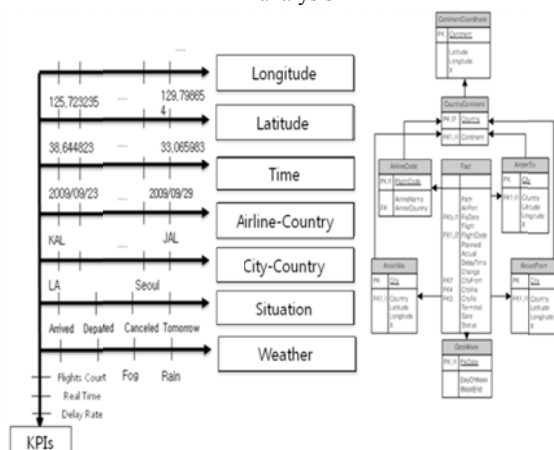
Multi-dimensional modeling

In order to analyze the airport punctuality in various perspectives, a logical structure, called multi-dimensional model, is designed and shown in Figure 2 []. This dimensional model has seven dimensions and three measures. Since weather is such an important factor in flight punctuality

that local Incheon weather information was collected from the website of the Korea Meteorological Administration and an extra weather dimension is added to the model.

Using a map for the visual representation of data in users' thought process is helpful. Visual analysis of the flight data of each city, along with the latitude and longitude coordinates of each row and column coordinates are indicated.

Figure 2 Multi-dimensional model for flight punctuality analysis



ANALYSIS AND DISSCUSSION

In order to visually analyze the Airport punctuality data mart, a business intelligence tool, Tableau 5.0, was used [6]. The flight cities of Incheon international airport are shown in Figure 3. Through the process of scenarios, the total delay situation will be identified, and the delay factors can be found. Other factors will be examined. Through additional analysis other causes of delay will be confirmed.

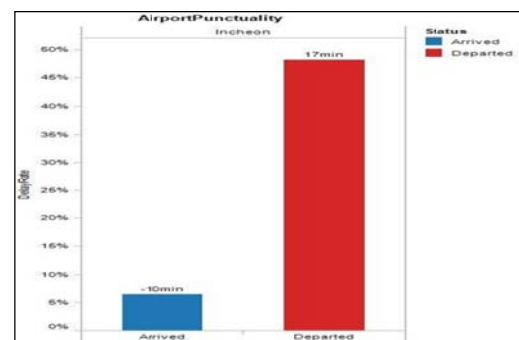
Figure 3 Flight cities of Incheon international airport



Figure 4 represents the average delay rates of all departure and arrival flights at the Incheon airport. According to this result, the departing flights from the Incheon airport during

the observed period show higher average delay rates than the arriving flights. The average delay time for departure is 17 minutes and the average delay rate is 47 percent. However, the average delay time for arrival is minus 10 minutes, which means most flights arrive early than scheduled time.

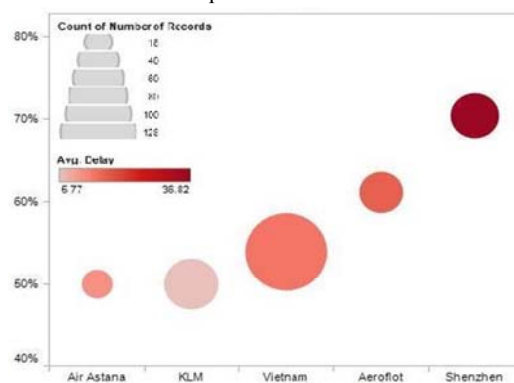
Figure 4 Departure and arrival delays rates



In order to investigate the cause of this problem, the drill-down by airline analysis was carried out. Figure 5 is the analysis of the flights situation that the departure delays rate was more than 40 percent during the one month period. The size of circle means the number of flights of each airline, and the depth of color means the latency.

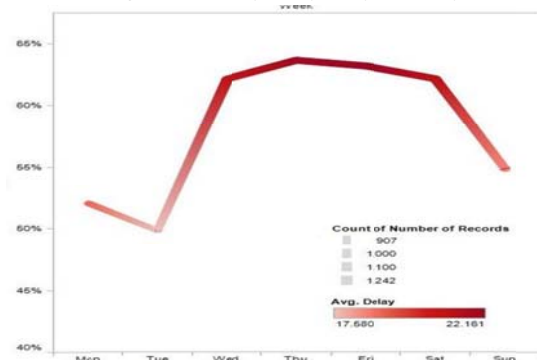
Therefore, Figure 5 can explain the operational situation for some airlines; (1) Shenzhen Airlines was the worst airline with departure delay rate of 70%, (2) Vietnam Airline delay rate was more than 50 percent and the number of flights was the largest, (3) Shenzhen Airlines had the longest delay time of 36 minutes. According to this result, passengers of Shenzhen Airlines waited longer than that of other airlines, and the airline with the largest number of passengers who suffered from the departure delay is Vietnam Airlines.

Figure 5 Airlines with the departure delay rate of 40 percent or above



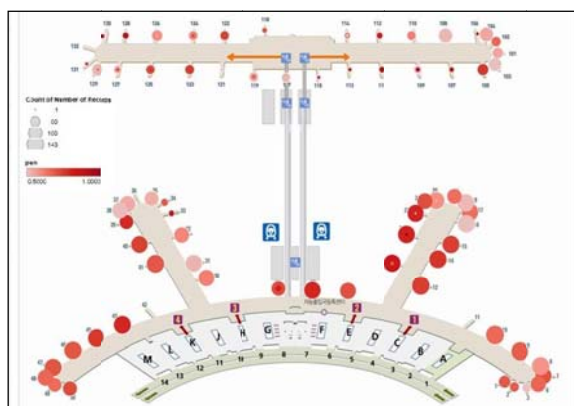
The latency analysis by weekday is shown in Figure 6. The thickness of line represents the number of flights and the depth of color indicates the delay time. Departure delay rate was higher from Wednesday to Saturday. Sunday, Monday and Tuesday was relatively low.

Figure 6 Latency analysis by weekday



In addition, the congestion of the passengers who used the airport can be viewed by the congestion in the waiting room or the gate. Figure 7 is a sample view of the departure gates analysis at Incheon airport.

Figure 7 Analysis result of the airport departure gates



CONCLUSION

This study overcomes the limitations of the existing punctuality analysis methods, and suggests a new methodology that may reflect the various effects influencing factors on punctuality. The possibility of the operational managers desire to use multi-dimensional visual analysis is presented. The actual air traffic data collection, analysis and information of Incheon International Airport collection, analysis and diversified diverse information so far failed to identify the patterns that were detected.

The purpose of the study is to implement the data mart, analyze the factors of punctuality and suggest the possibility

of the visual data analysis. Although there are traditional statistical methods, the new method of discovering information from a different perspective proposed in this study is more meaningful and accurate.

The limitation of this study is that the amount of flight data used in the prototype system is small. In the near future, the developed prototype will be presented to the person in charge of flight analysis at the Incheon airport. Longer term flight data could be provided by the airport authority. More detailed analysis such as seasonal changes will be available if the datamart is equipped with yearly data.

REFERENCES

- [1] Lee, Y.H., KIM, E.J., & Kim, D.H. Operational Efficiency Analysis Using DEA Approach for the Major Airports in Asia. *Journal of Korean Society of Transportation*, 2004, 22(4), 35-61.
- [2] Lee, J.H. A Study on the Improvement Strategy of Rail Freight Transportation in Korea. *Journal of Korea Logistics Research Association*, 2006, 16(4), 87-112.
- [3] List, B., Bruckner, R.M., Machaczek, K., & Schiefer, J. A Comparison of Data Warehouse Development Methodologies: Case Study of the Process Warehouse. *DEXA 2002 Proceedings*, 203-215.
- [4] Markovic, D., Hauf, D., Rohner, P., & Spehr, U. A Statistical Study of the Weather Impact on Punctuality at Frankfurt Airport. *Royal Meteorological Society*, 2008, 15(2), 293-303.
- [5] www.airport.kr
- [6] www.tableausoftware.com

A Study on the Service Factors that Affect the Airline Customer Satisfaction -Ground Process Factors, In-Flight Human Factors, In-Flight Entertainment Factor

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Abstract

As the number of passengers for aircraft increase, the number of customers with a variety of experience wants to receive differentiated service that meets their personality and their needs rather than the uniform and inflexible service.

Therefore, this study is to divide the airline service into three; ground process, in-flight service and in-flight entertainment, to find the factor that mostly effect the customer satisfaction and to establish operation plan for future airline companies.

I. Introduction

The market for airline industry in the 21st century has become very wide due to various effects including development of global economy and the efforts to establish differentiated strategy to provide satisfaction to the diverse needs of the customers has been continued. The airline companies are putting their efforts in all areas including air travel schedule, flight routes, booking facilities, and transit system. In addition, they are also working to provide unique and differentiated service, create diversity with in-flight meals, and improve the human factors to provide different experience and satisfaction to the customer.

II. Literature Review

2.1 Airline service

First, the airline service is intangibility dominated service product like other service products. Therefore, the customer cannot recognize the quality of the airline service until they ride the airplane, therefore, the airline company is a service product where abstract and intangibility is dominated.

Second, the production and consumption of tangible service should always be done in different place and time with sustainability, which has shape and value as a customer for certain period of time.

Third, the productivity of airline service is achieved when the customer reserve the seat and board on the plane.

Fourth, the customer only pays for the air fair for using the airline company's facility and does not require any transfer of ownership as they received the convenience of air transportation.

2.2 Customer Satisfaction

From a study on the service quality of flight attendants (2004), Jung-hye Han used the measuring tool SERVQUAL and found that the 4 factors among service quality of flight attendants, except assurance, is all effecting customer satisfaction and they are tangibles, reliability, responsiveness and empathy. From a study on quality of service and customer's loyalty in airplane industry,

Chang-kwon Jang (2006) said, the service process factor of airline companies could affect the customer satisfaction. Especially, the reservation service, ticketing, and boarding process service required fast and accurate service and it critically affected the customer satisfaction.

Ki-su Choi (2007) said the satisfaction on the expectation of the AVOD system service, the latest in-flight entertainment system, was low and the expectation and performance on satisfaction was higher than the he expectation and performance on quality, therefore, this proved that the expectation on quality was lower than the quality performance.

Si-won Lee (2005) said the satisfaction of in-flight entertainment has significant effect on positive words and repurchase intention.

III. Research Methodology

3.1. Data Collection

In order to analyze the factors that affect the airline customer satisfaction, we've distributed 270 questionnaires to the airline customers from October to December 2010 and we've collected 247 copies,

which is 91% of recovery rate. But, Finally we've only used 25 copies of the valid questionnaires.

IV. Data Analysis

4.1. Demographic Analysis

As shown in 'Table 1', the number of international airline passengers that effectively responded to the survey is 205 people. Among them, 116 were male (56.6%), and people in their 30s were the most, which was 86 people (42.0%), and travel was the highest for the purpose of travel, which was 143 (69.8%).

Table 1. Statistics of population distribution

Item		No.	%
Gender	Male	116	56.6
	Female	89	43.3
	20	42	20.5
	30	86	42.0
	40	39	19.0
	50	50	6.3
Occupation	Student	15	7.3
	Businessman	74	36.1
	Housewife	9	4.4
	Professions	36	17.6
	Self-employed	34	16.6
	Government	2	1.0
Purpose	Other	35	17.1
	Study	2	1.0
	Travel	143	69.8
	Business	47	22.9
	Relatives visit	3	1.5
International flight time that you just had	Other	10	4.9
	Within 2 hours	34	16.6
	2-5 hours	75	36.6
	5-8 hours	53	25.9
	8-11 hours	24	11.7
	More than 11 hours	19	9.3

4.2. Factor Analysis and Multiple Regressions

The result of Ground Process Factor Analysis for Airline Service Quality shows 4 factors as shown on Table 2 and it is boarding procedure, flight operation, security and baggage handling and booking procedure.

Table 2 Ground Process Factor Analysis

Factors	Item	Factor loading	Cumulative dispersion ratio	Reliability analysis
Boarding procedure	Ease of boarding procedure counter location	.784	21.327	.873
	Friendly staffs at the boarding procedure counter	.739		
	Ease of gate location	.729		
	Accurate and fast work process of boarding counter	.698		

Flight operation	Facilities and atmosphere of the boarding counter	.697	41.479	.799
	Accurate customer information record	.609		
	On-time departure	.856		
	Accuracy of the boarding	.734		
	Accuracy of flight information during the flight	.691		
Security and baggage handling	On-time arrival of	.596	55.152	.798
	Exact arrival of the baggage	.813		
	Baggage handling procedure	.808		
	Safe handling of baggage	.669		
Booking procedure	Comfort of flight	.510	68.588	.767
	Ease of changing the reservation	.763		
	Ease of booking and buying the ticket	.697		
	Usefulness of available facilities	.695		
	Ease of flight schedule	.638		

Table 3 In-flight Human Service Factor Analysis

Factors	Item	Factor loading	Cumulative dispersion ratio	Reliability analysis
Responsiveness	Empathy with the customer's mind	.788	20.098	.917
	Interest in customer	.758		
	Care for customers	.726		
	Flexible response to customer's need	.710		
	Pre-information about the provided services	.655		
Reliability	Accurate provision of promised service	.761	34.102	.913
	Immediate response to the customers' request	.755		
	Perform the promises	.709		
	Quickly provision of customer's service request	.707		
	Provision of service on time	.696		
	Efforts to resolve customer issue	.574		
Assurance	Perform the service within the safety regulation	.747	47.099	.852
	Sufficient knowledge about business process	.715		
	Trust on the provided service	.713		
Tangible	Easy to find flight attendants	.772	60.055	.815
	Uniform and clothing of the flight attendants	.720		
	Hygiene of food and beverages provided by the flight attendants	.666		
	Appearance of the flight attendants	.609		

The result of 22 item survey on In-flight Entertainment Service Factor Analysis for Airline Service Quality shows 4 factors as shown on Table 4

and it is responsiveness, tangibility and configuration, trust assurance and empathy.

Table 4 In-flight Entertainment Factor Analysis

Factors	Item	Factor loading	Cumulative dispersion ratio	Reliability analysis
Responsiveness	Promptness of entertainment service	.814	18.970	.892
	Immediate response when a problem occur on entertainment service	.811		
	Prior information related to the entertainment service	.784		
	Efforts for smooth assistant when a problem occur on entertainment service	.720		
	Immediate response when a request related to entertainment service occur	.710		
Tangibility and configuration	Appropriateness of the monitor size	.815	37.427	.891
	Good position of the monitor	.792		
	Excellent shape of headphone and input device	.695		
	Timeliness of entertainment	.649		
	A variety of configuration for all age range	.599		
Trust assurance	Production of trustable program brochure	.723	55.331	.888
	Trouble-free operation of input devices	.694		
	Reliability on information about weather and local area	.689		
	Program according to the information brochure	.615		
	Reliable information program from the flight attendants	.594		
Empathy	Accurate information about flight provided on the program	.570	65.685	.753
	Other flight service that is not interfered	.728		
	A variety of configuration based on customer's interest	.706		
	Entertainment service that does not interfere with the individual's relaxation	.671		

The result of customer satisfaction shows only one factor as shown below. It is Overall satisfaction on the airline's service, Satisfaction on the airline's service, Satisfaction on the airline's entertainment service, Satisfaction on the airline's group process service.

4.3 Regression Analysis Result

The result of Regression Analysis on Ground Process, which effects the satisfaction of international airline passengers, is as shown on Table 6.

Table 6 Customer Satisfaction Factor Analysis

Variable	Un-	Standardi	t	Sig
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	standardized coefficient		zed coefficient		
	B	Std Error	Beta		
Constant	1.543 E-16	.042		.000	1.000
Boarding procedure on ground	.354	.052	.354	6.821	.000
Trust and assurance on entertainment service	.195	.052	.195	3.765	.000
Tangibility and configuration on entertainment service	.157	.048	.157	3.308	.000
Safety on ground and baggage handling	.193	.048	.193	4.005	.000
Booking process on the ground	.173	.047	.173	3.698	.000
Tangibility of flight attendants	.140	.046	.140	3.040	.000
Reliability of flight attendants	.136	.046	.136	2.964	.000
Responsiveness of flight attendants	.174	.049	.176	3.508	.000
Assurance of flight attendants	.104	.045	.104	2.320	.000

R²= .631 F=39,700 Sig F=.000

V. Conclusions and Implications

This proves that the airline companies should provide the convenience of operation in the process rather than the human service to provide more satisfaction to the customers. This result seems that the customers prefer to spend their time alone in the flight and use the programs within the flight rather than relying on the human service as they are more accustomed to the technical services.

References

- [1] Kim, Y.T., & Suh, C.J. A Study on the Factors of Customer Satisfaction in Service Company on Service Process Matrix, 2000. *Journal of the Korea Service Management Society*, 6(1), 85-101
- [2] Ko, D.S. (A) study on the impact of service quality of airline on customer loyalty, 2005. Thesis, *Tamna University*, 1-89
- [3] Han, J.H. (A) study on the cabin service quality for customer loyalty, 2005. Thesis, *Kyonggi University*, 1-74
- [4] Ok, D.Y. A study of the influence of in-flight entertainment system on customer satisfaction in airline industry, 2009. Thesis, *Korea Aerospace University*, 1-65
- [5] Jang, C.K. A Study on the Effects of Service Process Factors in Customer Satisfaction, 2005. Thesis, *Kyonggi University*, 1-98
- [6] Choi, G.S. A research on Quality of On-Plane Service and Customers' Satisfaction : Focusing on the AVOD entertainment system, 2007. Thesis, *Korea Aerospace University*, 1-55
- [7] Parasuraman, A., Zeithmal, V. A., & Berry, L.L. A Conceptual Model of Service Quality and Its Implications for Future Research, 1985. *Journal of Marketing*, 19(3), 111-124
- [8] Zins, H. Andreas. Antecedents of Satisfaction and Customer Loyalty in the Commercial Airline Industry, 1998. *Proceedings of the Annual Conference European Marketing Academy*, 3, 327-341

Increasing Instructor Awareness in the Global Classroom: Results from a Survey Technique

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INTRODUCTION

College professors from the West are increasingly likely to teach in foreign countries and in international classroom settings where students come from many different cultures. Several researchers have discussed techniques for improving the learning environment across nationalities and cultures. This paper focuses on the need for professors teaching internationally to ethnically similar students of a single nationality to be aware of important differences that may still exist between sub-groups based on socio-demographic background.

The results in this paper are elicited from two surveys. Respondents in both surveys consist of students who are roughly the same age, who are from the same country, South Korea, and who have the same first language, Korean. Both groups are taking business courses during the same term at Chonbuk National University. The primary difference between the two groups is that one group, when given a choice between taking an English-language or Korean-language survey, chooses English. The other chooses Korean. These two groups, which are similar in many ways, have significant differences in worldview which might affect their reactions to different economic assumptions and styles of business education. We suggest a simple technique for improving teaching in these settings.

QUANTITATIVE RESULTS OF THE SURVEY

Respondents come from nine different provinces and cities, but 50% come from Jeollabuk Do, where Chonbuk National University is located. Close to half of the respondents do not identify themselves as members of a religion. However, 31% are Christian and 17.8% are Buddhist. Compared to the Korean-language respondents, the English-language respondents are more likely to be Christian (34.0% vs. 27.0%) and less likely to be Buddhist (13.2% vs. 22.9%).

The Korean-language respondents are roughly half female and half male. Respondents are on average about 22 years old. Respondents to both surveys are most often business majors, but the English-language sample has a greater variety of majors.

The fathers of respondents are most likely to have careers in business. Students speaking English are likely to have fathers in either public service or

education, while students speaking Korean are more likely to have fathers in farming. The mothers of both English-language and Korean-language respondents are most likely to be homemakers. However, when comparing the non-homemaker mothers of both groups the Korean-language respondents are more likely to be in business, and the non-homemaker mothers of English-language respondents are more likely to work in education. Korean-language respondents have an average household size of 4.5 people, and English-language respondents have an average household size of 4 people.

Around 9% of the English-language respondents and 5% of the Korean-language respondents have a job or internship. Korean-language respondents all work at clothing stores and coffee shops. English-language students have similar jobs, except for those who work tutoring English. Roughly 60% of the survey respondents have been outside of South Korea. The Korean-language respondents most often visit Japan, China, and the United States, in that order. The English-language respondents, who are slightly more likely to have traveled abroad, most often visit Japan, the United States, and Canada, in that order.

Respondents in both surveys expect to be married at age 29. Female respondents expect to be married at a younger age than male respondents. The gap for expected age at marriage between males and females is 1.2 years for English-language respondents, and 0.5 years for Korean-language respondents. English-language respondents are more likely than Korean-language respondents to be willing to marry someone of a different religion, from a different province, or from abroad. All respondents want at least one child in the future. Korean-language respondents are more likely than English-language respondents to want to have more than two children.

While 82.1% of the Korean-language respondents expect to have a higher standard of living than their parents, the English-language respondents are even more optimistic, with 94.6% of respondents expecting a higher standard of living than their parents. Respondents in both surveys expect on average to retire at age 55. A sizable majority of respondents in both surveys are willing to find work in a foreign country. However, the English-language

respondents would most like to be working in a foreign country in ten years. Only around eight percent of the Korean-language respondents would prefer to be working abroad in 10 years. Students who state they were willing to work abroad are asked to list the countries in which they would most like to work. Respondents in both surveys list the United States, Canada, and Australia the most often.

Respondents in both surveys believe that it is important to have a socially responsible career. Students are asked whether it is better to have a well paid but unexciting job or to have an exciting but average paying job. The English-language respondents prefer an exciting but average paying job by a factor of around four to one. The Korean-language respondents prefer the same option by a factor of only around three to one.

Respondents considered parental and familial influence on decisions concerning choices of career, where to live after graduating, and spouse. Compared to English-language respondents, Korean-language respondents feel less familial pressure concerning where to live. When it comes to choosing a spouse, the ratio of Korean-language students stating that parents have a great deal of influence to those stating that parents have little or no influence (1.05) is over two times greater than the same ratio measured for English-language students (0.50).

English-language respondents believe that internationalization and acceptance of other cultures has been the best cultural change. However, Korean-language respondents believe that the move to a digital culture and the advent of modern communication technology is the best cultural change. Respondents from both surveys believe the worst cultural changes have been individualism with a loss of civility and family values, and the loss of tradition and the worship of foreign culture and products. Respondents from both surveys agree that unemployment and reunification with North Korea are the most important problems facing their country.

Korean-language students are more likely than English-language respondents to believe that all countries are friends of South Korea. Respondents in both surveys agree that the USA, Turkey, and China are South Korea's friends and that Japan, China and North Korea are the unhappiest with South Korea's success. It seems the students have mixed views about the relationship between China and South Korea.

Respondents were asked "Are you optimistic, pessimistic or neutral in your opinion of the world's political and economic future?" Respondents in both surveys are more likely to be neutral, but English-language respondents (44.6% optimistic and 8% pessimistic) are more optimistic than Korean-language respondents (18% optimistic and 20.5% pessimistic).

A DISCUSSION OF OPEN-ENDED RESPONSES

In this section the quantitative results are interpreted and discussed, while reviewing responses to several open ended questions.

Compared to Korean-language students, English-language students are more willing to live overseas for

an extended period of time. However, while open ended responses show most Korean-language students (approximately 79%) do not want to stay in their hometown and would rather live elsewhere in South Korea, fewer English-language students (approximately 40%) want to live somewhere other than their hometown if they live in South Korea. Perhaps, English-language students not only have more opportunities abroad through their interactions with English speaking foreign instructors, but also can find better career and job opportunities locally. Korean-language students may have a more difficult time in the poor economic environment and job situation in Jeollabuk Do province, where most of them were born. In terms of career plans, English-language students want to be bankers, international traders, business managers, public officials, and medical doctors. On the other hand, although some of the Korean-language students want to be professionals such as managers in large corporations, most want to be office workers, trading agents, and tellers. The career choices of Korean-language students may be based on their parents' occupations and financial well-being. The parents of English-language students may be from higher economic classes, pursue loftier careers, and have better financial situations.

Both English-language and Korean-language students believe that the welfare system controlled by the government has improved over the last two decades. However, they also believe that it is still far from adequate for what their parents will need for support in their old age. Both groups strongly perceive that taking care of their parents is one of their moral duties. Half of the English-language group wants to take care of their parents by living together with them, while the other half wants to support their parents financially while living separately and visiting them frequently. On the other hand, only one-third of the Korean-language students want to live together with their parents. However, it is still notable that approximately 40% of South Korean children plan to live together with their parents when they get old.

Both the English-language and the Korean-language students state that, although their parents may give them advice, there is virtually no influence from their parents in choosing any particular job or place to live. On the other hand, there is a large difference between the two groups regarding parental influence concerning the choice of spouses. While 19 out of 34 Korean-language students indicate that their parents have a significant influence on their choice of spouse, only six of 54 English-language students said that their parents greatly influence their spousal choice.

Students in both the English-language and Korean-language groups indicate that there will be continuous growth for up to 10 or 20 years, and a few even indicate that the growth will be forever. Expectations of continuous economic growth of this sort positively affect the students' expectations regarding quality of life and career options. It also

creates a noticeable pride in South Korea's achievements. However, the majority of students in both surveys feel that this economic growth will increase the gap between rich and poor, resulting in continuing poverty and social problems. While many English-language students write that they do not know how South Korea's economic growth impacts other countries, many Korean-language students write that they believe that this economic growth will positively impact other countries. In particular they feel that economic growth will make South Korea more powerful so that it can assist other developing countries. It seems like Korean-language students are less cosmopolitan, but more patriotic.

Students are asked to list the major positive and negative world-wide impacts of South Korea's economic growth. The most common types of responses include: South Korea's ability to help developing countries by acting as a role model for their economic growth; South Korea's use of information technology to impact world products; increased international trade among all nations; increased economic competition among all nations; improved synergy between Asia and all other nations; and South Korea's increasing role as a world power. When asked about the negative impacts of South Korea's economic growth, the majority of students in both surveys either write nothing or write that there will be very little negative impact on the world. Those that do write something indicate that severe competition might negatively impact neighboring countries such as Japan and China.

Students in both surveys are asked what South Korea might learn from the rest of the world. Responses include: the positive aspects of different cultures; mutual communication; advanced technology; social welfare systems; and advanced political and economic systems. On the other hand, respondents feel that South Korea could teach the rest of the world about: rapid economic growth (the "Miracle of Han River"); the Korean cultural virtues of politeness, diligence, manners, patience, and cooperativeness; the importance of emphasizing education; culinary variety; and information technology.

Overall, that survey indicates that respondents in general are proud of their historic national accomplishments, are very optimistic about their future, and have some degree of uncertainty about the rapidity and pervasiveness of globalization and its effects on South Korean society and cultural values. However, compared to their Korean-language counterparts, English-language respondents appear to have more family and career opportunities, to be more ambitious and independent, and to be less patriotic.

CONCLUDING REMARKS AND SUGGESTION

The results of this paper show that ethnically similar students of a single nationality may still possess important differences in worldview. Survey respondents of the same age and nationality, and studying at the same university, exhibit important worldview differences across groups formed based on differences in English-language skill alone. These

differences in worldview can be significant in affecting the students' expectations about family, career, and national success. It is important for international instructors, who may not be immediately familiar with the culture and the subtle differences between groups, to consider these differences when developing course goals and classroom techniques.

We suggest that instructors teaching in an international context with unfamiliar cultural expectations conduct a brief survey of student expectations concerning their personal life, their career plans, and their nation's potential for economic success. The survey can elicit information useful in developing a teaching strategy. The results of such a survey can quickly be analyzed and shown in class, prompting discussion. Furthermore, the results can be useful to the instructor when teaching at his or her home university. Reporting the results to Western students can be informative and increase international understanding.

Suggestions for future research include conducting the surveys in other countries, looking for differences in teaching style preferences among student groups within a single country, and analyzing the reactions of Western students who read the responses of foreign students. It might also be instructive to consider differences in expectations between students studying in their home countries and those studying abroad.

REFERENCES

- [1] Chia, Yew Ming, Hian Chye Koh, and John Pragasam (2008). An International Study of Career Drivers of Accounting Students in Singapore, Australia, and Hong Kong. Journal of Education and Work, 21(1), 41-60.
- [2] Du-Babcock, Bertha (2002). Teaching a Large Class in Hong Kong. Business Communication Quarterly, 65(1), 81-88.
- [3] Holmes, Prue (2004). Negotiating Differences in Learning and Intercultural Communication. Business Communication Quarterly, 67(3), 294-307.
- [4] Kennedy, Peter (2002). Learning Cultures and Learning Styles. Lifelong Learning in Action: Hong Kong Practitioner's Perspectives, Editors: John Gribbin and Peter Kennedy. Pages 71-92. Hong Kong: Hong Kong University Press.
- [5] Kragh, Simon U. and Sven Bislev (2005). Political Culture and Business School Teaching. Best Conference Paper. Academy of Management Annual Meeting Proceedings, D1-D6.
- [6] Rodrigues, Carl A. (2005). Culture as a Determinant of the Importance Level Business Students Place on Ten Teaching/Learning Techniques. Journal of Management Development, 24(7), 608-621.
- [7] Warden, Clyde A., Judy F. Chen, and D'Arcy Caskey (2005). Cultural Values and Communication Online: Chinese and Southeast Asian Students in a Taiwan International MBA Class. Business Communication Quarterly, 68(2), 222-232.

The Influence of English As A Second Language In Social On-Line Adolescent Communication: A Pakistani Scoping Study

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ABSTRACT

This paper reports and discusses the findings of an exploratory study on the influence of English vocabulary in the on-line environment of Pakistani adolescents. Some linguists, such as Sapir (1929) [1] and Whorf (1940, 1956) [2] have claimed a close link between culture and language, therefore, this study explores whether the study of a foreign language influences its use in an on-line environment, even when individuals are communicating in their first language.

According to Labov (1992) "...the social situation is the most powerful determinant of verbal behavior... 'speech situations' are those social situations in which there is appropriate use of language" [3]. Social situations on virtual social networks (VSN) can influence the verbal behavior of adolescent just like any other tangible scenario.

Data were gathered by means of a voluntary written survey distributed to adolescent students, in Islamabad, Pakistan. Participants were studying courses in English for Specific Purposes (ESP) and English as a Second Language (ESL).

An analysis of the data reveals a framework of adolescent VSN communication patterns consisting of emotive, connotative and clique-coded language discourse. It appears that Pakistani adolescent students regularly use 'Non-standard English' communication, comprising mainly of Urdu words/sentences written in English script, with new words invented for VSN communication with peers. The findings highlight the difficulties students face in learning a foreign language, and the need for teachers to develop suitable teaching and learning strategies.

The paper concludes by recommending that a revised integrated curriculum should be developed for the teaching of English as second language, so that it is significant and relevant to contemporary Pakistani

adolescents.

KEYWORDS: Adolescent Online Communication, Virtual Social Networks. Cultural aspects in Education, English for Specific Purposes (ESP), English as a Second Language (ESL), Teaching of English as a Foreign Language (TEFL), English Language Learners (ELL), Socio-linguistics.

INTRODUCTION

It is commonly accepted that the English language has become one of the most diffused means of communication across different culture in recent times, for business purposes. However the increasing popularity and usage of the English language has also taken place in non-business environments, especially in social media. Within this sphere of communication, much of the popularity of the English language has been attributed to the communication revolution of the past two decades through the internet. More recently, capitalizing on the internet communication revolution, Virtual Social Networks (VSN) have been created, such as MySpace, Facebook and Twitter. Adolescents have been among the bigger users of VSN and this scoping study focuses on this population group.

In the context of the research discussed in this paper, the interesting and important factor about VSN is that they operate with particular codes of communication at the macro level. Macro level codes of communication encourage conformity to the 'rules', but at the micro level development of different communication codes are also developing within specific communities of users that may share certain traits, such as particular nationalities, or ethnic groups. This is likely to lead to the development of hybrid forms of communication where new words and acronyms may be created, and this lies at the heart of the investigation of the research in this scoping study.

The paper firstly provides some definitions of internet language, and this is followed by some comments on the development of communication compression strategies, before discussing selected data and reaching a conclusion.

INTERNET LANGUAGE AND COMMUNICATION COMPRESSION STRATEGIES

Internet language has been defined as “a unique speech variety constituting a particular discourse code that is changing the way in which adolescents communicate among themselves” [4] (pp. 369-370). Another definition related to ‘netspeak’ a “type of language displaying features that are unique to the Internet ... [and this] ... language of geeks has had a strong influence on Netspeak hitherto, its jargon appealing to a relatively young and computer-literate population ... [it is an] ... abbreviated face-to-face interaction language” [5] (pp. 20-32).

It is the issue of compressing communications that is important in the context of this research. Although Twitter, with a character limit of 140, is a good example of the need to use communication compression strategies, the notion of compressing communications was recognized at least since Zipf (1949), who used the Principle of Least Effort (PLE) to explain how language evolves, as “many phenomena in language could be explained as the result of an inborn tendency in the human species to make the most of its communicative resources with the least expenditure of effort (physical, cognitive, and social)” [6] (p. 259).

Brevity, therefore, appears central to efficient communications, and indeed this is the case for modern society where compression communication strategies would seem ideal to cope with “the frenetic pace of everyday life and the need to accomplish more in shorter time frames” [7] (p. 16). It should be noted that the faster pace of life is not limited to adult business life, but also to adolescent social circles, with the expansion of VSN where the value of an individual appears to be measured by the amount of ‘friends’ one has on a VSN. As there is status associated with the quantity of ‘friends’ one is able to accumulate, there is a ‘need for speed’ in communications to be able to accumulate more ‘friends’. This has led to the adoption of miniaturization for online communications as a way of ‘saying more by saying less’, by using abbreviations, phonetic replacements and initialisms. Importantly, online interactions have contributed towards new Connotative Language Discourse expressions that are considered in the next section.

Data were gathered through a voluntary survey of adolescents in Islamabad, Pakistan, with 99 responses obtained from a roughly equal gender composition. All respondents were studying English as a second language.

CONNOTATIVE LANGUAGE DISCOURSE

Abbreviation in cyberspace is one type of miniaturization adopted in online communications. The research found that there was a high usage of abbreviations from the English language, with all respondents reporting they made use of ‘u’ (you); ‘brb’ (be right back) and ‘y’ (why). However, there was also a high use of Urdu slang (approximately 94%), with expressions such as ‘osher aya ay’ (you are brave); ‘ke hoya’ (what happened?) and ‘scene on hae’ (plan confirmed). Other Urdu slang words (approximately 90% usage) were ‘o pha jee/o bao’ (smart ass); ‘done hae’ (consider it done) and ‘changa fer’ (consider it done).

It can be observed that notwithstanding the high usage of Urdu slang, English has made considerable inroads in online communication and, indeed, the most cited abbreviations by the respondents were all from English.

Phonetic replacement is another example of online miniaturization. Phonetic replacement is achieved by replacing words with letters or numbers so as to reproduce the same phonetic sound when reading the written text. The majority of phonetic replacements cited by respondents indicated a high use of English, as evident by the following examples:

- Gr8 (great)
- F9 (fine)
- U (you)
- Y (why)

The list above provides a clear example of the reduction in text utilization in conveying the message – another form of compacting communications.

Initialism, as another (and final) form of miniaturization example was also observed from the data. Initialism is another word for acronym, where new words are composed by using the initials of other words. Examples of responses include the following:

- brb (be right back)
- btw (by the way)
- aka (also known as)
- asap (as soon as possible)
- fyi (for your information)

It can be clearly observed from the list above that initialism provides for more economical communication using a generally accepted code that does not detract from the message.

The seemingly high influence of English language derivatives may be explained by two contributing factors. One is that Pakistan is a former colony of the United Kingdom and this fact perhaps not unreasonably, may have contributed to influencing the local language to some degree, although there is no clear evidence that this has taken place in a major fashion. The other factor is that this group of students is studying English as second language and this may

influence them to be more predisposed to using some interspersed English as part of the vocabulary when communicating online with peers. However no evidence of this was discovered in the survey data. In order to gather additional information about the influence of the internet (and possibly the use of English), respondents were asked to identify the time spent online in the VSN environment. The responses are summarized in Table 1.

Table 1: Online VSN usage

Time spent online	Facebook	My Space	Twitter	Other: Orkut / Skype / Youtube
3+ hours per day	89 %	1 %	80 %	60 %
1 to 3 hours per day	8 %	0 %	19 %	23 %
< 1 hour per day	0%	0%	0%	0%
Once weekly (not every day)	2%	0%	0%	0%
Once monthly (not every week)	1 %	42 %	1 %	0%

It can be observed from Table 1 that the vast majority of respondents spend a considerable amount of time on VSNB activities on a daily basis. Interestingly, a significant proportion use Twitter as a means of communication and this invariably means they will be exposed to communication miniaturization practices, because messages in Twitter are limited to a maximum of 140 characters as noted previously. The implications for curriculum content and design arising from this scoping study are discussed in the next section.

CURRICULUM CONTENT AND DESIGN

Existing literature highlights that a curriculum that has been developed for adults is of little interest to adolescent learners [8] [9]. Consequently, it would appear that a new approach is required that takes into consideration and makes allowances for new technologies and ways of communicating, so as to provide the second language student with “a wider knowledge of varieties of the target language beyond traditional textbook” [7] (p. 16). The departure from the traditional textbook approach, however, is likely to be challenging and problematic, as the literature is divided about its benefits. On the one hand there are claims that “texting makes young people better communicators, not worse” [10], and on the other hand there are those who claim it as “vandalism” [11].

CONCLUSION

We live in a changing world and our technological capabilities are becoming increasingly sophisticated. The invasive influence of the internet and VSN cannot be ignored. In the context of learning English as a second language, there needs to be a rethinking of the traditional approach and a move towards the development of a more inclusive curriculum that specifically caters to different audiences.

The adolescent learner is likely to have a more rewarding experience when they are given the opportunity of learning another language by making use of contemporary material that is relevant to their stage of life. This may mean including internet and VSN communication as part of the curriculum content. It seems strange that traditional views are being held to, when on reflection, languages are ever evolving.

REFERENCES

- [1] Labov, T. (1992). Social language boundaries among adolescents. *American Speech* (67): 339-366.
- [2] Sapir, E. (1929): The Status of Linguistics as a Science. In E. Sapir (1958): *Culture, Language and Personality* (ed. D. G. Mandelbaum). Berkeley, CA: University of California Press.
- [3] Whorf, B. L. (1940): Science and Linguistics, *Technology Review* 42(6): 229-31, 247-8.
- [4] Bergami, R., Aulino, B., 2010, Teaching and Learning Italian via Online Communication in English Speaking Countries: A Comparative Pilot Study of Italian Adolescent Speech in Australia, Canada and Italy, *The International Journal of Learning*, 17(7): 369-381.
- [5] Crystal, D. (2006). *Language and the internet* (2nd edn). Cambridge, UK: Cambridge University Press.
- [6] Danesi, M. (2008). *Why it sells: Decoding the meanings of brand names, logos, ads and other marketing and advertising ploys*. Lanham, MD, USA: Rowman & Littlefield Publishers, Inc.
- [7] Nuessel, F. (2010). Cyberspeak, netspeak and textspeak for Spanish. *Mosaic*, 11(1): 15-20.
- [8] Aulino, B. (2005). *Italian Canadian adolescent speech: analysis and pedagogical implications*. University of Toronto, Toronto, Ontario, Canada.
- [9] Danesi, M. (1997). Investigating Italian adolescent talk: are there any implications for the teaching of Italian as a second language? *Italica*, 74(4): 455-464.
- [10] Crystal, D. (2008). *Txtng: The Gr8 Db8*. Oxford: Oxford University Press
- [11] Huang, L. (2008). The death of English (LOL), *Newsweek International*.

The Study of Satisfactions of People in Pathum Thani on the Role of Faculty of Management Science, Valaya Alongkorn Rajabhat University Under The Royal Patronage

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ABSTRACT

The research's purpose was to study satisfactions and to compare differences of satisfactions on the faculty of management, Valaya Alongkorn Rajabhat University. The sample contains 357 VRU personnel. The statistics in data analysis was frequency, percentage, mean, standard deviation, t-test, and ANOVA. The result found that satisfactions on faculty's role of the people with different sex, age, and education were different, except that the people with lower than bachelor degree are higher satisfied with the academic service than the people with higher bachelor, because the people with different satisfactions have different occupations at a statistically significant 0.05.

INTRODUCTION

The Valaya Alongkorn Rajabhat University under the royal patronage is the institute supervised by the council of Rajabhat university and has to practice the mission consistent to the Rajabhat university act 1995; moreover, it must provide the educational system as the society expects by focusing on development of human resource to be able self-independent. The local and country society must get improved by the system which must encourage the students to be skilled and long-life learned people. They have to learn by themselves, understand their families, local societies and the globe running with the latest information through their wisdom and habitually-learning wishes.

The Valaya Alongkorn Rajabhat University under the royal patronage is the local university which has the important role in the education system to develop the local in Pathum Thani and its neighboring areas as well as the country's other area; everyone should get educated for their whole lives and can adjust to stay happily. The Valaya Alongkorn Rajabhat university, therefore, has to adjust its role to conform to the mission under the Rajabhat university act 2004, section 7, following the 10th period educational goal and policy (2007 - 2011) as follows:

1. Education provision
2. Research
3. Social academic service
4. Improvement, transform, and

development of technology

5. Art and culture maintenance
6. Teacher production and professional

standard promotion

Under the 10th period education planning of the Valaya Alongkorn Rajabhat university, it is interesting to find that how the university's following the plan is conducted and satisfactory for the people to apply for improvement the policy in the future.

OBJECTIVES

1. To study the satisfaction of the people in Pathum Thani to the role of the faculty of management science of Valaya Alongkorn Rajabhat university
2. To compare the differences in satisfaction of the people to the role of the faculty of management of science according to the geographical principal

METHODOLOGY

The research has been conducted as – the populations were the Valaya Alongkorn Rajabhat University personnel and the people in the province with 18 years up, by 590,165 in the number. The sample groups, which was picked up through the simple random sampling method, consisted of the VRU's 357 personnel and the 358 local people from who the data has been collected. The tool for the research was two-parts questionnaires: the first part contains the respondents' personal information and the second contains the questions on satisfactions of the local people on the faculty of management of VRU. The statistics in data analysis was frequency, percentage, mean and standard deviation, and the statistics used to test the hypotheses was t-test and One-way Analysis of Variance (ANOVA).

RESULT

From data analysis, the research result can be summarized as follows:

1. The major part of the informants is female under 26 years, with bachelor degree, and being private company employees.

2. The people in Pathum Thani are mostly satisfied to the role of the faculty of management science at high level. Have considered on each aspects, the first three aspects- education provision, research and art and culture maintenance are most satisfied respectively.

3. The comparison of the differences in satisfaction of the people in Pathum Thani to the role of the faculty of management science of Valaya Alongkorn was found that it isn't different when viewed in discrepancy of sex and age.

4. The comparison of the difference in satisfaction, viewed in an aspect of occupation, was found that it is statistical different at 0.05, except in an aspect of the educational provision which is different.

DISCUSSION

The research result found that the comparison of the differences in satisfaction to the role of the faculty of management, Valaya Alongkorn Rajabhat university was not different among the sample groups consisting of different age, sex, and education level. The result was not consistent with the hypothesis, this is because the people were informed with the information and treated indifferently whether in terms of various sex, age. There is, however, an exception in the case the people with lower bachelor degree have higher satisfaction in educational provision than those with higher bachelor degree, because the people with different satisfaction levels and occupations would have different satisfaction at statistical level 0.05. That is consistent with the hypothesis, especially the government and the enterprise officials would have different satisfaction from students in every aspect, except the education, it may be that the university has provided the wide range of opportunity to access to the education for everyone.

SUGGESTIONS

In the aspect obtained in low satisfaction, the university should have the following improvement in direction:

1. In an educational aspect, the university should survey the graduates' needs, and encourage students to join in the community activities

2. In research aspect, the university should have cooperation with both national and international the organizations, exchange information, co-work in research, and develop the research information source

3. In academic service, the university should have cooperation with the government and private

sectors to determine the direction, pattern, and contents to give the social service together

4. In aspect of technology, the university should support the suitable technology to be used, developed, and improved in accordance with the local communities' needs

5. In aspect of art and culture maintenance, the university should support and enhance the cooperation with the communities to encourage the people to live following the good culture among the changing globalization; moreover, the culture center should have been developed and used as the academic resource for teacher production with improved process.

6. The process to get the right students to study and become the good feature-containing teachers should have been focused to help solve the communities' troubles.

REFERENCES

- [1] Best, John. W. Research in Education. New jersey: Prentice Hall, 1981
- [2] Boyatzis, Rechar E. The Competent Manager: A Theory of Effective Performance. New York: NY John Wiley & Sons, 1982
- [3] Certo, Samuel C. Modern Management. New Jersey : Prentice Hall, 2000
- [4] Gruneberg M.M. Understanding Job Satisfaction. New Jersey: John Wiley & Sons, 1979
- [5] Hubert Gatignon. Statistical Analysis of Management Data. New York : Glencoe McGrew Hill, 2003
- [6] Lyman Ott R. and Micheal T. An Introduction To Statistical Methods and Data Analysis. Carifornia : Duxbury Press, 2000
- [7] Marija Norusis. SPSS 16.0 Guide to Data Analysis. 2nd Ed. New Jersey : Prentice Hall, 2008
- [8] Robbins, Stephen P. Fundamentals of management. 3rd Ed. New jersey: Prentice-Hall, 2001
- [9] SPSS Incorporation. SPSS Base 16.0 Applications Guide. Chicago, 2008
- [10] Vroom, V. H. Work and Motivation. Florida: Robert E. Krieger Publishing, 1984
- [11] Yamane, Taro. An Introductory analysis. 3rd Ed. TOKYO : Harper International, 1973

Teacher Industry Placements as a Form of Professional Development for VET Teachers

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ABSTRACT

Teacher currency remains one of the most important issues in vocational education today, in light of industry requirements for graduates to be work ready in an ever increasingly difficult and complex global work environment. Keeping up-to-date with continuously changing work practices is a challenge for many teachers.

One form of professional development that can enhance teacher currency may be through an industry placement program. In an industry placement “the teacher is seconded to a host industry organisation for a predetermined period of time to undertake agreed upon tasks” [1] (p. 9).

The potential benefits of pursuing and industry placement, apart from the opportunity to gain up-to-date practical knowledge, include, but are not limited to:

- access to authentic workplace materials that may be used to enhance the student learning experience. For example, case studies may be developed from the industry placement experience and knowledge gained;
- access to industry resources, such as guest speakers;
- a better understanding of industry’s needs, enabling the teacher to shape the curriculum to up-skill students with the required knowledge and competencies to successfully enter the workforce; and
- development of networks with industry that may lead to the formation of communities of practice.

Through a series of semi-structured interviews conducted in Australia, as part of another project, this paper investigates the degree to which changes in teaching and learning practices are actually introduced into the classroom by teachers who have been on an industry placement. As an industry placement is a form of situated learning in a workplace context [2], the discussion is framed around Wenger’s (1998) three dimension of learning within a community of practice: Joint Enterprise, Mutual Engagement and Shared Repertoire of Knowledge [3].

The paper reports that there are significant institutional barriers in the implementation of changes in teaching and learning practices post an industry placement experience.

INTRODUCTION

Industry placements for VET teachers in Australia, and the relationships that may develop from this type of professional development activity occur within a VET educational context and a government policies environment, as shown in Figure 1 (reproduced at the end of this paper).

There are four key stakeholders identified in Figure 1, viz, the teacher, the educational institution, the host firm and the students. As can be observed from Figure 1, a number of inter-relationships are developed among the key stakeholders and these are presumed to contribute towards capacity building.

Industry placement experiences are not a new phenomenon and a considerable body of literature has developed over the past two decades, outlining the numerous benefits that may be derived by such an activity, and this has been previously summarized [4] [5].

This paper considers a previously developed theoretical framework [4] for industry placements shown at Figure 2 (reproduced at the end of this paper), as the basis for discussing what teachers report about the post industry placement experience after returning to their workplace.

INDUSTRY PLACEMENT THEORETICAL FRAMEWORK AND COMMUNITY OF PRACTICE DEVELOPMENT

Due to space limitations, this paper limits the discussion to the elements shown within the Community of Practice (CoP) circle in Figure 2, based on data gathered from personal semi-structured interviews with VET business studies discipline teachers, as part of a larger project.

The CoP theory by Lave and Wenger (1991) [2] suggests that knowledge and skills can be acquired at different levels and with different rates of participation. Nevertheless, the CoP requires that it first be formed and that it subsequently be maintained, for without 'rhythm' it will cease to exist [6]. Based on Lave and Wenger's (1991) [2] CoP theory and Figures 1 and 2, it appears that the teacher is central to the formation and sustainability of the CoP, and the catalyst for the development of the CoP is the industry placement. One of the questions this research aims to answer, at least in part, is the degree to which the industry placement actually fosters and sustains a CoP.

Participants reported that the industry placement is seen as an exercise by educational institutions in meeting their audit requirements, but placements are generally not valued as a form of professional development. There also appears to be little scope for teachers to implement changes to classroom teaching and learning practices as a result of the industry placement experience. Indeed, respondents reported the following:

I did not get the chance to engage in discussions with management about implementing changes because they've already got their benefit (audit compliance).

The host industry had no interest to keep in touch post the industry placement.

Industry placements are good for telling stories in class, but not so in terms of influencing curriculum changes.

No meetings/discussions/interest shown from any managers as a result of the industry placement experience.

The focus of the industry placement was about reporting on what was done on placement, after returning to my work place, but little was cared about in terms of classroom and teaching practices.

The comments above suggest that not all is as positive as the literature portrays. It appears that the focus of existing publications is on the positive aspects of industry placements, but pays little attention to the problems teachers face in implementing changes, and the difficulties of creating and sustaining a CoP.

There were other issues that surfaced during the interviews that although not related to the post industry placement experience, provided insights into the politics of educational institutions. In fact, one of the most often mentioned significant barrier to an industry placement was the difficulty of getting agreement on time release during the teaching period, a factor that also contributed to shorter placements

than desired. According to participants, lack of funding was typically cited as the reason, yet governments make funds available to facilitate industry placements, as a means of developing VET teacher currency. It is possible that those funds may be diverted to other activities, although no impartial evidence to substantiate this claim is available.

CONCLUSION

Industry placements provide VET teachers with professional development opportunities that, according to theory, should contribute to capacity building through enhanced classroom teaching and learning practices, and opportunities for developing a CoP. However, this research highlights possible tensions between theory and practice that warrant further investigation, to establish whether possible industry placement barriers impair or nullify any potential for capacity building.

REFERENCES

- [1] Bergami, R., Schüller A., 2009, VET Teachers' Perceptions on the Value of Industry Placement: Scoping Study in Australia, The International Journal of Knowledge, Culture and Change Management, Volume 8, Issue 11, pp.9-22.
- [2] Lave, J., & Wenger, E. (1991) 'Situated learning: legitimate peripheral participation; New York, NY, USA: Cambridge University Press.
- [3] Wenger, E. (1998) Communities of Practice: learning, meaning and identity, Cambridge University Press, Cambridge, UK.
- [4] Schüller, A., & Bergami, R. (2008) 'Expanding the Profession - Industry Placement for Teachers', in Swaffield B. & Guske I. (Eds.), Education Landscapes in the 21st Century: Cross-cultural Challenges and Multi-disciplinary Perspectives (pp. 196-205), Newcastle upon Tyne, UK: Cambridge Scholars Publishing.
- [5] Bergami, R., Schüller, A., Cheok, J. 2010, 'Academic Professional Development: Perceptions from Malaysia' presented at "Pan-Pacific Conference XXVII", Bali, Indonesia, 30 May - 2 June, pp. 349-351.
- [6] Henderson, M. (2007) 'Sustaining online teacher professional development through community design' Campus-Wide Information Systems, Volume 24, Issue 3, pp. 162-173.

Figure 1: Teacher industry placement: theory into practice

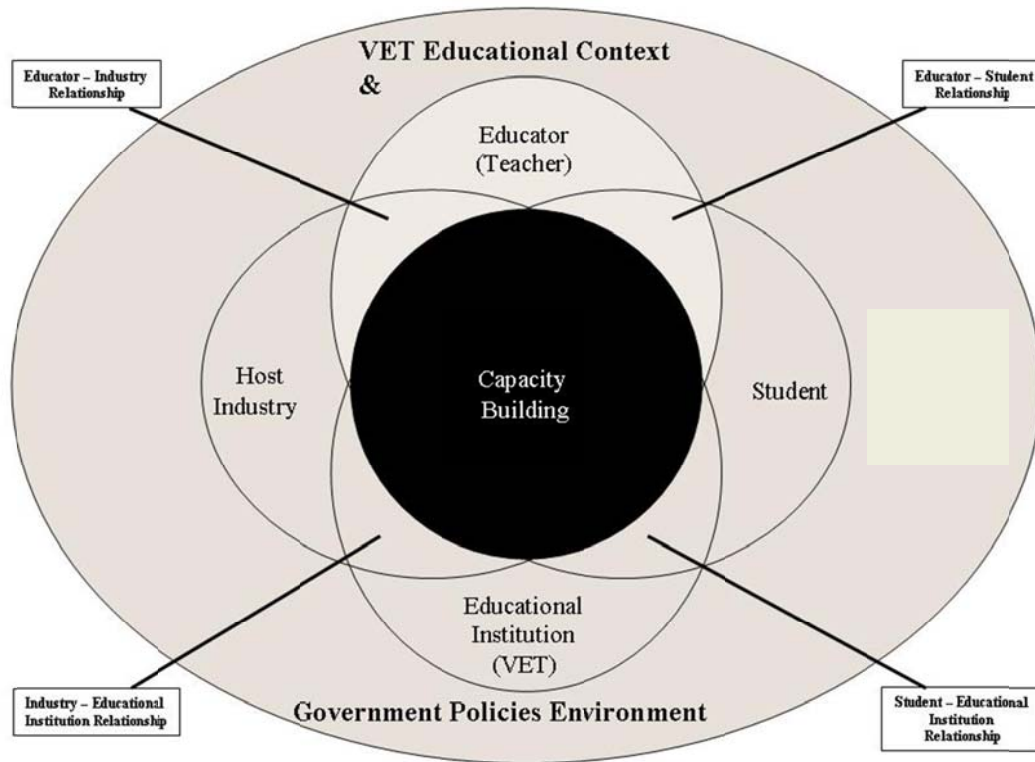
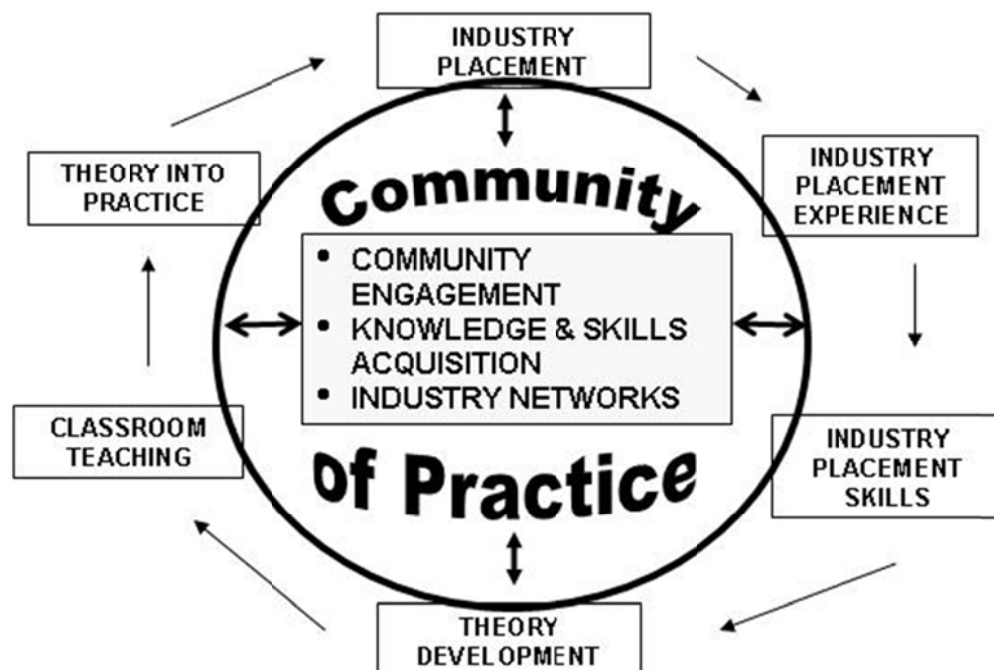


Figure 2: Teacher industry placement: theory into practice [4] (p. 201)



u-Health Business Model in Korea

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ABSTRACT

The Korean u-health market is expected to grow steadily. This study addresses how to make the business model for u-health services by using TEC (Technology Education and Commercialization), which is sets of information and decision analysis tools used in an experiential learning process to find, assess, and commercialize technologies.

Keywords: u-Health, Business Model, high-technology

I. Introduction: The TEC Program

The TEC Algorithm integrates a number of concepts from the product development and management literatures. From the product development literature, TEC draws from scoring models address project selection; hierarchical selection procedures for portfolio analysis; expert systems; technology audits; and process models of development such as the stagegate system. The course integrates the roles managers play such as gatekeepers and champions; and the critical factors of success. Literature on entrepreneurship, venture capital investment, and decision-making also contributed to the development of the TEC algorithm, as did the literature on strategic planning and management.

These include questionnaires, scoring sheets, aggregation charts, and worksheets with an accompanying set of processes to aid in technology commercialization. These tools are used to help TEC teams gather and quantify information, and also to assist with analysis and qualitative decision making. The TEC Algorithm is a complete developmental process with five stages leading to commercialization of scientific research and technology.

A. Ideation

The Ideation stage of the TEC Algorithm is critical because the attractiveness of commercialization is dependent upon the quality of the new technology. A well-performed search procedure identifies high potential technologies. The search stage consists of a number of sequential components: identification of a technical area, team organization and preparation, conducting structured interviews with the technologists, team debriefing, product manifestation,

comparing and selecting technologies, and feedback to the technologists.

B. Phase 1 Assessment

The Phase 1 Assessment of the TEC Algorithm is critical because the attractiveness of commercialization is assessed at an early stage before extensive business or technical research is conducted. A well-performed Phase 1 identifies fatal flaws early in the process. Phase 1 objectives are accomplished by applying process and management tools to the product idea.

After a product idea is generated, it is subjected to a series of functional analyses that lead to a strategic analysis. Following the strategic analysis, a decision point is reached. The decision point could lead to redefinition of the product idea based on better information, in which case the functional and strategic analyses would be repeated in an iterative manner. During these iterations, as information is collected and the product idea evolves, the TEC Algorithm explicitly revisits decisions based on previous information.

Alternatively, the decision could be to not proceed with the product at this time. In this case, the technologist is notified and the file is committed to a database for possible refinement in the future. If the decision is favorable, the product idea is submitted for further evaluation. This process may be as short as a few minutes if the necessary information is already known, or it may take the team a number of days to uncover the information.

C. Phase 2 Analysis

Phase 2 Analysis picks up from Phase 1 and follows a similar process with more detailed product ideas, functional analyses, strategic analyses, product redefinition, and a decision point. The decision point also leads to three possible choices: (1) redefine the idea, (2) drop the idea, or (3) move forward along the process. By the time a team reaches Phase 2 Analysis, product ideas with obvious fatal flaws should have been eliminated. In contrast to Search and Phase 1 where the team is selecting from among many choices, Phase 2 focuses on selecting the best opportunity and building a case for that technology. Where the questions in earlier stages are few and general, the questions in the analysis stage are numerous and detailed. In Phase 1, for example, there are few, independent questions about the intellectual property

protection potential of a product idea. In Phase 2 there are 10 or more patent questions regarding prior publications, foreign patents, the subject matter of the inventions, the efficacy of patents in the industry, and so on. If patents are not feasible, a series of questions are asked about trade secrets and copyrights as alternative means of providing protection for the new technology.

D. Commercialization Strategy

The TEC Algorithm specifies activities to develop a commercialization strategy for technologies: 1) technology advantage and ability to protect, 2) specifying a commercialization path, 3) building entry and expansion strategies for the new product, 4) assessing complementary assets, 5) making strategic platform decisions, and 6) writing appropriate documents for commercialization, such as a concept paper or business plan.

E. Commercialization Implementation

The final stage of the TEC Algorithm is commercialization implementation. The purpose of this stage is to assist in the actual implementation of the commercialization plan.

II. u-Health Industry in Korea

A. Positive future market outlook

The number of companies engaged in u-health service, merely 3 or 4 years ago, stood at over 100 as of March 2011. Amid the accelerating convergence between IT and traditional industries, the integration of IT in the health field is steadily increasing. IT spending in the Korean health sector steadily on the rise: The 15.1% rate of growth in annual average is estimated to even surpass the rate of growth in the global market. The Korean u-health market is expected to reach US\$ 2.8B, in 2014, with the u-wellness market, providing personal health mgt services, representing two-thirds of the overall market.

B. Principal Companies

Samsung Electronics: A B2B strategy distributing medical devices for hospitals and centered on transactions between pharmaceuticals companies. Acquisition of Medison, an ultrasound monitor maker, in Dec. 2010. Dr. M, an application for smart pads, under development jointly with Bit Computer. Clinical trial plan for Roche's biosimilar Mabthera submitted for approval.

LG Electronics: Focus on consumer u-health products: Touch Dr., a family physician service (commercialized in Dec. 2008). IPTV-based telemedicine and medical advice service. Establishment of a consortium to operate health care centers (2011).

BIT Computer: the company most active in developing u-health-related applications and systems: Teleconsultation system, Emergency monitoring system. Medical information system for small and medium-size hospitals and care facilities.

B. Needed Capabilities from companies participating in u-health system and service development:

The industry, although it has a strong market potential, is still at its early stage in terms of infrastructure and technology. Cooperative research between the industry and academia on algorithms, signal processing and hardware development is urgently needed.

III. u-Health Business Model

A. u-Health Industry concept

We define the u-Health industry as the new paradigm of medical services which can be provided easily regardless time and place by introducing ubiquitous information technology. It can be classified by three: u-Medical, u-Silver, u-Wellness. u-Medical is the healthcare service area for the disease prevention, treatment and control based on ubiquitous information technology. u-Silver is the healthcare service area for the old based on ubiquitous information technology. u-Wellness is the healthcare service area for improving the quality of life based on ubiquitous information technology.

B. Potential killer applications for u-Health

We have conducted focus group interviews with 20 medical experts several times. In conclusion 12 potential services are considered as the killer application for u-Health industry.

Table 1: Potential killer application for u-Health

u-Medical Business	u-Silver Business	u-Wellness Business
①u-treatment service	①u-safety care service	①u-healthcare service
②u-chronic disease service	②u-homecare service	②u-lifecare service
③u-hospital service	③u-life support care	③u-healthtainment service
④u-emergence service	④u-taking medicine service	
⑤u-rehabilitation service		

C. Priority of potential killer applications

We have examined and analyzed 12 potential killer applications for the best one. For this we use BMO Analysis framework, which consists of 2 factors; market attractiveness and fitness. u-chronic disease service has been selected as the greatest promising service for u-Health industry.

IV. Business Model CASE Study : u-chronic disease Management Service

A. Service Concept

u-chronic disease Management Service consist of providing disease related information, informing emergency situation, and advising with analytic data patient-tailored.

B. Target Customer

The target customer for this service is chronic disease patients: Diabets disease, high blood pressure disease, erebrovascular disease patients, a cardiac disorder patients

Table 2: Target customers for u-chronic disease

Category	high blood pressure disease,	Diabets disease,	erebrovascular disease	a cardiac disorder
Patients (2007)	4,100,000	1,670,000	600,000	590,000
Doctor's fee/p	US\$172	US\$281	US\$1,372	US\$836
Total	US\$779m	US\$517m	US\$906m	US\$555m
Patients growth rate	116%	8.3%	12.9%	8.7%

C. Value Proposition

Patients can be provided with disease related information and informed of emergency situation and analytic data patient-tailored.

D. Service Provision and Profit Model

The medical service provider gives patients u-chronic disease treatment facility for medical fee and the solution provider can make profit from the medical service provider for selling solution and maintenance.

F. Growth Model

We have forecasted the market growth size for u-chronic disease management service as follows;

Table 3: Forecasting Market Size for u-chronic disease

Category	2010	2011	2012	2013	2014
high blood pressure disease,	US\$ 32m	US\$ 35m	US\$ 38m	US\$ 42m	US\$ 45m
Diabets disease	US\$ 50m	US\$ 55m	US\$ 62m	US\$ 69m	US\$ 77m
erebrovascular disease	US\$ 58m	US\$ 65m	US\$ 73m	US\$ 83m	US\$ 94m
a cardiac disorder	US\$ 35m	US\$ 38m	US\$ 42m	US\$ 45m	US\$ 49m
Total	US\$ 175m	US\$193	US\$ 215m	US\$ 239m	US\$ 265m

REFERENCES

- [1] Markham, Stephen K. An Algorithm for High Technology Engineering and Management Education, the Journal of Engineering Education, Dec. 1999
- [2] Michael Morris, The entrepreneur's business model: toward a unified perspective.

Prospects of the Smart Grid Industry for Green IT in Korea

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ABSTRACT

Due to climate change and global warming, an international movement is rapidly being formed to regulate green house gas emission. Hence, as a solution to the problem, smart grids are receiving renewed attention as an important contributor to environmental protection and low-carbon green development. Specifically, smart grids are being proposed as a necessary link between explosive worldwide energy consumption, power consumption, and green house emission regulation and reduction.

In this paper, I highlighted the need to push for smart grid industry, government policy, Enterprise Technology Trends and possible evolution of smart grids as a converged industry through its expansion.

1. Introduction

A smart grid refers to a grid that enhances energy efficiency by exchanging real-time information between suppliers and consumers through the combination of information technology (IT) and conventional grids [1].

There are three advantages to the synthesis of IT and conventional grids. First, the reliability, efficiency, and stability of the grid are enhanced. Second, through the exchange of information on energy between suppliers and consumers, a smart grid encourages reasonable energy consumption and provides high quality energy and other diverse services. Lastly, a smart grid makes it more convenient to integrate and expand green technology such as alternative energy and electric cars.

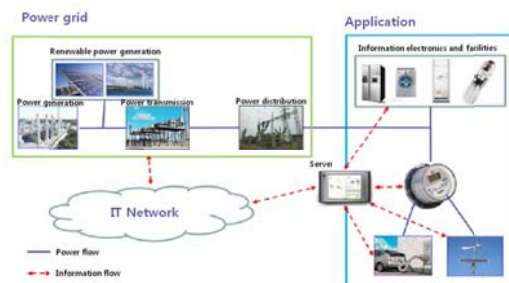


Figure 1. Concept map of a smart grid

If grids today are analog systems with one-way communication, smart grids utilize a two-way

communication method based on digital technology. Smart grids converge energy and IT and possess diverse characteristics such as the digitalization of the grid, paradigm shift of energy production and consumption, active participation of consumers, linkage with distributed generation through alternative energies, creation of new products and services, expansion of operation efficiency, and self-healing capabilities.

2. Smart Grid Policy and Technology Trend

Smart grid trends by country reveal that Korea's strategic strengths in implementing smart grids lie in the creation of new developments that apply technology and know-how from IT, reduction of energy costs, provision of conditions for expansive development of alternative energy, and export industrialization. Smart grid research is being led as power IT by the Ministry of Knowledge Economy, with research on cable communications technology, power intelligence technology, etc. in the areas of power, communications, and distributed generation.

On the other hand, the US is pursuing a smart grid policy under the goal of replacing aging facilities and enhancing power systems within 60 years [2], and Europe is seeking to accommodate distributed generation and raise energy efficiency by conserving the environment, expanding the diffusion of distributed generation, energy exchange between countries, and EU grid services [3]. Under the European Commission's (EC) leadership, smart grid research is being conducted on two-way service technology, grid efficiency and stability enhancement technology, etc. in the areas of power and distributed generation. Also, Japan is pursuing smart grids in the perspective of economic enhancements through response to global warming, energy safety, and core technology acquisition. Under the goal of innovative energy operation and expansion of alternative energy, they are planning to strengthen solutions to energy and environmental problems and industry competitiveness [4].

In terms of policy, Korea established the power IT (smart grid technology) unified policy since 2004, and basic technology has been developed through industrial and academic research institutes and other professionals. In addition, ten national projects were selected and conducted since 2005 in order to develop a smart grid network regarding energy, power, and

users. Furthermore, the smart grid was selected as a development strategy project for the green energy industry in 2008, and a smart grid construction committee was established in order to provide a base for law and institution.

When comparing Korea's smart grid technology levels with other developed countries, AMI, smart meters, and monitoring equipment reveal that Korea possesses an equal technical level with other developed countries. However, technologies such as demand reaction technology and electric car-related parts are at a very low level. Also, although power automation technology is at par with other developed countries, planning and operation technologies for distributed generation and intelligent systems falter behind. In addition, overall electric car battery technology nears that of developed countries, but system linkage and operation technology halt at basic levels. Core components needed for infrastructure development such as recharging components and interfaces are in development.

3. Smart Grid Industry Ecosystem and Player Trends

Players, who are components of the smart grid ecosystem, are very diverse. Not only are there market players related to optimizing and upgrading development, power, and power management, but government research facilities and associations that develop technology that reflect the national power and energy policy also interact with commercial industries.

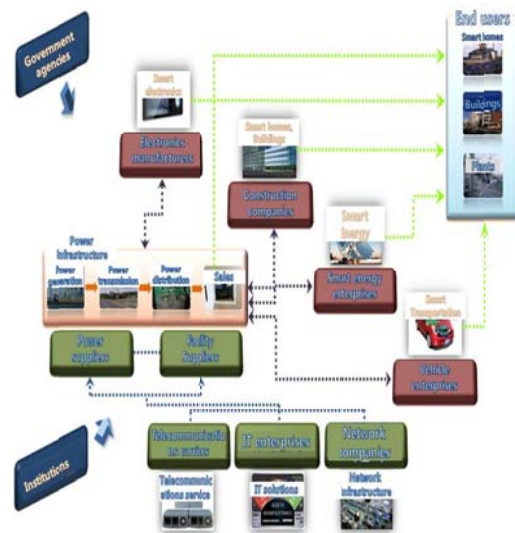


Figure 2. Smart Grid Ecosystem Model
As seen in Figure 2, the smart grid ecosystem model consists of related industries, government facilities, research facilities, and consumers that organically interact along with the expansion of the smart grid.

Major companies participating in Jeju Smart Grid Test Bed project include SK Telecom, KT, LG Electronics and KEPCO. They will try to enhance efficiency in power consumption for electronics through smart meters installed in homes and office buildings. The saved power will be stored in batteries to be resold to power suppliers.

Smart transport Pilot projects led by KEPCO, SK Energy and GS Caltex will have electric cars on the street along with power charging stations and quick charging stations. Furthermore, a new system will be established to minimize the impact on the grid caused by charging a vehicle. Finally in smart renewable industry, KEPCO, Hyundai Heavy Industries and POSCO ICT are actively engaging. The projects will turn unstable renewable power sources like wind turbines and solar energy into reliable generators for smart grids, thus making them core icons of green growth.

4. The Convergence of Smart Grids and the Market Prospects

The existing power grid system requires a lot of time and investment to switch over to smart grid systems. Though many people agree that most of the current power related infrastructure has to be revised and supplemented, there is no concrete plan, guideline, or standard for new smart grids. While the convergence of smart grids with power industry, heavy electric industry and IT industry is expanded to other existing industry, many new smart businesses are expected to be created. Some of the examples expected to converge to smart grids are energy, construction, electronics and auto industries. Of course there are other sectors that can be converged to smart grids such as ship building, defense, aviation and other industries.

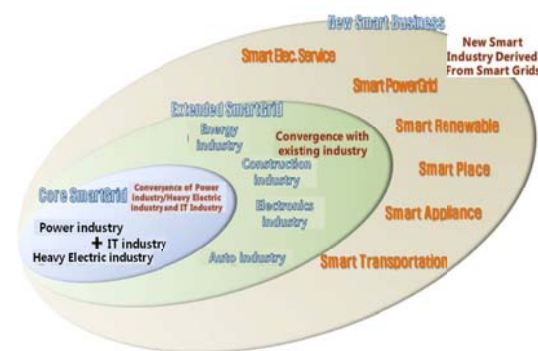


Figure 3. The Convergence of Smart Grids with Existing Industries

In this paper I tried to forecast new smart businesses derived from the expanded convergence of smart grids with existing industries and concluded that it is appropriate to divide Smart Places and Smart

Appliances. In this regards, I propose some new businesses as follows:

The advancement of power industry will evolve into “Smart Electricity Service” and this will create “Smart Heavy Electricity” or “Smart PowerGrid” by making electric power facilities and systems more efficient. Meanwhile, smart grids will converge with existing industries such as energy, construction, electronics and vehicles and will create a new smart business category.

As we are already faced with pollution and depletion of fossil fuels, “Smart Renewable Businesses” will be created in the energy industry while we are searching for alternative energy sources. This will start from establishment of systems to store renewable energy and connect load balancers.

When smart grids are converged with auto industry, “Smart Transportation” business will appear. This is an integrated business including battery rent and charging services required in developing, distributing and operating electric cars and hybrid cars and also personal complex communications services related with vehicles. When smart grids are converged with electronics industry, “Smart Appliances” business will appear. The smart grids are expected to converge with advanced home networking/platforms, low-power electronics and lighting, domestic smart meters and intelligent electronics. In construction industry, “Smart Places” will be activated along with smart electronics and smart grids. “Smart Places” are represented by smart homes, smart buildings and smart plants which offer efficient energy management systems, smart meters, smart platforms and domestic charging systems for electric car users.

As the business scope of smart grids is not defined yet, it is difficult to predict the size of its market. Therefore, I forecasted the size of domestic market based on the government plans for smart grid supply and market classifications by other professional research institutes. In this research the following two assumptions are used to predict the size of the domestic smart grid market. First, the government’s plan for smart meter supply will turn out successful and the market is created up to the expectation. Second, as SBI(2009)[5] classified the smart grid market in four segments with equal shares, the Korean smart grid market will be formed in four different sectors which include Integrated Communications, AMI (Advanced Metering Infrastructure), Smart Sensor and other related sectors in IT H/W & S/W markets.

Thus, using the two assumptions, the size of AMI market was first calculated and then respective shares were assigned to the remaining three segments. Finally,

the total market size of smart grids in Korean was decided by adding up the four sectors.

According to the forecast, the domestic market size of smart grids will start from 817.4 billion Won in 2010 and begin to grow from 2015 and reach 6 trillion 600 billion by 2020. Smart Sensor, the largest segment in smart grid market, is estimated to be 444.2 billion in 2010 and reach 3 trillion 60 billion by 2020. Integrated Communications and AMI (Advanced Metering Infrastructure) market are estimated to be 118.1 billion and 75.6 billion respectively in 2010 and reach 905.2 billion and 1 trillion 458.4 billion respectively by 2020.

5. Conclusion

In this paper, I highlighted the need to push for smart grid industry, government policy, Enterprise Technology Trends and possible evolution of smart grids as a converged industry through its expansion.

As the business scope of smart grid industry is not defined yet, it is difficult to predict the size of its market. But its forward and backward linkage effect derived from new smart grids businesses is turned out to be enormous. Smart grid industry is created from its convergence with information telecommunications technology (ITC), power generation facilities and construction. Its effect can only be fully displayed with the support of synergy created through close cooperation with existing industries, which will not be attained by IT itself.

Smart grids can generate various new businesses by converging with diverse industries can be done by cooperation and coexistence through “the stage of convergence” which creates synergy. Existing smart grid industry was focused on IT based enhancement of efficiency in power generation, transmission and distribution. However, when it is supported by appropriate government policy, its expansion to new smart industry and powerful growth through convergence with other industries will become obvious.

REFERENCES

1. Ministry of Knowledge Economy, National Road Map of Smart Grids, Jan. 25, 2010.
2. US Ministry of Energy, <http://www.oe.energy.gov>
3. BCC Research, Enabling Technologies for the Smart Grid, Mar. 2009.
4. UOC, Global Industry Trends related with SG, KETI, EIC, Feb., 2010.
5. SBI, Smart Grid Technologies, Markets, Components and Trends Worldwide, Jun., 2009

Future Interface Technologies based on Customer Needs

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ABSTRACT

Interface technology can be found in every industry and life in connection with ICT.

This study addresses the trend and prospect of interface technology, classifies human-computer interface technology, and proposes a new approach to explore future interface technology.

This study has conducted brainstorming to classify human-computer interfaces, and the classification was based on the input factors 'five sense + motion + brainwave + bio-signals'. And we suggests 'GAP analysis model' as an approach to explore the future interface technology.

INTRODUCTION

The word, 'interface,' presents the comprehensive concept of a physical medium or a software program to exchange information between two systems. In other words, it covers every type of physical or virtual media created for communication between things or human and machine(computer).

Since the concept is so comprehensive, interface technology can be found in every industry and life in connection with ICT.

They function to transfer, route, and time electrical signals among a given system's microprocessor, memory, and various peripherals, and also between interconnected systems.

The need of input devices will increase in the future as interface becomes varied. Some ten years ago, there were few input devices except mouse and keyboard. However, now focus is on such devices as smart phone, touch technology or biometrics. Such technologies will enable input devices to be used in every corner of life in the future.

Therefore, it is a vital issue to understand and predict the direction of interface technology development and the evolution in the future. This study addresses the trend and prospect of interface technology, classifies human-computer interface technology, and proposes a new approach to explore future interface technology.

TREDS & PROSPECTS

Technical trends

There could be various factors that may affect the development of interface technology. For instance, influential are the evolution of ICT such as computing

technology, changes in the users' demand, and spread of new devices.

It is expected that computing technology in the future combines entertainment, broadcasting, communication, and home appliance based on the network accessibility, and features both functionality and portability. Moreover, it may develop into a five sense information processing terminal, providing comprehensive input/output functions of information from five senses, such as tactual sense, olfactory sense, palate as well as sight and auditory sense,

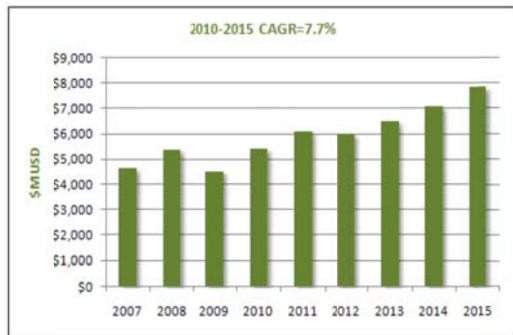
In addition, technology to process the five sense information will play the key role in enhancing the quality of life and in changing the life pattern of culture of humankind through realizing the combination of five senses including not only existing combination of sight and auditory sense, but also technological development of translating information into tactual sense, olfactory sense, and palate.

As the five sense based communication technology is realized, five sense information will be extended from the sight and auditory sense centered communication to various applications, to education, medication, welfare, and even to entertainment sector, which will also realize more natural and realistic communication.

The five sense based Human-Computer Interaction (HCI) technology is the common key technology for natural interfaces between human and machinery such as the next generation PC, intellectual robot, digital home, telematics, etc. As differentiation and competitiveness of products and services are highlighted, technology development for this is urgently needed [2].

Market prospects

There is a great deal of outsourcing associated with computer, communications, and consumer electronics, which are the largest markets for interface. The current global market for interface products is estimated \$5.4 billion (2010), and it has the potential to exceed \$7.8 billion (by 2015) [3]. It is growing at a compound annual growth rate of about 8 percent for the forecasted period.



Source: Databeans, 2010 Interface, July 2010.

Figure 1: Worldwide interface revenue forecast

Directions of evolution

Especially, the development of computing technology is playing the catalytic role in advancing interface technology.

There have been various investigations on the direction of advancing interfaces, especially user interfaces.

This study, therefore, predicts the direction of interface advancement based on the direction of ICT advancement which is regarded as the matrix. A number of experts expect in common that the major factors in advancement of ICT are 'Mobility', 'Intelligence', 'Embedment', and 'High-touch.'

An interface can never evolve in a direction that is totally different from that of ICT. To sum up, interface technology in the future will aim

- ① an interface that can be adopted with no limitation in terms of time and space;
- ② an interface that enhance convenience and efficiency in utilization of virtual reality and five sense information;
- ③ an interface that is embedded in every related industry and technology; and
- ④ an interface that stimulates feelings of users and gives them joy.

HUMAN-COMPUTER INTERFACE

Human-computer interface

Human-computer interface means a physical, virtual medium of an instant or permanent approach for communication between human(user) and objects or systems such as machine, computer program, and so forth. In other words, this system of interaction between human and computer includes physical hardware and logical software, and adopts input and output methods.

In the past, the use of the term, 'user interface,' was limited to computers, but it is expanded to various digital devices recently. As a result, interface became a element as vital as design and performance. Even if the product features outstanding functions and innovative design, consumers would neglect and the

products will disappear if the user interface is not satisfactory.

Five-sense interface

As engineering technology develops, emerges the five sense technology that transforms human-recognizing factors such as color, sound, smell, flavor, and touch into digital signals. Computer interface technology that used to rely only on sight and auditory sense overcomes the spatial and time limitation, and evolves to an interface technology that provides new media such as 3D video/audio, tactual sense, olfactory sense, palate etc to present the human-friendly, actual feeling-oriented next generation human interface.

Such five sense information processing technology is a human-centered technology that can provide actual feeling services so that users can feel as real the five sense information such as touching, tasting, and smelling by means of five sense mechanism-based computers in addition to seeing and listening.

Among the five senses, sight and auditory sense are based on physical stimulation such as light or sound. As the examination on the receptor has been conducted for a long time, the technology for the sensing and representation devices is now at the stage of practical application. However, the tactual sense has yet to interpret the receptor although it is clear that mechanical stimulation and physical stimulation such as heat-stimulation are the input data [5]. Thus, sensing devices are not yet at the stage of practical application, and representation devices too are not yet widely used although they are partially applicable. Palate and olfactory sense are formed by chemical stimulation, but the interpretation of the receptor has yet to go a long way, and so do sensing devices and representation devices.

The interpretation of how five sense information of is recognized in human brain in terms of physiology and psychology seems to take a long time, but this is a key element in establishing the technology of sensing, producing, and sending in partial utilization of such achievements. The five sense information processing technology is an area that can drastically change the user's lifestyle. In consideration of the high publicity, it is highlighted as the platform technology provide high quality information service in the Ubiquitous computing environment, which will be the basis for IT industry in the future, home and abroad [2].

Classification human-computer interface

This study has conducted brainstorming three times with 11 technical experts to classify human-computer interfaces, and the classification was based on the input factors 'five sense + motion + brainwave +bio-signals'.

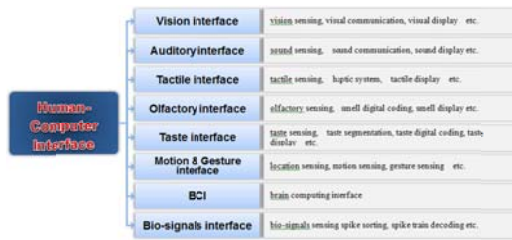


Figure 2: Classification of human-computer interfaces

It is expected that this sort of classification could be utilized as a basis for classification in interface-related engineering or social science studies, and 'GAP analysis model' suggested in this study too will adopt it as a classification criteria.

SEARCHING FOR FUTURE INTERFACE TECHNOLOGIES

The two key factors in facilitating the advancement of technology are 'technical push' and 'demands pull' although it does not necessarily means that technical push always leads to successful products and services. Therefore, to develop a successful interface, constant attention needs to be on the voice of users and social demands. In other words, both technology and users' needs must be taken into consideration.

In this regard, this study aims to develop a methodology that compares the needs and satisfaction

of interface users, and that compares the results with predictions and evaluations of technology experts. This model will be analyzed to improve interfaces in the short run, and grasp how to develop interfaces in the long run.

This study suggests 'GAP analysis model' as an approach to explore the future interface technology. The conceptual framework of this model is as follows: Figure 3.

It is planned to make the GAP Analysis model more specified with actual survey and presentation of the results in the future.

REFERENCES

- [1] <http://ko.wikipedia.org>
- [2] Park, J.S. Five sense technology for next generation human interface, NIPA ITFIND, 2006.08.
- [3] Databeans. 2010 Interface: General Purpose Analog Service, 2010
- [4] Han, S.S., & Sim, J.B. New ICT service; Trends and direction of evolution, Information and Communications Magazine, 2010, 27(2), 3-10
- [5] Beryl C.D. Lipton. Making smell-o-vision a reality, The Harvard Crimson Online Edition, 2007

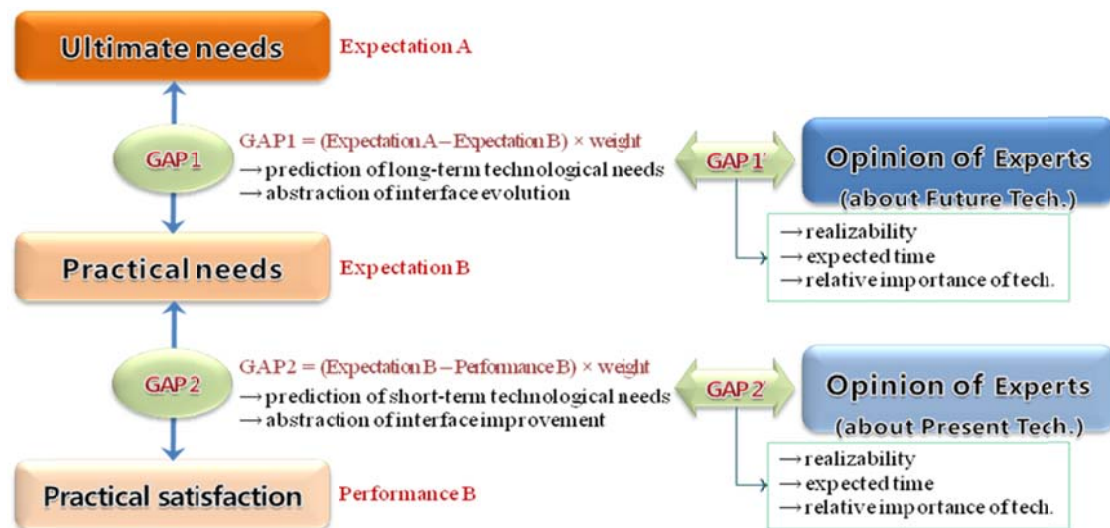


Figure 3: GAP Analysis model

Managing Uncertainty on the Cloud

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ABSTRACT

Cloud computing refers to providing computation services over the Internet. These Web-Based services are available to the public over network connections and managed by a third party which guarantees the availability of these services at an appropriate price. In this paper we will discuss the various sources of uncertainty that result from placing data and applications on the cloud. Furthermore, we will discuss counter measures to reduce or eliminate these uncertainties by instituting policies and procedures to decide what application and data to place on the cloud.

INTRODUCTION

Cloud computing refers to providing computation services over the Internet. These Web-Based services are available to the public over network connections and managed by a third party which guarantees the availability of these services at an appropriate price. This presents an attractive option for some companies to delivering computing services to their businesses without maintaining an IT operation (Yves, et al, 2010).

In this paper we will discuss the various sources of uncertainty that result from placing data and applications on the cloud. Furthermore, we will discuss counter measures to reduce or eliminate these uncertainties by instituting policies and procedures to decide what application and data to place on the cloud.

Cloud Computing is one of the biggest technologies in the IT world today. It evolves from the idea that work done on the clients can be moved to the “cloud” (Veiga, 2009). George Pallis describes Cloud computing as a coming together of different computing services such as Internet delivery, “pay-as-you-go” utility computing, elasticity, virtualization, grid computing, distributed computing, storage, content outsourcing, security, and Web 2.0 (Pallis, 2010). In his article on cloud computing, Pallis uses the US National Institute of Standards and Technology’s definition for cloud computing:

“Cloud computing is a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (for example, networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction. This cloud model promotes availability

and is composed of five essential characteristics [on-demand self-service, broad network access, resource pooling, rapid elasticity, and measured service], three service models [cloud software as a service, cloud platform as a service, and cloud infrastructure as a service], and four deployment models [private cloud, community cloud, public cloud, and hybrid cloud].” (Pallis, 2010)

Daniele Catteddu and Giles Hogben (2009) in their paper on cloud computing suggested the following characteristics of cloud computing services:

- Highly abstract resources
- Near instant scalability and flexibility
- Near instantaneous provisioning
- Shared resources
- ‘Pay as you go’ system
- Programmatic Management (Cattedu and Hogben, 2009, pg 14)

They also stated that the forecast for cloud services in 2009 will be \$17.4 billion and in 2013, it will be \$44.2 billion. (Catteddu, Hogben, 2009, pg 4).

Uncertainty with Computing on the Cloud

Cloud computing does not come without uncertainty, however. When the firm’s data is placed on the cloud, the firm has very limited control over such data. This makes the data exposed to hackers and other breaches. In a survey poll of InformationWeek Analytics, security concerns topped the list of reasons to not use cloud computing services (Shipley, 2010). Shipley illustrates that even the biggest of cloud providers, like Google, are subject to security breaches and therefore firms have every right to be concerned about their data on the cloud (Shipley, 2010). Furthermore, applications that are hosted by the provider may not be available all the time, and/or they may not present the latest versions of these applications. As such, the client may encounter uncertainties with respect to these applications or the results that are delivered by these applications.

Sources of Uncertainty

There exist a number of sources of uncertainty chiefly among them are:

- Missing information
- Trusting the available information
- Inconsistency of available information

- Irrelevant information
- Interpretable information

Potential Uncertainty Treatments

After sources of uncertainty have been identified and assessed, all techniques to manage the uncertainty fall into one or more of the following categories

- **Avoidance:** This implies not performing the activity associated with the uncertainty.
- **Reduction:** This involves employing methods that reduces the uncertainty. In the case of deploying applications on the cloud, uncertainty reduction may be achieved by deploying these applications incrementally. Outsourcing could be considered a form of uncertainty reduction if the developer can demonstrate a higher technical capability than the originator of the application.
- **Transfer:** This involves buying insurance where the damages from uncertainty could be compensated for by the insurance provider.
- **Retention:** This involves accepting the uncertainty and budgeting for it.

When selecting a cloud service provider, the “transparency” of the provider should be also taken into account (Shipley, 2010). Shipley found that some providers like Google were ready and open to questions, while others did not cooperate. Transparency and visibility of the key control features is important to assess areas like cloud provider's quality-assurance processes, service-level agreements, financial health, and dependence on other suppliers (Shipley, 2010).

Shipley also suggests auditing to look into the security features of the cloud provider. SAS 70 type II audit is a letter of attestation and a report on the control objectives of the provider; but not many firms are willing to let customers see their report on the control objectives (Shipley, 2010). Shipley states in his article that an audit named CloudAudit A6, is being prepared to evaluate and assess the cloud providers thus making it easier for customers to access and choose an appropriate cloud provider (Shipley, 2010).

Cloud Computing could benefit from a service level agreement (SLA) between the client and the cloud provider. Furthermore, the client should encrypt its data and use appropriate high security controls for sensitive data on the cloud (ICASA, 2009). According to the organization, the SLA will help cloud clients specify if joint control frameworks will be used, clarify expectation of both parties and state policies for disaster recovery. A strong SLA will be beneficial to both parties (ICASA, 2009).

John Wheeler (2010) recommends the following company's internal key areas to examine before adopting or considering cloud technologies:

- Organizational and Human Resource Security
- Access Control
- Asset Management
- Physical and Environmental Security
- Operations and Change Management
- Disaster Recovery and Business Continuity
- Privacy

Below is a list of some of the uncertainties that a cloud client might encounter depending on the services of the cloud provider and its willingness to grant access to its facilities to the cloud client.

- **Governance:** A cloud client may become uncertain about the governance of the software resources due to gaps in security with the cloud provider.
- **Lock in:** A cloud client can become very dependable on the service provider and prevents the client from changing providers. This adds uncertainty to the quality of information that the client receive from the cloud.
- **Isolation failure:** A cloud client could become uncertain about the separation of storage, memory, and routing between different tenants. The cloud client might not know, or be able to find out if such separation fails.
- **Compliance Risks:** A client uncertainty might manifest itself if the cloud provider does not allow customer to audit it, or if the cloud provide cannot provide compliance with the needed requirements.
- **Data Protection:** A cloud client might encounter another uncertainty about the information it is receiving from the cloud provider if the cloud customer cannot effectively check the data handling practices of the cloud provider or if the cloud provider is not willing to provide that information.
- **Insecure or incomplete data deletion:** When a client makes request to the provider to delete data, the provider may not truly delete the data because the disk to be deleted might also contain data from other cloud clients. This represents uncertainty about the data to the cloud client (Catteddu, Hogben, 2009, pg 9-10).

A cloud client is responsible for dealing with all the uncertainties that are generated from using a cloud provider to handle its data and applications. It is beneficial for a cloud client to take certain precautions before adopting the cloud technology. Taking these

precautions will reduce or mitigate the uncertainties that such a client will certainly encounter after adopting the cloud technology. The following are some precautions that could be exercised by a cloud adopter.

- A cloud client should determine if the data is suitable to be put on the cloud. Performing cost benefit analysis will definitely help in the process of classifying which data should be considered as a candidate for the cloud.
- A cloud client should find a cloud provider that does security assessments to determine whether the application or the data is ready for the cloud.
- A cloud client may start with non-sensitive and less valuable data on the cloud. This is an important first step until appropriate measures are considered implemented to reduce the uncertainty that the cloud introduce into applications and their data.
- A cloud client may evaluate service provider agreements to determine how the cloud provider secures data. This evaluation is detrimental in choosing a cloud provider since it reduces the uncertainty of the client.
- A cloud client should also insist on transparency of the cloud provider so that they understand what's happening underneath the virtual cloud infrastructure. This also goes a great way in reducing the uncertainty of the client with respect to its data on the cloud (HP, 2010).

Some or all of the above precautions may be instituted as policies and/or procedures for farming data and applications to the cloud. A careful draft and adherence to these policies and procedures will go a long way to reducing, or even, eliminating some of these uncertainties.

SUMMARY AND CONCLUSION

Cloud computing refers to providing computation services over the Internet. These Web-Based services are available to the public over network connections and managed by a third party which guaranties the availability of these services at an appropriate price. In this paper we discussed cloud computing, the various sources of uncertainty that result from placing data and applications on the cloud, and counter measures to reduce or eliminate these uncertainties by instituting policies and procedures to decide what application and data to place on the cloud. A further analysis of these procedures and policies with respect to their effectiveness and efficiencies is in order. Such analysis should be based on data collected from firms that have used or using the cloud for their software applications. Instruments for data collection should be designed, firms identified, and these instruments administered in the selected firms. The collected data is then utilized to assess the efficiencies and effectiveness of these policies and procedures.

REFERENCES

References are available upon request.

Enterprise 2.0 Meets Cloud Computing

Lee, James J.
Seattle University

Kim, Ben B.
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ABSTRACT

With this social reconstruction, companies are now seeking the benefits of Web 2.0 as Enterprise 2.0. A good example in Enterprise 2.0 is business intelligence through CRM (customer relationship management). The purpose of this paper is to provide more universally applicable practices for Enterprise 2.0 platform. This framework measures the “business strategies” for Enterprise 2.0 model, SLATES (McAfee, 2007), which help managers to operate organization in the optimal level. Significant benefits of Enterprise 2.0 can be summarized into six categories: search, links, authorship, tags, extensions, signals (SLATES). This study investigates major benefits of Enterprise 2.0 from the leading vender of cloud computing, Salesforce.com. This will unveil how social computing reformed in cloud computing in Salesforce.com case.

Introduction

One of the major impacts on communications today is the use of Web 2.0, relationship management over the Web. With this social reconstruction, companies are now catching up the benefits of Web 2.0 as Enterprise 2.0. A good example in Enterprise 2.0 is business intelligence through CRM (customer relationship management). The Internet creates e-business markets as well as the e-management of organizational resources remotely, as appeared in the form of cloud computing lately. Thus, managing Enterprise 2.0 means managing cloud computing with effective relationship management.

The purpose of this paper is to provide more universally applicable practices for Enterprise 2.0 platform. This framework measures the “business strategies” for Enterprise 2.0 model, SLATES (McAfee, 2007), which help managers to operate organization in the optimal level. Significant benefits of Enterprise 2.0 can be summarized into six categories: search, links, authorship, tags, extensions, signals (SLATES). The leading CRM provider, Salesforce.com is analyzed with SLATES framework. This shows how cloud computing today can form Enterprise 2.0.

Natural inheritance of cloud computing matches Web 2.0, then transcends to Enterprise 2.0. The significance of this study is how business strategies fill in the gaps between

Business Strategies of Enterprise 2.0 Elements

McAfee (2007) proposed SLATES Framework to describe Enterprise 2.0. In this paper, we extended the SLATES to business strategies.

Search. The first component of SLATES is search. It provides Enterprise 2.0 reuse, leverage, and ROI due to discoverability of information. Web 2.0 runs information and communication technologies over the Internet, forming various indications of work groups that evolves to intranet and extranet. This includes the Internet, LAN and WAN networks for business, email and online chat/bulletin boards and real-time video conferencing. These technologies allow smaller workgroups as part of a larger company operate independently of each other, across a room or the globe. It also focused on individual task from mass-customization functions from the current CRM.

Links. Companies now can direct any services using uniform resource identifiers (URIs) to forge thousands of deep interconnections anytime and anywhere. Because companies use clouds today, integration between services can be very flexible (or tended to be temporal), but can done instantly in both ways, vertically or horizontally. While each member of Enterprise 2.0 is indeed linked to a much larger corporate structure which oversees them all, they each remain a separate and often self-sustaining entity. They rely very little on outside help from the larger organization and work independently of the majority of other members. Each member of the organization is charged with an explicit task to complete as it relates to the overall function of the organization. Often times, after this single goal is completed, the link between the organization and the entity is dissolved until a further need for it is realized. At this point, the link is re-established.

Authorship. Employee empowerment is getting stronger in Enterprise 2.0 platform. The ease with which two members of a Enterprise 2.0 can communicate allows them to pool their resources, even with members not directly involved in a

specific project. It fundamentally provides a high level of modularity in collaborative culture. By their nature, Enterprise 2.0s foster camaraderie between members even in the absence of face-to-face communications. Since the built-in communications tools are so easy to access and use, relationships form between members who haven't even met. A corporate culture forms out of friendship that produces a highly collaborative nature unlike traditional organizations where such extensive communicating is not required.

Tags. All resources are ready to be tagged, allowing natural, organic, on-the-fly organization of data from every point of view. Members of a Enterprise 2.0 collaborate to share their knowledge gained from individual activities performed. Since collaboration is facilitated through the communications channels that are afforded through the Enterprise 2.0, it is common to find "knowledge bases" or other database systems that contain information and documents pertaining to past experience. This brings the switching principle - a fundamental advantage that a Enterprise 2.0 has over a traditional one. Because the links between organizational functions are largely electronic and non-physical, it is easy to replace a weak component with a stronger one. In other words, Enterprise 2.0s are often formed to fill temporary needs, only extending to the end of the specific project that is charged to them. As a continuation of flexibility, the Enterprise 2.0 is characterized by vague boundaries as to the extent of its use and purpose. Since small tweaks can easily and largely affect the overall organization, it is quite possible to extend the boundaries of an organization so that they encompass new purpose, people or control.

Extensions. All resources have been documented with self-organizing culture, extending knowledge by mining patterns and user activity. The nature of global diversity and the ability to locate organizational functions across the globe creates a diverse environment for the entire organization. Since members are all in different locations and charged with different tasks, diversity exists that is only found in the very largest multi-national corporations. It also allows the transience of a Enterprise 2.0 for components to be regularly switched in and out of use, altering the overall structure of the organization. Because this can be done with relatively little impact, the frequency with which components are switched is high and allows each organization to quickly adapt itself to a changing environment. The lack of physical interaction places a higher regard to the trust that exists between each entity involved in the organization. Since fewer "checks and balances" can be placed on appropriate departments, management and other entities trust that they will complete the appropriate work on time or be straightforward about delays or problems. If two entities working on a project together separated by thousands of miles are unwilling to trust each other, the work slows and suffers to a critical point.

Signals. As one of the major drives in Web 2.0, it creates logical level of communications from client/server architecture that mainly interconnects resources in reference model using URIs. This makes information consumption efficient by pushing out changes in inference model. For

example, customer based products can be accomplished through outsourcing work to a separate organization or through the use of a virtually connected inter-organizational node located closer to the customer. Each individual facet of a Enterprise 2.0 is expected to contribute an equal amount of work towards a given goal, if appropriate. While the equality may not be measured best in quantity, it can be restated as effort and the successful completion of all tasks assigned to it, be they large or small. Since every task is considered to be essential as a part of the project, the equality comes in the addition of that piece to a larger puzzle.

A Case Study: Salesforce.com

Salesforce.com has been a primarily CRM solution provider in Software as a Service (SaaS). Lately, it extended its territory to Platform as a Service (PaaS) with Force.com. In this section, we investigate how SaaS and PaaS can meet the framework of Enterprise 2.0.

Search

The Force.com platform stores data in similar fashion to the relational database. The platform user can create objects, a similar representation to a table in relational database, and use these objects to store data in the cloud. The platform provides an ad-hoc search feature that allows users to search and display data in a user-friendly web user interface without the need for in-depth knowledge of SQL. In addition to the search, the platform provides analytics tools that allow users to create dashboards and reports and monitor real time data. With the ease of creating objects and manage data in the cloud, coupled with the search and analytics tools, users can concentrate in monitoring the key performance indicators to steer business to success.

Links

Each record stored in the Force.com object, by default, comes with a unique identifier. When combined with salesforce.com domain, the unique identifier acts as a uniform resource identifier (URI) to retrieve and view the data. The data is displayed with the platform's customizable web user interface and security setting. Since objects can form a parent-child relationship, the platform user hyperlinks to display the relationship between the parent and the child records, and vice versa.

Authorship

Salesforce Content is a Salesforce CRM feature that can be added into the Force.com platform. With Salesforce Content, platform user can upload documents in the cloud and share with others. Other users can subscribe to documents and receive notifications when the author uploads a new document version. Salesforce Content also allows users to provide feedbacks on the uploaded documents, allowing rich interactions between the users and the author.

Tags

The Force.com search & analytics tools empower users with ways to retrieve, organize and present data in a structured manner. In addition to the search & analytics tools, the

platform provides its user with free-form tagging mechanism, as way to categorize and bookmark data. The tags can be set as private or public. If set to public, other users in platform account can view the public tags and the records associated with each tag. They can also contribute to these public tags by tagging additional records with identical keywords.

Extensions

With the latest acquisition of Radian6, salesforce.com is adding a social media monitoring tools into the platform monitoring tool into the platform. Radian6 provides a unique technology to monitor and measure conversation in social networking sites, such as Facebook, Twitter, and blogs. Once integrated with the Force.com platform, this tool will allow the platform user to extend knowledge about the sentiments of brands or specific business activities by mining the patterns and the user activities from social networking sites.

Signals

Salesforce Chatter, a Facebook-like feature, is an enterprise collaboration feature that can be enabled in the Force.com platform. Chatter allows user to follow people, documents or records in the platform. The Chatter API posts changes

related to item that user follows in his/her Chatter profile page, allowing the user to receive notifications about the changes.

In addition to Salesforce Chatter, the platform provides a point-and-click workflow builder and an Apex programming language. With workflows and Apex programming language, platform user can develop custom business logics that allow the system to send an email notification or assign a task to specific platform users. User who is assigned with the task will receive an alert in a small pop-up window when the user logs in to the systems.

Conclusions

This paper is our initial efforts to match Enterprise 2.0 with cloud computing solutions. With SaaS and PaaS, Salesforce.com achieves high expectation for business organizations. With business strategies provided in this study, building Enterprise 2.0 with cloud computing is not cloudy anymore.

References upon by requests

A Study of Job Skills for Web Developers

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ABSTRACT

Previous studies have been conducted to investigate the knowledge and skills that are needed for IT jobs such as programmer, systems analyst, and IT manager. Although these studies have made a significant contribution to IT practitioners who need to prepare for their future careers, some newly evolved job titles have yet to be touched by IT researchers. This research intends to investigate the knowledge and skills required for web developers by analyzing job ads posted on websites.

INTRODUCTION

The Internet plays an important role connecting business organizations with customers and suppliers. The web is a hypertext system that enables Internet users to easily search for a variety of information. Because the web supports networking services such as telnet, FTP, E-Mail, and gopher, Internet users think of the web itself as the Internet. Many IT jobs, such as programmer (Todd, et al., 1995), programmer/analyst (Lee and Han, 2007), webmaster (Wade and Parent, 2001), have been studied to help IT professionals prepare for their future careers. However, In spite of the importance of the web in today's businesses, IT researchers have hardly investigated the knowledge and skills needed for web developers. By analyzing job ads posted on websites, this research aims to examine the knowledge and skills needed for web developers.

DATA

Past researchers have attempted to understand the requirements for IT jobs through an analysis of job ads. By analyzing job ads, we are able to see the knowledge and skill requirements for web developers.

Table 1. Job Ads Collected

Website	Number of Job Ads	Number of Companies
http://www.saramin.co.kr/	278	190
http://www.jobkorea.co.kr/	255	201
http://www.incruit.com/	18	18
http://www.scout.co.kr/	13	13
Total	564	422

For example, Lee and Lee (2006) collected and analyzed 555 job ads for IT managers posted on Fortune 500 corporate websites. By analyzing IT job ads printed in newspapers between 1970 and 1990, Todd and his colleagues attempted to understand the historical trends of skill requirements in the IT industry. Gallivan and his colleagues (2004) also analyzed Internet job ads for the purpose of understanding the changing patterns of IT skill sets between 1988 and 2003. In this study we collected 564 job ads for further analysis as shown in Table 1.

RESULTS

Using the analysis scheme developed by Lee and Lee (2006) we performed an in-depth analysis to identify the knowledge and skills needed for web developers. Of the eight different skill categories, as shown in Figure 1, software (88.1%) and development (91.7%) were the most important requirements for web developers.

Figure 1. Percentage of Ads That Referred to Each Category at Least Once

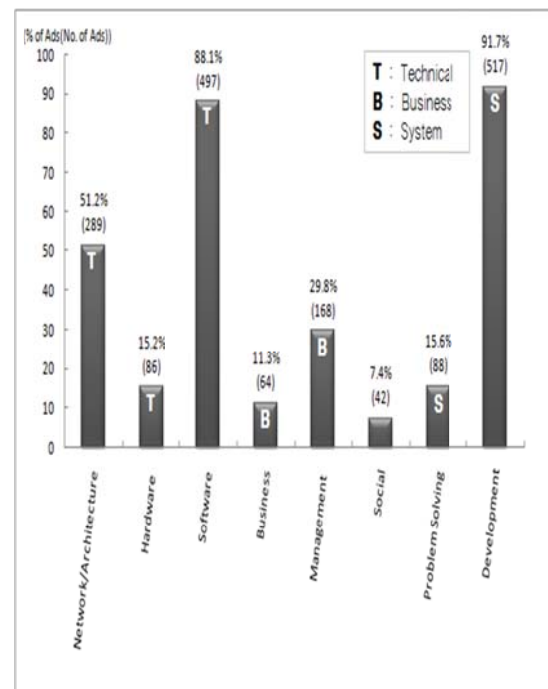


Table 2. Number of Ads for Skill Requirements

Class	Category	Skills requirement	# of Ads	% of Ads
Technical	Software	Programming Language	467	82.8%
		Database	241	42.7%
		OS / Platforms	105	18.6%
		General Knowledge of S/W	47	8.3%
		Packages	4	0.7%
		CASE	0	0.0%
	Hardware	Server	80	14.2%
		General Knowledge of Hardware	7	1.2%
		Desktop/PC	4	0.7%
		Devices/Printers/Storage	1	0.2%
	Network/Architecture	Internet	276	48.9%
		Networking & N/W Devices	15	2.7%
		Client/Server	13	2.3%
		Network Security	12	2.1%
		General IS Architecture	7	1.2%
		LAN/WAN	5	0.9%
		Mainframe	0	0.0%
		Electronic Business	34	6.0%
Business	Business	Industry Specific	19	3.4%
		General Knowledge of Business	9	1.6%
		Enterprise-wide	2	0.4%
		Business Function Specific	2	0.4%
		General Management	108	19.1%
	Management	Project Management	39	6.9%
		Training	35	6.2%
		Planning	6	1.1%
		Leadership	5	0.9%
		Organization	5	0.9%
		Monitor & Control	4	0.7%
		Change Management	3	0.5%
	Social	Communication	29	5.1%
		Self-Motivated	15	2.7%
		Interpersonal	13	2.3%
System	Problem Solving	Analytical / Critical / Logical / Systematic Thinking	50	8.9%
		Customer Oriented	27	4.8%
		Modeling	10	1.8%
		General Problem Solving	5	0.9%
		Strategic Thinking	4	0.7%
		Creative/Innovative	2	0.4%
		Adaptive/Flexible	1	0.2%
		Quantitative	0	0.0%
	Development Methodology	General Knowledge of Development	428	75.9%
		Programming	237	42.0%
		Knowledge of General Technology	146	25.9%
		Design	93	16.5%
		Operations/Maintenance	85	15.1%
		Documentation	84	14.9%
		Knowledge of Methodologies	52	9.2%
		Analysis	51	9.0%

		Integration	24	4.3%
		Quality Assurance	23	4.1%
		Implementation	6	1.1%

Table 2 is divided into eight categories and shows the number of ads that referred to specific knowledge and skills. Most of the job ads required Programming language (82.3%) and Knowledge of Development (75.9%). The knowledge and skills that were mentioned by more than one-third of job ads collected were database (42.7%), Internet (48.9%), and programming (42.0%).

Table 3, reveals that java was the most important language required for web developers. JSP and .Net programming languages were also needed for more than twenty-percent of the job ads collected.

Table 3. Number of Ads for Programming Languages

Programming Language	Number of Ads (%)
java	337 (59.8)
jsp	196 (34.8)
.net Languages	124 (22.0)
Php	110 (19.5)
C#	63 (11.2)
Visual Lanugages	42 (7.4)
C++	30 (5.3)
C	13 (2.3)
COBOL	1 (0.2)

SUMMARY

This research collected and analyzed 564 job ads posted by business organizations in South Korea. By analyzing the contents of the ads collected, we were able to understand the knowledge and skills required for web developers in the country. The results of this research need to be compared with the results from the analysis of job ads for other IT jobs such as programmer, systems analyst, and IT manager. Future research needs to collect job ads from other countries to see if the requirements for the job are the same worldwide.

REFERENCES

- Gallivan, M.J., Truex, D.P., and Kvasny, L. (2004). Changing patterns in IT Skill sets 1988-2003: a content analysis of classified advertising. ACM SIGMIS Database. 35(4). pp.64-87.
- Lee, C.K., and Han, H.J. (2007). Analysis of Skills Requirement for Entry-Level Programmer/Analysts in

Fortune 500 Corporations. *Journal of Information Systems Education*. 19(1). pp. 19-27.
Lee, S.M. and Lee, C.K. (2006). IT Managers' requisite skills. *Communications of the ACM*. 49(4). pp. 111-114.
Todd, P.A., McKeen, J.D., and Gallupe, R.B. (1995). The Evolution of IS job Skills: A Content Analysis of

IS job Advertisements from 1970 to 1990. *MIS Quarterly*. 19(1). pp. 1-24
Wade, M.R. and Parent, M. (2001/2002). Relationships between Job Skills and Performance: A Study of Webmasters. *Journal of Management Information Systems*. 18(3). pp. 71-96.

The Contribution of Traditional Clusters in Contemporary Cluster Development Research – The Case of Jingdezhen Porcelain Industry

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ABSTRACT

Based on a project examining the Jingdezhen porcelain cluster in China, this paper challenges Porter's diamond of national competitive advantage, investigates how well Western cluster theories are applicable in Chinese traditional cultural clusters, and examines how Chinese traditional cultural cluster research can contribute to cluster research as a whole. In order to reveal the characteristics of the entire porcelain cluster, including the business environment, business networks, business operations, and production techniques and procedures, Grounded Theory was employed. Extensive data was collected via interviews, observation, field notes, and historiography; participatory action research is currently continuing the project.

INTRODUCTION

Jingdezhen porcelain is an icon of Chinese traditional culture clusters, with a history of 2,200 years. "Chang Nan" – the ancient name of the city – was pronounced by foreign buyers as "china", which means that the world got to know China through Jingdezhen porcelains. In comparison, the earliest case presented in Porter's book "The Competitive Advantage of Nations" has a history of only about 400 years. Due to the duration of its history and the uniqueness of Chinese culture, the Jingdezhen porcelain cluster is expected to contribute to current cluster research.

METHODOLOGY

Grounded theory is considered to be one of the most rigorous analysis methods that frees researchers from theoretical restrictions with the intention of developing a more holistic view of the research target. Several research methods are strongly complementary to Grounded Theory for data collection: interviews, observation, field notes, and historiography – all of which were employed in this study. Due to the complexity of this project and its multiple research methods, the data was classified into divisions. The main data library for grounded theory was compiled with three streams of first hand data: interviews conducted in Beijing, interviews conducted in Jingdezhen, and field notes collected via observation in both locations. The data collected through

historiography were considered a component of extant literature. The three sets of data in the data library are inter-dependent; because they were coded separately, the examination of theoretical saturation is confirmed not only within the separate streams, but also examined by data from historiography. Thirteen key categories were formed as a result of analytical coding.

Due to the novel approach taken to Grounded Theory, this project also presents a contribution in the application of Grounded Theory in industry and cluster research, as well as combining a variety of research methods together with Grounded Theory. The findings extend but do not conflict with classic cluster literature, and include outcomes specific to the cluster examined. Limitations and potential future research are discussed at the end of this report.

BRIEF LITERATURE OVERVIEW

Background literature research included Chinese traditional cultural clusters as a whole. First, it examined traditional Chinese thought, noting that for over a thousand years the most influential philosophers were Confucian and Lao Zi. Current philosophies and principles guiding business developed from their teachings. Their influences stretched from theology through the arts, cultural expression, and business practices. The most influential Western theorists in China are Karl Max (Communism), Émile Durkheim and Max Weber (in sociology), and Adam Smith with the Wealth of Nations and Alfred Marshall with Principles of Economics, which are considered the most popular and honored economics classics in China. Finally, the history of Jingdezhen itself was reviewed, providing in-depth contextual understanding for this project.

The background knowledge provided by the literature reviews helped frame the substantive area of this project while retaining freedom for this cluster-focused research to link the fields of business and management, sociology, and economics. The background literature review confirmed that Grounded Theory is the most suitable approach for this project, as it is more exploratory-oriented. Developing a more holistic and open sampling and coding system was facilitated by keeping the diverse ideologies in mind.

ANALYSIS

In a simple Grounded Theory application, a stream of data only needs to reach theoretical saturation in order to be tested, while in this study of Jingdezhen's porcelain cluster, different research methods built up triangulation and each stream of data is unique in nature and provided information from different angles. Therefore, unlike a typical Grounded Theory application, the saturation examination is held through the historiography. The emergence of theory will be based on the key findings (or emerging categories) and tested by authenticated historiographic data.

Through mapping the key findings, nine distinct key areas of Jingdezhen's porcelain cluster were identified. These nine foci for the emergence of theories are:

1. Jingdezhen Porcelain within Global Economy

From the outside in, there are several layers of relationships. First, the big global market can be divided into a global buyers market and national buyers market, within which the local market is situated. Second, the main groups of buyers internationally and nationally are tourists, porcelain shops, exhibitions, auction houses, antique markets, and porcelain collectors. Third, the overall Jingdezhen porcelain market is made up of nine main buyer markets, with very clear divisions of porcelain production and distinctive functional or technical types. Fourth, different buyer groups target different types of markets, allowing increased specialization. Fifth, auction houses and antique markets should be excluded as the Jingdezhen market here is about porcelain production, not about existing antiques.

2. Transformation of Buyer Behaviors: Roles, Locations, and Sourcing Channels

From the key categories about the buyer market, there are three sets of loops which differentiate Jingdezhen's porcelain buyers from buyers in other industries. The first cycle is role transformation; the second loop is geographical or location transformation; and the third involves transformation of sourcing channels.

3. Impact of External Business Environment on the Porcelain Industry

In the external business environment, there are six influential groups that strongly affect the industry. They include strong overseas competitors, strong national competitors, the local government, customers, opportunity seekers including overseas artists and businessmen, and education and academic support

4. Government Intervention vs. Public Expectations

A series of missteps and possibly unintentional deceptions by the local government diminished its credibility among the porcelain producers, leading to underutilized areas as well as conflicts over relocation of sections of the industry. Pressure to free up

centrally located land for real estate investment (notably luxury apartments) led the government to choose sides, typically not recognizing the importance of production as a whole for the community. Other major issues include poor communication from the government, dissolution of state-owned enterprises without a strategy for the industry, and rampant disregard of copyright violation and faking of antiques.

5. Jingdezhen Porcelain Cluster Internal Network – Core and Supporting Industries

Porcelain as the only backbone industry of Jingdezhen has a group of key supporting industries, accounting for over 50% of the area's population. The supporting industries include white clays, drawing and carving supplies, chemicals (glazes and colorings), kilns and firing, wrapping and boxes, porcelain transportation, hospitality, and several others. When the economy is booming, they benefit from the prosperity of porcelain production; in an economic downturn, they are influenced by reduction in demand.

6. Porcelain Cluster Population Structure

Half of the total population moved in from nearby Fuzhou, entering nearly every business sector, including fruit selling, construction, and clothing. Porcelain industry workers themselves have a very high level of mobility and instability; they are more like fortune seekers and do not stay in one position for long, especially as salaries for craftsmen are very low and labor contracts are mostly part-time.

7. Traditional Divisions in Porcelain Technique Specialization

There are two groups of specialists. One is the state-owned factories (1950s to 2000s) and the other is local specialists (formed over hundreds years ago and transformed over time). The specializations of the ten state-owned factories are retained by redeployed craftsmen from factories and have become streams of production characteristic of Jingdezhen porcelain arts. Private producers tend to be regionally clustered; most craftsmen could name the distinctive features of each regional group as even now they still pass on their techniques to relatives, families and people from the same village, town, or city. The patterns in divisions of porcelain technique are relatively stable with slight increases or decreases in a particular workforce.

8. Contemporary Porcelain Cluster Incubation Timeline

There are three phrases that are important to cluster incubation with key movement in thoughts, politics and economics. In the early 1900s, the modernization movement saw China just released from the Qing dynasty's closed-door policy, with the opportunity to learn about a relatively novel outside world. The new government and the intellectuals depressed the value of Chinese traditions and brought new thoughts and technologies from abroad. They valued machines and machine-made goods, depressing handcrafting. In 1949, political transformation created the People's

Republic of China and started the first formal industrialization program, with the establishment of state-owned factories in Jingdezhen, using production plants bought from overseas, depressing handcrafting further. A very tiny group of potters remained to produce reproduction and traditional porcelain to gain foreign currency. Between 1949 and the 1980s, China was under a planned economy based on the practices of Russia and guidance from Communism. Since the early 1990s, a second modernization and a capitalist transformation have occurred. Since the early 1990s, people started to realize the importance of national identity and recognized the treasure in traditions. Jingdezhen retained and increased hand crafted production in self-driven private sectors, while the state-owned factories suffered significant deficits. In the late 1990s, most state-owned factories stopped production, effectively devaluing machine-made ceramics. Today, 98% of the porcelain businesses are SMEs, and the remaining 2% are big businesses that are also privately-owned, not state-owned.

9. Comparison between Local-embedded and Government Planned Markets

There are three markets representing local embedded markets: Fanjiaying, Guomao, and Jinchangli; while another three were planned by the government: Xindu, Jinxiuchangnan, and Porcelain Town. Comparing the two sets based on a list of measures developed by cluster researchers from Beijing as well as on interviews in Jingdezhen, it is clear that the local embedded markets achieve far more favorable ratings in every category. The list includes historical opportunities, geographic proximity, international business activities, local entrepreneurship, less government intervention, globalization, convenience in transportation, and goods location.

CLUSTER THEORIES & COMPETITIVENESS

Clusters have a long history of being part of the economic landscape, with geographic concentrations of trades and companies in particular industries dating back for centuries [2]. Cluster research can trace back to Adam Smith [1], who raised the issue of division of labor [3]. He says "The greatest improvements in the productive powers of labour, and the greater part of the skill, dexterity, and judgment with which it is anywhere directed, or applied, seem to have been the effects of the division of labour." Division of labor is an essential characteristic of firms in clusters; it is also a very important finding from the field data from Jingdezhen. It indicates the relationship between firms in clusters, as every firm has different functions within clusters.

Porter combined new and old perspectives in clusters and published "Location, Competition, and Economic

Development: Local Clusters in a Global Economy" [2]. He commented that clusters' advantages lie outside companies and even outside their industries, residing instead in the locations at which their business units are based. Governments should not attempt to create entirely new clusters, but reinforce and build on established and emerging clusters. That applies to Jingdezhen's porcelain, which is not a new cluster but a cluster with a long history of prosperity.

Chinese cluster research started from the 1990s. Information exchange and sharing on cluster development between Chinese government and other governments has increased. A number of cluster research organizations have formed throughout China. Since 2003, some cluster research projects were launched by the Chinese government based on theory application in China. For example, the project "Geography Economics Theory of New Clusters and Empirical Research in China" is coordinated by Wang Jici, a professor at Peking University who has already published more than 100 academic articles on clusters domestically and overseas.

CONCLUSION

The value and contribution of this research can be divided into two areas: methodology and findings. In terms of methodology, this project has managed to make several contributions. First, there was no cluster research conducted using Grounded Theory; it commenced in 2007 with this project. Second, four main data collection methods were used together with Grounded Theory: interviewing, observations, field notes, and historiography. Normally, Grounded Theory employs only one data collection method. Combined this group of research methods permitted gaining as rich as possible raw data from all available channels. There is no conflict between the findings from classical theories found in sociology, economics, and management. The reality in Jingdezhen includes the key contributions of the pillars of cluster research.

REFERENCES

- [12] Chen, L. Research on innovation mechanisms of industrial clusters. Industrial clusters in China, 2006. Retrieved October, 23, 2007, from <http://www.chinacluster.org>. [in Chinese]
- [13] Porter, M.E. Location, competition, and economic development: Local clusters in a global economy. Economic Development Quarterly, 2000, 14(1), 15-34
- [14] Smith, A. An inquiry into the nature and causes of the wealth of nations. London, Methuen, 1776 (1904, 5th ed.)

Psychological Capital and Strategic Management: Moving Psychological Capital to a Strategic Level

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ABSTRACT

As the core construct in positive organizational behavior (POB), PsyCap has been conceptually developed and empirically tested in recent years. This paper attempts to move PsyCap research to the upper level of the management by applying PsyCap to the process of strategic management. After briefly reviewing literature in PsyCap and strategic management process, we provide propositions linking PsyCap with four identified components of strategic process, goal setting, environment analysis, strategy formulation, and strategy implementation. The call for further research and the implications of applying PsyCap into strategic management conclude the paper.

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INTRODUCTION

Drawn from positive psychology and the recent emergence of positive organizational behavior (Luthans, 2002a, 2002b; Wright, 2003), Psychological Capital or simply PsyCap was proposed, and the positive relationship between PsyCap and job performance (Luthans, Avolio, Walumbwa, and Li, 2005), job satisfaction (Luthans, Avolio, Avey, and Norman, 2007), and work attitude (Avey, Youssef, and Luthans, 2008) have been empirically studied. Although these studies provided supportive results, studies to date mainly focus on the low level of the organization in that data for the empirical studies was collected from employees, workers in factories, or engineers (Luthans et al, 2005, 2007b; Avey et al, 2008). The importance of decisions making and management from the upper level of an organization implies a need to explore the influence of different

levels of PsyCap on the process of strategic management.

To synthesizing Psycap and strategic management, we proceed the discussion as follows. A brief review of PsyCap is first provided followed by the analysis of strategic management from a psychological/cognitive perspective, providing an underlying, theoretical foundation for this study. Four key processes of the strategic management, goal setting, environment analysis, strategy formation, and strategy implementation are identified, and corresponding propositions are developed by applying PsyCap into the four processes. Lastly, the article concludes with a summary of contributions of linking PsyCap and strategic management and the practical implications.

What is PsyCap?

In reaction to the fact that almost exclusive preoccupation that psychology had given to the negative, pathological aspects of human functioning and behavior, a positive psychology movement emerged in the last several years (Seligman, 1998, 1999). This movement advocates that research in psychology should discover “not only how to make work less boring but how to find flow and meaning in work.” (Seligman, 2003, p.xix). Positive organizational behavior or POB was introduced to bring positive psychology to the workplace (Luthans, 2002a; Luthans, 2002b, Luthans et al, 2007b). To be included in this conception of POB, the following criteria must be met: (1) grounded in theory and research; (2) valid measurement; (3) relatively unique to the field of organizational behavior; (4) state-like (i.e., open to development as opposed to trait-like and thus relatively fixed); and (5) have a positive impact on sustainable performance (Luthans, 2002a,b; Luthans & Youssef, 2004; Luthans, Youssef, & Avolio, 2007, Luthans, 2008). To date, among various positive psychological constructs, confidence/efficacy, optimism, hope, and resiliency have been determined to best meet the POB operational definition and

inclusion criteria (Luthans, 2002a; Luthans & Youssef, 2004).

These four constructs have been developed and empirically tested as the components of the higher-order and state-like construct-PsyCap. Therefore, PsyCap can be viewed as the combination and interaction of the four above capacities of self-efficacy, hope, optimism, and resiliency. PsyCap then can be considered a multi-dimensional construct and thus be defined as follows: An individual's positive psychological state of development that is characterized by: (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals, and when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resiliency) to attain success (Luthans, Youssef, & Avolio, 2007a, p. 3).

The composite concept of PsyCap has been demonstrated to account for more variance in employee performance and job satisfaction than its four individual components (Luthans et al., 2007a, 2007b). Moreover, the competing measurement models and usefulness analysis shows indicate that PsyCap was best be measured as a second order factor and was more consistently related to both performance and satisfaction than the each of the components (Luthans, Avolio et al., 2007). So far, the extensive research on PsyCap has covered the relationship with performance, working attitude, job satisfaction (Luthans et al, 2005, 2007; Avey et al, 2008). To the best of our knowledge, there is no research on how PsyCap influence the process of decision-making and strategic management. To fill this void, we analyze the strategic management from psychological perspective providing a theoretical background in which PsyCap functions.

Strategic Management as a Psychological/Cognitive Process

Given the complex organization and competitive environment, a formal process is necessary to ensure that strategic analysis and decisions are made and carried out in a coordinated, integrated manner (Digman, 2008). Different researchers in strategy made their contribution to develop models to capture the strategic management in organizations (Schendel and Hofer, 1979; Chandler, 1962; Andrews, 1980). Based on these views and our research orientation, we outlined four major and most common processes: goal setting, environment analysis, strategy formation, and strategic implementation. Admittedly, other processes such as clarifying value, mission of the organization are also important components of this whole process model. The four outlined components, however, are more operation-oriented and explicit, making them more consistent with the research focus in current study. Although research on PsyCap has spanned to organizational or collective level, current studies on

PsyCap still mainly focus on the micro-level and develop our propositions based on the individual (managers) level in the following part.

PsyCap and Strategic Management Process

Goal Setting

A goal defines what a firm wants to accomplish and provides direction and focus for all the following strategic process. It provides a direction guiding people's behavior and their thoughts and actions to one outcome rather than another (Luthans, 2008). This goal setting process involves manager's psychological activities such as envisioning, contemplating and prioritizing a hierarchical set of goals which are right, proper and worthwhile (Barnes, 1984; Stubbart, 1987, 1989; Hodgkinson et al, 1999).

Proposition 1: PsyCap is positively related to the challenging level of goal setting.

Environment analysis

The next process of strategic management is to analyze the environment of the organization. There are basically two kinds of environment analysis, external and internal. External environment consists of factors over which the organization has little direct control. The changes in external environment bring threats or opportunities to a firm (Schendel and Hofer, 1979; Chandler, 1962; Andrews, 1980). Internal environment analysis covers the competence and resources of a firm, which can be categorized into strengths and weaknesses. Since this analysis process depends on significant intellectual skills and perceptions about current and future environment, different managers may have different understanding and forecasting even when they are faced with similar environment.

Proposition 2: Managers with higher level of PsyCap will see more opportunities from external environment than those with lower level of PsyCap.

Proposition 3: Managers with higher level of PsyCap will see more strengths from internal environment than those with lower level of PsyCap.

After setting the goal and gathering information from environment, managers now move to determine the strategic options, or alternative means by which the organization can meet the goal, by exploiting the resources and competences (Schendel and Hofer, 1979; Chandler, 1962; Digman, 2008). As proposition 3 and 4 asserts, Managers with higher level of PsyCap tend to perceive the environment positively, more opportunities from the outside and more strengths from the inside. Managers form the strategic plan based on the interpretation and forecasting of environment analysis. For example, if a manager see more opportunities and are confident about the resources they have to pursue the opportunities, more aggressive strategy will be formed (e.g. more investment, new products). However, the miserable understanding of the environment either external or internal would lead to the much more prudent strategy like organization deduction, less R&D activities, and market withdrawal. Given the fact that internal and external environment is one of the determining factors to the following strategy

formation, the following proposition can be reasonably set forth:

Proposition 4: PsyCap is positively related to the aggressiveness of a strategy. or Managers with higher level of PsyCap make more aggressive strategies.

Strategic implementation

The strategy formation is followed by the critical strategy implementation phase. It is clear that strategy implementation counts on deliberate thoughts about the organizational ramifications of changing strategies, conscious anticipations of roadblocks to implementation, on problem-solving, and on logic (Stubbart, 1989).

Proposition 5: the level of PsyCap is positively related to the strategic implementation.

Discussion and Implications: Toward Strategic PsyCap

Thanks to the ground breaking work of Luthans and his coworkers, PsyCap with its four so-far-identified capacities, self-efficacy, hope, optimism, and resiliency have been theoretically developed and the impact on performance, work attitude, job satisfaction has been empirically assessed (Avey et al, 2006; Luthans, 2002, Luthans and Youssef, 2004; Luthans et al, 2007a, 2007b). Although the four capacities of PsyCap have been well developed in social psychology and organizational behavior over the years, research on PsyCap, the higher order construct, is still on the starting stage (first introduced in 2004 articles of Luthans and the colleagues). This paper attempts to introduce this construct into strategic management process. Specifically, it addresses the question how managers with different level of PsyCap behave differently in the four processes of strategic management. High level of PsyCap increases the positivity of the strategic management in that strategists tend to set higher goals, perceive more opportunities and strengths from the environment, then form more aggressive strategic plans and are more likely to accomplish the goal. Five propositions formulated above provide a fundamental framework around which future research and theory on this issue must be developed.

Theoretical implications

Expanding boundary by moving up. The main purpose of this paper is to move the research on PsyCap to the upper level of the organization by linking the research on PsyCap and strategic management process. The contribution of current study can be discussed in these two perspectives. PsyCap mainly deals with the human psychological state and its impact on the work performance, and the main body of research on PsyCap is still psychology and micro-level oriented (Luthans, 2002a; Luthans & Youssef, 2004; Luthans, 2007b). To date, relation between PsyCap and performance was tested and

supported by the data mainly from people on the low level of an organization, such as workers in the factories (Luthans et al, 2005), students, and engineers (Luthans et al, 2006).

Given the availability of data that can directly measure the performance, it is reasonable to focus the research on the low level at this research stage. Undoubtedly, the performance of group people on this level is very imperative to an organization, but the decisions and strategic plans made by the managers and other strategists are very crucial to the prosperity of an organizations, sometimes even can be vital. For example, if a manager makes incorrect decisions which would lead the organization to a failure, the increase in the performance pursuing this wrong direction would probably accelerate the failing process. Therefore, the study of the relation between PsyCap and the upper level management is also important to researchers and practitioners. Considered from this perspective, the current study is an initial step to expand the boundary of PsyCap research by moving PsyCap to the decision making level of an organization.

PsyCap as a linkage. The link between strategic management and cognition science and psychology has been noticed and studied over the years (Barnes, 1984; Stubbart, 1987, 1989; Hodgkinson et al, 1999; Nadkarni & Barr, 2008). For example, Stubbart (1989) showed that the managerial cognition was already a vital but neglected element in the strategic management paradigm. The chief appeal of cognitive sciences is that they promise to fill in the "missing link" between environmental conditions and strategic action. Environmental and organizational forces affect action through executives' thinking, and actions derived from thinking (Stubbart, 1987). In line with this stream, this paper makes unique contribution by assessing the impact of the specific, newly emerging construct, PsyCap, on the strategic management.

Conclusion

Applying PsyCap to strategic management process proposed in this paper is one of possible perspectives through which the future research on PsyCap can move to the upper level of the management or upper echelons. The current study is also an extension of the positive psychology movement in that we introduce the specific construct, PsyCap, into the strategy. The five propositions in this paper only address the relationship between PsyCap and strategy process, but the impact of this relationship is still an open question. However, either the positive or potentially negative impact of PsyCap on strategic management warrants further researches.

REFERENCES (Available upon request)

The Effects of Intangible Resources and Firm Performance: The Empirical Study of Thai Firms

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ABSTRACT

The purpose of this study is to empirically test the relationship between intellectual resource namely human resource, structural resource, and relational resource and business performance of firms operating in Thailand. A valid research instrument was utilized to conduct a survey of 484 firms across industry sectors in Thailand. A multiple regression analysis was conducted to test research hypotheses. A path analysis showed the direct relationship between intellectual capital components and firm performance and the inter-relationship between independent variables. The result of this study collaborated with previous research done in different nations and industry context.

Keywords: Business performance, Intangible resources, Intellectual capital, Human capital, Structural capital, Relational capital, Thailand

INTRODUCTION

Understanding why some firms outperform others is a central goal of strategic management research [9] [21]. Strategy scholars have searched for sources of sustainable competitive advantage in order to explain performance differences among firms [21] [4].

The resource-based theory (RBT) posited that the internal factors of the firm account for a significant amount of the remaining variance [21]. RBV proposes that resources are sources for sustained competitive advantage and thus should be analyzed to understand performance variance among firms [1] [3] [12]. Barney (1991) asserted that not all resources are strategically relevant but focusing on internal resources and competencies is no longer sufficient; understanding which of them are more strategic has become necessary [2].

The rises of the new economy era where knowledge and information have become intensify have changed the way businesses compete [10] [6]. The basic economic resources (i.e. natural resources, capital, or labor) are no longer being the economic resources; but it is and will be intangible resources such as intellectual capital, knowledge and intellectual property [10] [22]. Several researchers propose that intellectual capital as an intangible resource are increasingly important and may be potential sources of sustainable competitive advantage [11] [17].

Although many empirical studies have been carried out to examine intangible capital effects on firm

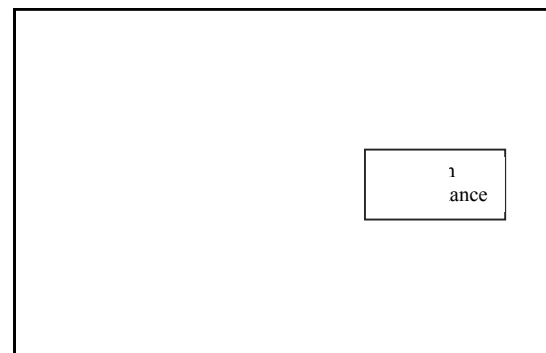
performance, most studies focus on a limited range of resource variable (i.e., an individual resource or few resources), small sample size, and single-industry focus [7]. Newbert (2007) asserted that only certain resources were selected in order to study the effect of resource on performance [17]. However, studying an individual resource (e.g. reputation, culture, human resource, etc.) may be misleading because one-dimensional studies are likely to underestimate biases by focusing on too narrow a spectrum of resource [14].

Numerous studies on the relationship between intellectual capital and firm performance have been explored in various countries including Canada [6], Sweden, Malaysia, Iran, and Jordan [22]. There is no empirical study on intellectual capital predicting firm performance variation in Thailand. Thus, there is a need to generalize the intangible resource-firm performance relationship in Thailand.

The purpose of this study is to empirically test the impact of intellectual capital on firm performance in Thailand and to examine the inter-relationship between each component of intellectual capital. Thus, the research questions for this study will be:

- RQ1: Is there a significant relationship between intellectual capital and firm performance in Thailand?
- RQ2: Is there a significant relationship between each components of intellectual capital construct?

RESEARCH MODEL



RESEARCH HYPOTHESES

- H1: Firm performance is positively associated with human capital.
- H2: Firm performance is positively associated with structural capital.
- H3: Firm performance is positively associated with relational capital.

H4: Relational capital is positively associated with human capital.

H5: Structural capital is positively associated with human resource.

H6: Relational capital is positively associated with structural capital.

RESEARCH METHODOLOGY

Population and Sampling Frame

The population for this study is defined as all for-profit businesses operating in Thailand across industries. Based on 2009 business database of the National Statistical Office, the Thai Ministry of Commerce, there were 512,816 firms. In accordance with Taro Yamane sampling table at the 95% confident level and desired accuracy within 5%, the minimum sample size of this study required at least 400. Thus, the sampling frame consisted of 4,912 firms, which were randomly selected across industry sectors and business types

Measurement and Constructs

The survey instrument is developed and adapted from past research, the survey contains 82 measurement items are divided into 4 constructs: firm performance, human capital, structural capital, and relational capital [6] [7]. All measurements were obtained through self-report measures on a five-point scale.

Dependent Variable

Firm performance is an ability to achieve results in relation to its goals, which can be both financial measures and non-financial measures. Firm performance is a multi-dimensional construct containing 10 subjective self-report items included: (1) sales growth, (2) profit growth, (3) overall business performance, (4) new product or new service launch, (5) cost reduction, (6) quality improvement, (7) new market penetration, (8) new customer attainment, (9) customer satisfaction improvement, and (10) customer retention improvement. Respondents were asked to evaluate performance improvement of their own firm in comparison with its target or expectation over the past 3 years. Three years time frame is applied as it reflects the sustainability of competitive advantage and represent long-term period [19]. All measurement items of firm performance use 5-point Likert scales ranging from 1 (much lower) to 5 (much higher).

Independent Variables

Human capital are set of values, attitudes, aptitudes and capacities of the employees in which they can generate firm's value [6]. Operationalization of human resources consists of 24 items that capture dimension of 4 sub-variables namely: (1) employee's competences, (2) employee's education, (3) employee's attitude, and (4) employee's creativity. The human resources measure is adapted from various research studies [6] [7] [15] [8] [22].

Structural capital refers to organizational infrastructure that "remains in the company when employees go home for the night" [20, p. 42]. Operationalization of structural resources consists of 24 items that capture dimension of 4 sub-variables namely: (1) organizational culture, (2) organizational structure, (3) organizational system, and (4) organizational IT. The structural resources measure is adapted from various research studies [6] [7] [15] [8] [22].

Relational capital refers to the firm's relations to its stakeholders such as corporate image, corporate reputation, trust, contract, partnership, and relationship with stakeholders. Operationalization of relational resources consists of 24 items that capture dimension of 4 sub-variables namely: (1) corporate reputation, (2) market orientation, (3) customer trust, and (4) partnership. The structural resources measure is adapted from various research studies [13] [6] [7] [15] [16] [8] [22].

All measurement items of 3 main independent variables use 5-point Likert scales ranging from 1 (strongly disagree) to 5 (strongly agree).

Data Collection

The questionnaire was translated into Thai language and back translated into English. The questionnaire was reviewed and refined to ensure face validity and content validity by faculty members in the Department of Management at the University of Nebraska-Lincoln and Bangkok University-Thailand.

Then, the first version of questionnaire is pre-tested by a convenient sample of 63 mid-level managers of firms in various industry sectors. The questionnaire is revised for accuracy, clarity, and completeness to ensure the construct reliability and validity and to improve its psychometric characteristics.

Data were gathered in mid of February 2011 until mid of March 2011 by sending questionnaires to the Chief Executive Officers or Managing Director of randomly selected companies by post. 4,912 questionnaires were sent out but 287 surveys were returned with wrong address. By the end of the data gathering, 546 companies were returned; but only 484 were completed and usable giving an effective response rate of 10.44% after adjusted for wrong address.

Data Analysis

The collected data were analyzed for demographic data, reliability, factor analysis, pearson's bi-variate correlation, and multiple regression analysis with SPSS17.0 statistical program.

RESULT

Demographic Data

Data was break down by years in operation, employee amount, 2009 Income, industry type, business type, and industry sector. The usable samples were from

manufacturing 16.7%, service 38.8%, and trading 44.4%.

Table 1: The reliability and validity of variables

Variables	Items	α	Eigen	%VE
Human Capital	16	0.942	8.561	53.504
Structural Capital	16	0.934	8.052	50.325
Relational Capital	16	0.934	8.028	50.173
Firm Performance	10	0.888	5.006	50.060

Table 1 showed that the Cronbach's alpha results of 4 constructs are above 0.70 threshold [18] and consistent with previous studies [5] [6]. To confirm convergent and discriminant validity, factor analysis was conducted with and without rotation (i.e. varimax rotation with Kaiser normalization). After eliminate some items, all remaining items for four variables were confirmed valid since their factor loading values were more than 0.6. This result mirrors previous studies [5] [6] [22] [24].

Table 2: The correlation matrix of variables

Variable	HC	SC	RC	FP
Human Capital	1.000			
Structural Capital	.670**	1.000		
Relational Capital	.641**	.769**	1.000	
Firm Performance	.495**	.514**	.639**	1.000

** Correlation is significant at the 0.01 level (2-tailed)

Table 2 showed that all three components of intellectual capital have a substantive and significant relationship with firm performance.

Table 3: The regression result of hypotheses testing

Hypotheses	Beta	T	Sig	Result
H1: HC => FP	.140	2.766	.006	Support
H2: SC => FP	.038	.633	.527	Not Support
H3: RC => FP	.511	8.730	.000	Support
H4: HC => SC	.670	19.403	.000	Support
H5: HC => RC	.219	5.516	.000	Support
H6: SC => RC	.619	15.569	.000	Support

Table 3 summarized hypotheses testing of this study. The multiple regression of firm performance (DV) and three components of intellectual capital obtained R^2 of .407. The multiple regression of relational capital obtained R^2 of .613. The regression of structural capital obtained R^2 of .448.

DISCUSSION

The findings of this study support both research questions. The result showed that relational capital and human capital has direct effect on firm performance in Thai firms. These results are collaborated and other previous studies in other nations (i.e. Canada, Jordan, Malaysia, Taiwan) and industries (i.e. service, non-service, pharmaceutical, banking, engineer consulting) context.

Path Analysis

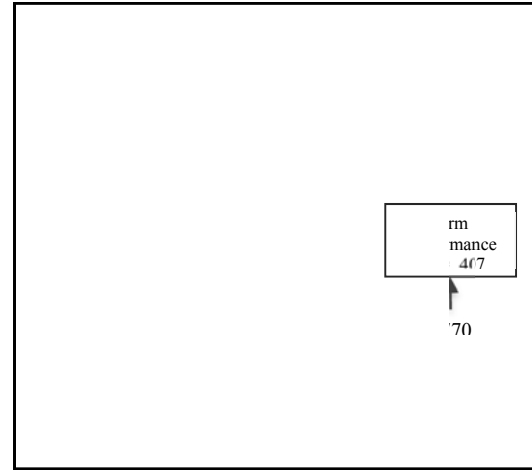


Table 4: The Comparison of Explanatory Power (R^2)

	Current Study	Sharabati et al. (2010)	Bollen et al. (2005)	Wang Chang (2005)	Bontis (1998)
HC		.419	.522	.344	
SC	.488	.309	.535	.337	.249
RC	.622	.450	.455	.401	.245
FP	.407	.517	.192	.568	.560

RECOMMENDATION

This study represents a foundation in elevating intellectual capital concept for Thai businesses. It also suggested that intellectual capital as a intangible resource effect firm performance as asserted by RBV theory. This empirical study supported the relational capital is the most predictors of firm performance variance in Thai firm. Thus, Thai business should emphasize on developing its relational capital through market orientation, customer trust, reputation, and partnership in order to attain competitive advantage in the new economy.

The limitation of this study is the common method bias that further research is needed to use secondary data for firm performance. Another limitation is that the explanation power of intellectual capital that explain firm performance variance was only 40%; thus, future research is needed to explore other constructs such as organizational capability, dynamic capability, and knowledge management. In addition, future research should explore on the sub-component and antecedent of intellectual capital. Moreover, future research should study more on the interaction effects among component of intellectual capital on firm performance.

REFERENCES

(Available upon requested)

Service Profit Chain of Chick-fil-A Restaurant

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ABSTRACT

Since it opened in 1967, Chick-fil-A restaurant has become the second largest quick-service chicken restaurant in United States. Since the inception, Chick-fil-A has posted 43 consecutive annual sales increases. There are reasons for those lofty figures. The success of Chick-fil-A franchise has partly been attributed to their unique customer value and to the service experience offered to their customers. The purpose of this study is to investigate the key factors of its operational excellence by using service profit chain model. According to service-profit chain model, a firm's operating strategy and service delivery system could offer better service value to customers and service value drives better customer loyalty and finally financial performance. It was found that Chick-fil-A has established the strong customer and employee loyalty over 40 years.

1. INTRODUCTION

Chick-fil-A restaurant is the second largest quick-service chicken restaurant in United States, behind KFC. As of March 2011, Chick-fil-A operates and franchises 1,546 restaurants in 39 states and the District of Columbia. Though concentrated in the southeastern United States, the franchise has expanded into more of the country. Annual sales in 2010 reached \$3.58 billion. These figures reflect an 11.37 percent increase over the chain's 2009 performance and a same-store sales increase of 5.62 percent. Since the first Chick-fil-A restaurant opened in 1967, the company has posted 43 consecutive annual sales increases [1].

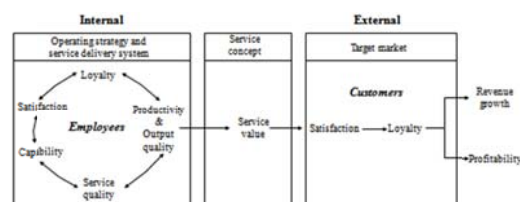
There are reasons for those lofty figures mentioned above. The success of Chick-fil-A franchise has partly been attributed to their unique customer value and to the service experience offered to their customers. The purpose of this study is to investigate the key factors of its operational excellence by using service profit chain model. According to service profit chain model, a firm's operating strategy and service delivery system could offer better service value to customers and service value drives better customer loyalty and finally financial performance. This paper explains the success story of Chick-fil-A in terms of service profit chain model.

2. SERVICE PROFIT CHAIN MODEL

The concept of service profit chain was first introduced in Harvard Business Review by Heskett et al. in 1994 and was published as a book, "The Service Profit Chain", in 1997 [2][3]. The service profit chain is a theory and business model and is still an impressive tool explaining a service excellence of service organizations which resulted in financially outstanding performance over decades.

The service-profit chain establishes relationships between profitability, customer loyalty, service value, and employee satisfaction and productivity. As shown in FIGURE 1, links in the chain are as follows: Profitability and revenue growth are stimulated primarily by customer loyalty. Loyalty is a direct result of customer satisfaction that is largely influenced by the perceived value of the service. Service value is created by satisfied, committed, capable, and productive employees. Employee satisfaction, in turn, results primarily from high-quality support services and policies that enable employees to serve customers better. Heskett et al. have collected empirical evidence from 20 large service organization, lending support to many of the linkages in the chain.

FIGURE 1 Service Profit Chain



The service-profit chain research suggests that customer loyalty is the key determinant of profitability and indicates that a 5% improvement in customer loyalty results in a 25-85% improvement in profits. In order to make a customer loyalty, the service organization especially has to focus on building an employee loyalty. Heskett et al. also suggested the concept of satisfaction mirror in their book. The satisfaction mirror explains the

direct and strong relationship between customer and employee satisfaction. Heskett et al.'s service profit chain and satisfaction mirror has contributed to the diffusion of the notion that the satisfaction and performance of employee is critical to the provision of customer service and business performance [4].

This study is purposed to explain the operational excellence of Chick-fil-A restaurant by adopting the service profit chain model. Chick-fil-A case will be discussed by the following links:

1. Customer loyalty drives profitability and growth
2. Customer satisfaction drives customer loyalty
3. Service value drives customer satisfaction
4. Employee retention and productivity drives service value
5. Employee satisfaction drives retention and productivity
6. Internal quality drives employee satisfaction

3. CASE STUDY: CHICK-FIL-A RESTAURANT

Chick-fil-A's mission is "Be America's Best Quick-Service Restaurant" and its slogan is "We Didn't Invent the Chicken, Just the Chicken Sandwich". Truett Cathy, the founder of the chain, started to make chicken sandwich stemmed from the idea of creating a quick way to serve food and has emphasized the simple rules: listen to the customer, focus on getting better before trying to get bigger, and put emphasis on quality. In order to accomplish the mission, Chick-fil-A has set the unique operations strategy, distinguished marketing campaign, higher service quality, and employee relations.

Chick-fil-A became the second largest quick-service chicken restaurant in the country and one of the nation's largest privately held restaurant chains. Chick-fil-A has competed with giant fast-food restaurants such as McDonald's, Burger-King, and Wendy's that sells hamburgers as their primary food products and usually resort to price promotions and movie tie-ins to attract customers. In contrast, Chick-fil-A's signature product is the chicken sandwich as a "healthier" alternative to hamburgers. Also, its chicken sandwich needs less time to prepare and cook that offers competitive advantage with speed and awareness to health.

Chick-fil-A has outperformed its competitors in sales revenue growth shown in TABLE 1. This is especially impressive because Chick-fil-A is priced higher than any fast food restaurant with no "Dollar Menu" and closes on Sundays.

TABLE 1 Facts in 2009

	Chick-fil-A	McDonald's	Yum Brands	Wendy's/ Arby's
Total # of Units	1,500	32,478	37,080	10,259
Total Store Revenue	\$3.2 billion	\$72.39 billion	\$9.4 billion	\$12.1 billion
Avg Revenue/Unit	\$2,130,000	\$2,228,293	\$1,226,193	\$1,179,452
Store Revenue Growth	8.60%	2.40%	-4.40%	N/A
Comp Sales Growth	2.52%	3.80%	-5.00%	-3.64%

1. Customer loyalty drives profitability and growth

Since opened in 1967, Chick-fil-A has posted 43 consecutive annual sales increases. Companies which has earned exceptional growth for a long time has built the strong customer loyalty. Chick-fil-A has been named on one of companies that offer positive experience and hold customer loyalty with Starbucks, Southwest Airlines, Harley-Davidson, USAA and Enterprise Rent-a-Car.

2. Customer satisfaction drives customer loyalty

Whenever Chick-fil-A opens new stand-alone restaurant, hundreds of customers stay two or three days to be a first customer of new units that can have one year free meal and enjoy with excitement playing music or sports. Moreover, Chick-fil-A is the First Restaurant Chain with 1 Million Facebook Fans on August 21st, 2009.

Chick-fil-A is known for their "Eat Mor Chikin" cow ads, which encourage customers to eat more chicken and conserve beef in the process. As a extension of this marketing campaign, Chick-fil-A has Cow Appreciation Day each year that offers a free Chick-fil-A meal for customers who wear full cow costumes. In 2010 more than 300,000 cow-clad customers stampeded Chick-fil-A restaurants across the country. These efforts have converted satisfied customers to loyal fans by making them have great passion and unique experience.

3. Service value drives customer satisfaction

The success of Chick-fil-A is based on the various values offered to customers. High quality, fast delivery, healthy food, and excellent customer service helped sustain high level of customer satisfaction. Chick-fil-A has been honored with the following awards: J.D. Power and Associates Restaurant Satisfaction Study "Top QSR Restaurant Brands in Customer Satisfaction" (2010), QSR Magazine honors for "Best Drive-Thru in America" (2009), Restaurants and Institutions magazine's "Choice in Chains" Customer Satisfaction Award (2009).

4. Employee retention and productivity drives service value

On average, fewer than 5 percent of Chick-fil-A Operators leave the chain in any given year, with most remaining with the company for more than 20 years.

5. Employee satisfaction drives retention and productivity

Dan Cathy, president of Chick-fil-A, told his stores' managers recently, "When you see an employee enduring a personal hardship, we want you to go above and beyond for that person. And when you do, you will have their full attention when you talk about going above and beyond for our customers." [6]

Chick-fil-A started the Leadership Scholarship program to encourage employees to further their Education by offering \$1,000 to qualifying employees in 1973. At that time, the program was the only one of its kind offered by a quick-service restaurant chain. This program also emphasizes on a restaurant employee's community service and leadership abilities. Through its Leadership Scholarship program, Chick-fil-A has offered more than \$26 million in financial assistance to 25,000-plus restaurant team members who have attended 2,138 colleges, universities and other educational institutions throughout the country. In 2010, the

company awarded more than \$1.9 million in scholarships to its restaurant team members [7].

6. Internal quality drives employee satisfaction

Chick-fil-A has retained a variety of program to support employees. It gives all employees Sunday off, a practice unduplicated in the fast food industry. The practice of closing on Sunday policy has made franchised operators and employees rest and spend time with their family and friends, and worship if they choose to do so.

4. CONCLUSION

This study had an effort to explain the service excellence of Chick-fil-A restaurant chain, especially enhancing customer experience and employee loyalty. The lessons from Chick-fil-A will contribute on the success of any restaurants which want to build customer and employee loyalty.

REFERENCES

- [1] <http://www.chick-fil-a.com/Company/Highlights-Fact-Sheets>
- [2] Heskett, J.L., Jones, T.O., Loveman, G.W., Sasser, W.E., and Schelsinger, L.A. Putting the Service Profit Chain to Work, Harvard Business Review, 1994, 72(2), 164-174
- [3] Heskett, J.L., Sasser, W.E.Jr., and Schlesinger, L.A. The Service Profit Chain: How Leading Companies Link Profit and Growth to Loyalty, Satisfaction, and Value. The Free Press, New York, 1997
- [4] Silvestro, R. and Cross, S. Applying the Service Profit Chain in a Retail Environment: Challenging the "Satisfaction Mirror", International Journal of Service Industry Management, 2000, 11(2), 244-268
- [5] <http://mattivkovich.com/blogs/food-service-industry/industry-insight-the-chick-fil-a-model/>
- [6] <http://www.workforce.com/section/hr-management/feature/eight-ways-keep-your-people-focused-fired-up-an/>
- [7] <http://www.truecathy.com/pdfs/ScholarshipFactSheet.pdf>

Effects of Organizational Rewards on Emotional Labor and Organizational Commitment

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ABSTRACT

This study examined the effect of organizational rewards between emotional labor and organizational commitment. Data was collected from questionnaires completed by 419 airline cabin crews.

1. INTRODUCTION

When customers choose an airline to use, the quality of human service is as much important factor as physical service [1]. This is because the quality of inflight service can be improved by the attitude of cabin attendants who comes face to face with customers in a point of contact [2]. Proper rewards and display rules are important organizational system for inducing cabin attendant to organizational commitment to developing positive job attitude. Emotional labor and organizational commitment have been widely studied because of their critical effects on efficiency and effectiveness [3] [4].

Airlines adjure cabin attendants to show positive emotion with intimate and proactive manner in a point of contact, because they believe that service attitude of cabin attendants contribute to the improvement of firms' profits [5] [6]. While struggling to alter their emotions to fit organizational norms and expectations, employees perform emotional labor [7]. Emotional labor refers to the efforts of workers who are expected to display certain emotions as part of their job and to promote organizational efficiency. Organizations can expect positive results from emotional labor of members when there is an agreement between personal and organizational goals. However, if there are discorded goals between an organization and its members, emotional workers will experience exhaustion and stress from job conflict. As a result, the organization may have a negative impact by increased job turnover rate [8].

Previous research on organizational commitment of cabin attendants, however, has focused on empowerment, organizational reliability, work related stress, and fairness. Therefore, this study set on the purpose to offer insight on organizational rewards, organizational commitment and their relationship.

2. THEORETICAL FRAMEWORK

2.1 Social Exchange Theory

Social exchange theory (SET) is one of the most influential conceptual paradigms to understand workplace attitude and behavior of individual [9][10].

Within SET, every individual has a self-interest including both economic and non-economic factors and interacts with others to fulfill one's own self-interest. According to SET, the nature of human is a reward organism in which takes useful tasks and avoids harmful tasks. People discriminate useful and harmful tasks from past experience.

In a series of interactions between individual and organizations, two major kinds of exchange occur. First, traditional research has focused on economic exchange. According to those studies, individuals evaluate the expense and the benefits from social exchange with organizations and decide whether they continue their relationships with organizations [11]. In economic social exchange perspective, attitudes of individuals toward an organization including organizational commitment depend on the economic results from the exchange and the evaluation of the process which affects the results. Second one is social and emotional exchange. There are social and emotional desires, such as recognition, self-esteem, participation, and respect, between an individual and an organization, and fulfilling these desires are very important to continue the relationship [12][13][14].

Barnard (1938) found that the level of willingness of employees to contribute to an organization is different and it reflects the satisfaction or dissatisfaction that they will experience in the future [15]. Homans (1961) argued that the quality of reciprocity between an individual and an organization depends on the level of reward [16]. In social exchange prospective, employees who are satisfied with organizational reward will contribute to an organization voluntarily. According to SET, an organization offers rewards to compensate contribution of employees and employees commit to the organization to compensate the reward given from the organization [17][18][4]. In this study,

we consider organizational reward as a critical factor for organizational commitment. Emotional labor and organizational commitment are described as positive emotional display and self-efficacy, respectively because a person with high self-efficacy tends to have strong concentration which enables employees to overcome difficulties and it affects to organizational commitment [19]. In practice, Mathieu and Zajac (1990) revealed that self-efficacy is positively related to emotional concentration [20].

Hypothesis 1: Organizational reward has a positive effect on employees' emotional labor.

Hypothesis 2: Organizational reward has a direct effect on employees' organizational commitment.

2.2 Theory of Reasoned Action

Theory of reasoned action (TRA) is based on the theoretical assumption that humans are rational and use information systematically [21][22]. Leidner (1999) argued that organizations employ four ways to fortify emotional labors of service employees [23]. First, organizations make applicants to prepare requirements of job duty in advance through selection process. Second, once employees are hired, organizations use techniques to instill organizationally favored attitudes and to teach new staff how to perform their jobs and comply with rules. Third, organizations with service workers make efforts to regulate the feelings and actions of those who work with the public with detailed specification of conduct. Finally, organizations set up surveillance systems controlling employees' emotional labor and behavior. Cabin attendants should perform emotional labor continuously regardless of their personal emotions. Therefore, they might try to express positive emotions in deep acting when their goals are coincided with organizational goals, whereas they still might struggle to express positive emotions in surface acting even when their goals are not coincided with organizational goals. This process generates self-efficacy and, ultimately, organizational commitment. In this sense, normative commitment in here means the commitment driven by a sense of duty

Hypothesis 3: Emotional labor has a positive effect on organizational commitment.

Hypothesis 4: Emotional labor mediates the relationship between Organizational reward and organizational commitment.

REFERENCES

- [1] Bruning, E.R., & Hu, M.Y. Profitability, firm size, efficiency, and flexibility in the U.S. domestic airline industry. International Journal of Transportation Economics, 1988, 15(3), 313-327
- [2] Kim, N.Y., & Cho, M.H. Structural relationship of employees' perception on organizational ethical value, organizational ethical climate and job satisfaction in tourism industry. The Tourism Sciences Society of Korea, 2008, 32(4), 167-191
- [3] Hochschild, A.R. Emotion work, feeling rules, and social structure. American Journal of Sociology, 1979, 85, 551-575
- [4] Mowday, R.T., Porter, L.W., & Steers, R.M. Organizational Linkage: The psychology of commitment, absenteeism, and turnover. New York: Academic Press, 1982
- [5] Goffman, E. The Presentation of Self in Everyday Life. Harmondsworth: Penguin, 1969
- [6] Rafaeli, A., & Sutton, R.I. Expression of emotion as part of the work role. Academy of Management Review, 1987, 12(1), 23-37
- [7] Hochschild, A. Emotion work, feeling rules, and social structure. In Greco, M., Stenner, P. (Eds.), Emotions: A social science reader (pp. 121-126). New York, NY US: Routledge/Taylor & Francis Group, 2008
- [8] Lee, D.M. Effect of emotional labor and social support on burnout of airline cabin attendants Journal of Tourism Sciences, 2008, 32(2), 213-231
- [9] Blau, P.M. Exchange and Power in Social Life. Wiley, New York, 1964
- [10] Homans, G.C. Social Behavior: Its Elementary Forms. New York: Harcourt, Brace and World, 1961
- [11] Tyler, T. R., & Lind, E. A. A relational model of authority in groups. In Zanna, M. (Ed.). Advances in Experimental Social Psychology, 1992, 25, 115-191
- [12] Armeli, S., Eisenberger, R., Fasolo, P., & Lynch, P. Perceived organizational support and police performance: The moderating influence of socio-emotional needs. Journal of Applied Psychology, 1998, 83, 288-297
- [13] Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. Perceived organizational support. Journal of Applied Psychology, 1986, 71, 500-507
- [14] Shore, L., Tetrick, L.E., Sinclair, R.R., & Newton, L.A. Validation of a measure of perceived union support. Journal of Applied Psychology, 1994, 79(6), 971-977

- [15] Barnard, C.I. The functions of the executive. Massachuestts: Harvard University Press, 1938
- [16] Homans, G.C. Social behavior : Its elementary forms. New York: Harcourt, Brace and World, 1961
- [17] Lawler, E.E. III. Motivationin Work Organizations. CA: Brooks/Cole Monterey, 1973
- [18] Mottaz, C. J. Determinants of organizational commitment. Human Relations. 1988, 41, 467-482
- [19] Bandura, A. Self-efficacy: The exercise of control. NewYork: Freeman & CO., 1997
- [20] Mathieu, J. E., & Zajac, D. M. A review and meta-analysis of the antecedents, correlates and consequences of organizational commitment. Psychological Bulletin, 1990, 108, 171-194
- [21] Ajzen, I. Attitudes, personality, and behavior. Chicago: Dorsey, 1988
- [22] Fishbein, M., & Ajzen, I. Belief, attitude, intention, and behavior; An introduction to theory and research. Reading, Massachuestts: Addison-Wesley, 1975
- [23] Liender, R. Emotional labor in service work. Annals of the American Academy of Political and Social Science, 1999, 561, 81-95

The Effect of the Servicescape on Customers' Behavioral Intentions in International Airport Service Settings

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ABSTRACT

The study reported here is divided into two parts. First, the determinants of the international airport servicescape are identified: ambient factors, design factors, and social factors, and safety factors. Second a research model is proposed to examine the relationships between the international airport servicescape and emotional states, attitudes, and behavioral intentions. The data collection remains for a future study.

INTRODUCTION

The importance of service environments has been emphasized in the service area. The term 'servicescape' is the physical surroundings where services are provided [8]. The compound word servicescape is formed from the words 'service' and 'scape' in the same pattern as 'landscape'. Servicescape has been studied for decades in various service settings such as hotels, restaurants, casinos, etc. However, there are no studies on the effect of servicescape in airports. Thus, this paper will contribute academically and practically by examining the servicescape initially in an international airport setting.

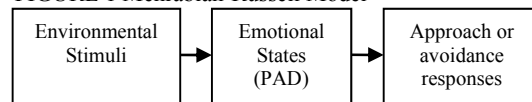
LITERATURE REVIEW

Environmental Psychology: Stimulus-Organism-Response Model

The study of servicescape was drawn from environmental psychology that researched the interrelationship between physical environment and human behavior. Environmental psychology can be summarized in the Mehrabian-Russell's Model (see Figure 1) which describes the stimulus-organism-response (S-O-R) paradigm. In this context, physical surroundings are the stimulus (S) that influences emotional states (O) that affect, in turn, behavioral responses (R) [20] [12]. In the S-O-R model,

Mehrabian and Russell [20] identified three emotional states: pleasure, arousal, and dominance (or PAD emotions). Pleasure involves such feelings as happy as opposed to unhappy, pleased as opposed to annoyed, or delighted as opposed to sad. Arousal can be indicated by such feelings as stimulated as opposed to relaxed, excited as opposed to calm, or frenzied as opposed to sluggish. Dominance is indicated by such feelings as controlling as opposed to controlled, influential as opposed to influenced, or in-control as opposed to cared-for [14].

FIGURE 1 Mehrabian-Russell Model



Adapted from [20]

Behavioral responses are divided into two types of behavior: approach and avoidance. Approach behaviors consist of positive responses such as the desire to stay, explore, affiliate and work, and avoidance behaviors involve negative responses such as the desire not to stay, explore, affiliate and work [20].

Servicescape

The interest of academic management studies in environmental psychology can be traced back to the studies of Kotler [17] and Baker [5]. Kotler [17] introduced the concept of atmospherics as a marketing tool and defined the physical environment as 'the design of buying environments to produce emotional effects in the buyer that enhance his (or her) purchase probability.' Baker [5] described how physical environment affects customers' judgments for services. Based on these studies, Bitner [8] coined the term 'servicescape' defined as the physical surroundings

where services take place. With the servicescape model, Bitner [8] argued that environmental dimensions cause customers' and employees' internal responses- cognitive, emotional, and physical states that affect customers' and employees' behaviors. According to Ezeh and Harris [14], Bitner's study has been supported by many researchers. For example, Zeithaml et al. [31] demonstrated the physical evidence is used by customers to evaluate the service before purchase and to assess the outcome of service during and after service consumption.

Service Environments of International Airports

Service environments of international airports can be largely categorized into landside and airside, which can further be divided into external and internal area. (see Table 1) [13]. Because every area except for external airside is exposed to customers and evaluated by customers, each area needs to be well maintained for excellent international airport services.

TABLE 1 Service Environment Typology of International Airport

	EXTERNAL	INTERNAL
LANDSIDE	<ul style="list-style-type: none"> - Access road - Car parking - Coach area - Car rental facilities - Transportation links 	<ul style="list-style-type: none"> - Terminal passenger capacity - Ticket desks - Check-in area/facilities - Pre-security documentation check - Arrivals hall area - Onward travel facilities
	Access Gates	Security Search Area
AIRSIDE	<ul style="list-style-type: none"> - Airside coaching operation - Baggage handling - Stand management and supervision 	<ul style="list-style-type: none"> - Lounge and shopping area - Departure gates and processing - Inbound immigration process - Passenger transfer facilities - Baggage reclaim area

Adapted from [13]

Servicescape Variables

Researchers have suggested several determinants of servicescape (see Table 2). There are no unified servicescape determinants for all service organizations; in other words, servicescape determinants vary with the nature of service or service industries. However, there are common factors such as layout or design which can be applied in general to service environments. While most studies included the objective physical surroundings of the service firm, Baker [5] and Turley & Milliman [24] considered human (social) factors, as well as physical factors in servicescape.

In the current study, Baker [5]'s typology is adopted, because it covers intangible, tangible, and human (social) factors. Human stimulus, as well material stimulus, plays a significant role in affecting behaviors, and the performance of the human (social) factors can enhance or hinder the service experience [3]. Table 3

specifies three factors: ambient, design, and social factors.

As noted above, determinants of servicescape vary depending on the target customers' needs. The context of this study is international airports where customers' needs may be related to safety factors due to the nature of airport service (e.g. security accidents such as terror or emergency landing). Thus, this study adds safety factors as a unique feature of the international airport servicescape.

TABLE 2 Components of the Physical Environment

Study	Environmental components
Westbrook (1981)	Layout / Spaciousness / Organization / Cleanliness / Attractiveness
Booms & Bitner (1982)	Architecture / Lighting / Temperature / Furnishings / Layout / Color
Baker (1987)	Ambient factors / Design factors / Social factors
Bitner (1992)	Ambient factors / Spatial layout and functionality / Signs, symbols and artefacts
Berman & Evans (1995)	Store exterior / General interior / Layout and design / Point-of-purchase / Decoration variables
Turley & Milliman (2000)	Exterior / General interior / layout and Design / Point-of-purchase and Decoration / Human factors
Zeithaml et al. (2006)	Facility exterior / Facility interior

TABLE 3 Servicescape Typology

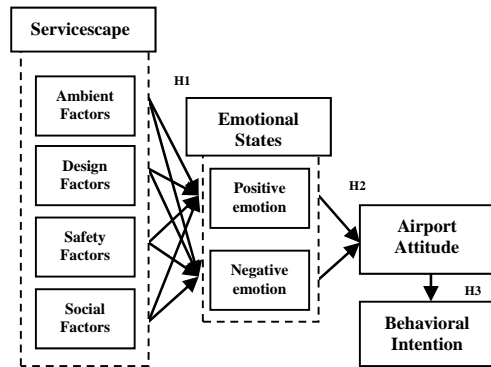
Factors	Definition	Examples
Ambient	Background conditions that exist below the level of our immediate awareness	Air Quality <ul style="list-style-type: none"> - temperature - humidity - circulation/ventilation Noise (level, pitch) Scent Cleanliness
Design (Interior & Exterior)	Stimuli that exist at the forefront of our awareness	Aesthetic <ul style="list-style-type: none"> - architecture - color - scale - materials - texture - shape, - style - accessories Functional <ul style="list-style-type: none"> - layout - comfort, - signage - pattern
Social	People in the Environment	Audience (Other Customers) <ul style="list-style-type: none"> - number - appearance - behavior) Service Personnel <ul style="list-style-type: none"> - number - appearance - behavior

Adapted from [5, pp. 80]

RESEARCH MODEL AND HYPOTHESES

Figure 2 presents the research model of this study. Three categories of hypotheses are developed based on the literature review.

FIGURE 2 Research Model



The Relationship between Servicescape and Emotion

Although there is no definitive taxonomy of emotion, emotion in the management area can be defined as ‘a mental state of readiness for action that promotes behavioral activation and helps prioritize and organize behaviors in ways that optimize individual adjustments to the demands of the environment’ [6] [4] [18].

Generally, the measurement of emotions can be divided into two ways: one-levels scale and two-level scales. One-level scales consecutively measure emotions with bipolar dimensions (e.g. hopeful-despairing) [20] [21] [12] [22]. Two-level scales independently measure emotions with unipolar dimensions (e.g. positive: pleased and negative: annoyed) [16] [25] [28]. Most studies have supported the two-dimensional scheme due to the complexity of emotional experiences. This study also uses the two-dimensional approach that divides emotions into positive and negative categories.

Based on previous studies, this study suggests four factors that make up the international airport servicescape (ambient, design, safety, social) which will influence a customer’s positive or negative emotions. The hypotheses from H1-1-1 to H1-4-2 are presented as follows;

- H1-1-1: Ambient factors will have a positive effect on positive emotion.
- H1-1-2: Ambient factors will have a negative effect on negative emotion.
- H1-2-1: Design factors will have a positive effect on positive emotion.
- H1-2-2: Design factors will have a negative effect on negative emotion.
- H1-3-1: Safety factors will have a positive effect on positive emotion.

H1-3-2: Safety factors will have a negative effect on negative emotion.

H1-4-1: Social factors will have a positive effect on positive emotion.

H1-4-2: Social factors will have a negative effect on negative emotion.

The Relationship between Emotion and Airport Attitude

Emotion and attitude are distinct constructs. While emotion is the spontaneous mental state generated by objects or events, attitude is ‘a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object’ [15, pp.6]. Fishbein and Ajzen [15] and Lutz [19] argued that emotional states influence customers’ attitudes, and many researchers [12] [11] [23] [30] empirically examined the significant relationship between emotional states and attitudes. In other words, they found that customers in positive emotional states have positive attitudes. Thus, H2-1 and H2-2 are suggested as follows:

H2-1: Positive emotion will have a positive effect on airport attitude.

H2-2: Negative emotion will have a negative effect on airport attitude.

The Relationship between Airport Attitude and Behavioral Intention

Behavioral intention is an indication of an individual’s readiness to perform a given behavior [1]. According to TRA (Theory of Reasoned Action) theory [2], attitude is the antecedent of behavioral intention. These studies also share a common thread with Wixom and Todd’s model [29] ‘object-based belief → object-based attitude → behavioral intention’. The positive relationship between attitude and behavioral intention has been verified empirically by many studies [9] [12] [26]. Based on the preceding, the third hypothesis regarding airport attitude and behavioral intention is indicated below.

H3: Airport attitude will have a positive effect on behavioral intention.

FUTURE STUDY

Measurement Development and Data Collection

A survey instrument for the empirical study of the international airport servicescape will be developed based on previous research. Before the data collection, a pilot test will be conducted to refine the survey questionnaire. Data will be collected in the Republic of Korea in summer, 2011. A total of 400 questionnaires will be randomly distributed to customers at the Incheon International Airport.

It will be determined according to the result of this study whether the international airport servicescape model will be used or modified in other international airport settings.

REFERENCES AVAILABLE UPON REQUEST

Tourist Satisfaction as a mediator between the Service Quality Scorecard and Tourist Retention

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ABSTRACT

This paper investigates if Tourist Satisfaction is a mediator of the relation between the Service Quality Scorecard (SQSC) when predicting Tourist Retention in a business tourism environment. A quantitative research approach was followed by using a cross-sectional field survey amongst different sections in the South African business tourism industry generating a sample of 498 respondents. General Linear Modeling (GLM) techniques were applied to analyse the data. Results suggest that Tourism Satisfaction mediates the relationship between the SQSC and Tourist Retention. Service quality is therefore not the only variable that strongly relates to Tourist Retention. Tourist Satisfaction as a reflection of a tourist's emotional experience is another important variable that explains additional variance. Destination managers can therefore manage the tourist's service quality experience and the emotional experience more effectively.

INTRODUCTION

Business tourism service quality is a concern for the South African tourism industry [1]. A number of studies have focused on service quality research in the tourism industry [2-5] and specifically business tourism [6, 7]. However, service quality fails to capture the customer's overall service quality evaluations in a multi-item construct [8]. Multi-item constructs can be measured through the combination of financial and non-financial constructs [9-11] using a balanced scorecard as a multi-criteria evaluation concept [12-14]. Balanced scorecard research highlights a necessity to translate the objectives into actionable goals [15-17]. Although service quality is a known non-financial performance measure [18], little evidence exist of the relationship between service quality and the balanced scorecard in the business tourism industry.

[19, 20] proposed the development of a service quality scorecard (SQSC), as a multi-item measurement model, to predict business Tourist Retention. It is proposed to integrate the service quality dimensions [21] with the balanced scorecard perspectives [13] resulting in an empirical SQSC dimension consisting of the following constructs: (1) *financial perspective* with key performance indicators (KPIs) *growth in the*

market share [22, 23]; *more profit per business tourist* [23, 24]; *improvement of the cost structure* [23, 25]; and *global economy* [23, 26]. (2) *customer value perspective* with KPIs *product and service attributes* [2, 27]; *reliability* [27, 28]; *empathy* [29, 30]; *relationships* [8, 31]; and *image* [32, 33]. (3) *people behavior* [34, 35]; *people empowerment* [36, 37]; *profitability* [38]; and *concern for the planet* [34, 39] are the KPIs for the *internal business perspective*. (4) the *learning and growth perspective* includes *strategy* [40, 41]; *use of technology* [42, 43]; *organisational culture* [44, 45]; *assurance* [8, 46]; and *responsiveness* [4, 47] as KPIs.

[8] argues that customer satisfaction is a consequence of service quality, while [48] argue that customer satisfaction has not been used in the measurement of service quality in a business tourist environment. According to [49] "satisfaction" is one of the most recurring themes in psychology and consumer behaviour, which includes many of the variables integrated the "satisfaction" process. Research related to the meetings industry [32, 48, 50, 51] indicated the consequences in a satisfaction model when constructs are adopted from different theoretical frameworks in order to identify the key indicators [52-54]. Some integrated models are employed to investigate how tourists' attitudes and behaviours are influenced by satisfaction [55]. However, customer satisfaction is significant in service quality measurement [8, 56, 57] and the mediating effect of satisfaction on service quality has also been acknowledged [8, 35, 58-61].

It is proposed that the SQSC model will be mediated by *Tourist Satisfaction* when predicting Tourist Retention. Tourist Satisfaction is conceptualised as multi-dimensional, characterised by five key performance indicators, namely (1) *service satisfaction* [62, 63] (2) *experience* [30, 64-68], (3) *communication* [29, 30, 48, 64, 66, 69, 70] (4) *accessibility* [2, 71] and (5) *feelings* [70, 72]. This model has been inspired by the (1) Tourist Satisfaction cognitive-affective model by [55], (2) the behavioural intentions model by [73] and (3) the combined affective model developed by [74] to act as possible mediator [60, 61]. It is suggested that a positive perception of the business tourism destination may

lead to overall service satisfaction and intention to repurchase the business tourism product [31].

High levels of customer satisfaction leads to customer retention [2] which increases a company's profitability [75] and directly affects the repurchase intent [76]. [61] argues that strong empirical evidence exists with satisfaction as a mediator of the perceived value in the repurchase intent relationship. Based on aforementioned SQSC prediction model, it is proposed to have six dimensions in the **Tourist Retention** construct. This construct aims to measure the following six dimensions: (1) repurchase intention [8, 35, 62, 77]; (2) loyalty programmes [78, 79]; (3) intensification [80]; (4) the possibility to switch to another destination (search alternatives) [70, 77]; (5) safety and security (travelability) [81, 82]; and (6) excitement [83].

Based on the afore going theoretical discussion this research aims to empirically test the possible mediating effect of Tourist Satisfaction on the relationship between the SQSC model and business Tourist Retention.

RESEARCH DESIGN

The research design aims to fulfill the objectives of the study by answering the research questions [84]. Two topics are discussed under the research design, namely the research approach and the research method.

Research approach

This study sets out to find acceptable answers to the research problem and uses a positivist epistemology [85] in the quantitative research tradition. It is empirical in nature as the researchers attempt to test the subjective beliefs of business tourists against the objective reality of South Africa as a business tourist destination by drafting a theoretical predictive model. Primary data was generated through a cross-sectional survey [8]. Data was analysed by the application of General Linear Modeling (GLM) techniques.

Research method

The research method is described under the following four headings:

Sampling and participants. Respondents from various academic, associations, government and corporate industries were sampled, resulting in a purposive, convenience sample of 498. Data was collected between October 2009 and March 2010 from respondents who were exposed to game lodges, guest houses, three, four and five star hotels, conference centres as well as airlines.

Measuring instruments. Three measuring instruments were developed for this study. The first instrument is the SQSC that was based on two models, namely the [21] SERVQUAL model and the [13] Balanced Scorecard. The SQSC consists of the four scorecard dimensions that also incorporate the SERVQUAL

dimensions, resulting in the following theoretical dimensions:

Firstly, the **financial perspective** with KPIs *growth in the market share, profit per business tourists, and improvement the cost structure.*

Secondly, the **customer value perspective** with KPIs *reliability, empathy, and relationships.*

Thirdly, *people behavior, people empowerment, profitability, and planet* as KPIs for the **internal business perspective.**

Lastly, the **innovation and learning perspective** measured by three KPIs namely *organisational culture, assurance, and responsiveness.*

The **Tourist Satisfaction** measure covers five dimensions, namely: (1) service satisfaction; (2) experience; (3) communication / word of mouth; (4) accessibility; and (5) feelings. The **Tourist Retention** measure was also developed for the study and consists of six dimensions and includes: (1) repurchase intention; (2) loyalty programme; (3) intensification; (4) switching; (5) safety and security; and (5) excitement. The internal consistency reliabilities (Cronbach Alpha) of the SQSC, Tourist Satisfaction and Tourist Retention measures were computed using the three sets of measures [8, 86].

Research procedure. [87] argued that data is generated when a group of people, i.e. business tourists, judge a set of concepts where they allocate a single value related to a particular concept against a particular scale. Business tourists were targeted with an e-invitation letter, inviting them to participate in the survey via an internet link during a period from 2008 to 2009. The realised sample (N = 498) consists of business tourists who have met specified criteria. Respondents were also approached by trained fieldworkers to complete hard copy questionnaires.

Statistical analysis. Data was analysed through General Linear Modelling (GLM) techniques. According to [31] advantages of this data analysis technique are the testing of the indirect, direct and total effects of the expressive displays on SQSC, Tourist Satisfaction and Tourist Retention. The Bartlett's Test of Sphericity and the Kaiser-Meyer Olkin (KMO) of Measure of Sampling Adequacy (MSA) were used to test the factorability of scales. The KMO of MSA values smaller than 0.6, as well as those cases above the minimum value (0.3) under the Communalities were extracted, which is an indication of the factorability of the dimensions. The newly created SQSC, Tourist Satisfaction and Tourist Retention scales were confirmed by means of factor analyses. Exploratory factor analysis and confirmatory factor analysis were used to investigate the underlying theoretical constructs that may be represented by a set of items [61]. A process of adjusting the factor axes was followed for the exploratory factor analysis as well as the confirmatory factor analysis. The number of factors to be extracted was postulated based on the Eigenvalues (values greater than unity). Reliabilities

of these constructs were established through iterative item analyses [88].

Regression analyses were used to test the mediating effect of Tourist Satisfaction between the SQSC when predicting Tourist Retention [88, 89]. This will be discussed in more detail under the Results. The SPSS programme (Version 18) was used in generation of all calculations.

RESULTS

Results on the SQSC dimension, Tourist Satisfaction and Tourist Retention found that the matrixes were suitable for factor analysis. Separate dimensions for each structure were identified, based on two criteria required by the Bartlett's test of Sphericity and the Kaiser-Meyer Olkin (KMO) of Measure of Sampling Adequacy (MSA). MSAs with values smaller than 0.6 were eliminated, followed by the extraction of all values where the Communalities were smaller than 0.3. Results of the Bartlett's Test of Sphericity ($\chi^2, df = 6, p = 0.000$) = 1146.989 KMO of MSA (0.806) indicated the overall significance of all correlations within the SQSC dimension. Tourist Satisfaction resulted in the Bartlett's Test of Sphericity ($\chi^2, df = 3, p = 0.000$) = 465.907 and KMO of MSA (0.652) with Eigenvalues explaining 70% of the variance in the factor space. Eigenvalues explained 63% of the variance in Tourist Retention with a Bartlett's Test of Sphericity ($\chi^2, df = 3, p = 0.000$) = 265.676 and KMO of MSA (0.669).

The reliability analyses on the SQSC indicated that all four dimensions of the scorecard could be reliably measured with Cronbach Alphas ranging between 0,959 and 0,875. A third order confirmatory factor analysis was conducted on the four SQSC dimensions and one factor was extracted with an overall internal reliability of 0,875. Tourist Satisfaction was also reliably measured with an overall Cronbach Alpha of 0,940 while Tourist Retention was also reliably measured with an overall Cronbach Alpha of 0,872.

A Kolmogorov-Smirnov test was conducted to statistically determine the normal distribution. The SQSC dimension, Tourist Satisfaction and Tourist Retention have shown a p-value smaller than 0.05, thus rejecting the H_0 . However, the Kolmogorov-Smirnov test is sensitive and the sample size was relatively big, therefore is the test for normality not critical [90].

Multiple regression is an accessible data-analytic technique used to examine the moderator and mediator effects [91]. Four regression equations were estimated in the testing for mediation, namely:

(1) the regression of the independent variable (SQSC) on the dependent variable (Tourist Retention) explaining 47.2% of the variance.

(2) the regression of the mediator (Tourist Satisfaction) on the dependent variable (Tourist Retention) explaining 44.7% of the variance,

(3) the regression of the mediator (Tourist Satisfaction) on the independent variable (SQSC) explaining 66.7% of the variance, and

(4) the regression of the dependent variable (Tourist Retention) on the independent variable (SQSC) as well as the mediator (Tourist Satisfaction) explaining 50.6% variance in the latter variable.

For mediation to take place, the mediator (Tourist Satisfaction) must affect the dependent variable (Tourist Retention). Tourist Satisfaction is a partial mediator of the relationship between the SQSC and Tourist Retention and explains 3.4% additional variance when included in the prediction of Tourist Retention. This partial mediation is statistically significant based on the obtained z-score of 16.702 ($p = 0.001$) [91, 92].

DISCUSSION

The objective of the study was to investigate if Tourist Satisfaction can be a mediator of the relationship between the SQSC and Tourist Retention. This study also examined the relationship between these theoretical constructs. There is an explanation of the main characteristics of the concepts examined, with special attention being paid to the multi-dimensional nature of the concepts and the relationships between them [93]. This study contributes to the literature by finding evidence that Tourist Satisfaction mediates the relation between the SQSC when predicting Tourist Retention in a business tourism context. The resulting model provides evidence of the impact of the business tourist satisfaction upon business tourist retention. These findings would enable tourist destination managers to manage service quality and satisfaction levels more effectively that can ultimately translate into tourist retention.

Implications and recommendations

It is known that the business tourism industry is one of the fastest-growing segments of the global tourism destination [36] and is known as a major force in tourism in general [32]. The testing of mediating effect of Tourist Satisfaction within an international context will thus be the next logical step as this research was only conducted in a single country setting.

Future research may explore the mediating effect of Tourist Satisfaction in various target segments, such as the leisure tourism market [3]. Alternative sampling methods i.e. stratified or random sampling within a specific business tourism segment is also suggested.

REFERENCES

References are available upon request

Advertising Strategy based on Outbound Travel Service Characteristics and Media Type

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ABSTRACT

When purchasing a travel service, consumers perform multiple information searches. Depending on the accessed information and the type of media for travel service advertisements, consumers make different evaluations on the travel service. In this context, we propose a consumer persuasion model that reveals the most effective persuasion process for consumers to make purchasing decisions on travel services.

Keywords: Outbound travel service, Consumer persuasion process, Media-richness, Information search, Infomercial

INTRODUCTION

Consumers perceive higher risk during the purchasing decision process for high involvement products or services than for low involvement products or services [1]. In the case of services, which are characterized by intangibility [2], consumers perceive higher risk than in the case of physical products [3].

An outbound travel service is an exemplary high involvement service [4]. For the outbound travel service consisting of a number of intangible services, consumers perceive high risk in estimating the quality [5]. To reduce the risk they perceive, consumers search for information about various travel services [6]. Through the information search, consumers make their own evaluations on the outbound travel service, both regarding its quality and the level of risk it has. Consumers first draw upon their internal knowledge, and then they seek external information [7]. This external information is twofold: commercial information and public information. The commercial information is often in the form of advertisements. Once consumers have sufficient internal knowledge, they compare the information from advertisements against their internal knowledge and can immediately

evaluate the contents of advertisements. If consumers lack the internal knowledge, they turn to public information-namely, reputation [8]. Reputation is perceived to be rather unbiased information compared to the commercial information, which is intentionally provided by firms. Therefore, the obtained reputation may change consumers' evaluation of the travel service.

Similarly, depending on the type of media where the travel services are advertised on, consumers' evaluation on the services could change [9]. Such influence of media on the effectiveness of advertisements could be explained through media-richness theory. Media-richness theory proposes that a task will be more effective when its needs are matched to a medium's capabilities to convey information [10]. The conventional advertisement medium for travel services, newspapers or magazines, may pose some challenges in consumer persuasion due to its limited media-richness. On the other hand, the recent advent of TV infomercial as a new advertisement medium for travel services has changed consumers' evaluation of the travel services. The reason is that the media-richness of TV infomercial as an advertisement medium reduced the risk perceived by consumers when purchasing an outbound travel service [9].

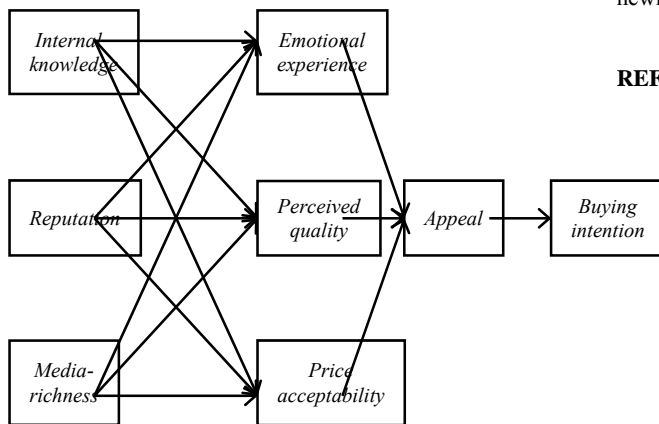
THEORETICAL BACKGROUND

Based on the review above, it is clear that the need for sophisticated advertising strategies alleviating consumers' risk cognition and raising the level of persuasiveness is on the rise for the travel industry. However, most travel agencies, usually small- and medium-sized firms, engage in price dumping competitions against each other rather than developing refined advertising strategies that reflect attributes of their travel services. Some academic efforts have

been spent discussing advertising strategies effectively reflecting travel service attributes [11]. Other scholars have researched the effectiveness of advertisements for travel services [12]. There also is a group of researchers who look into the relationship between advertisements and the media [13]. However, research providing empirically proven promotional strategies of precisely reflecting high involvement and intangible traits of the outbound travel service are somewhat rare. Current research has been unsuccessful in examining the entire process of consumers' service evaluation when these traits of a travel service are reflected in advertisements. Also, the research on media and advertisement has often overlooked the possible changes in advertisement effectiveness conditional to the characteristics of various media.

CONCEPTUAL FRAMEWORK

In this context, we intend through this research to propose a consumer persuasion model (see Figure 1) that seeks to reduce consumers' uncertainty and increase the level of persuasion toward high involvement intangible services, such as the outbound travel services. In connection with this intention, we analyze the influences of consumers' internal knowledge, public reputation, and the media characteristics on the persuasion process of outbound travel service advertisements.



<FIGURE 1. Consumer persuasion model for outbound travel service>

Based on the model above, we establish the following hypothesis regarding the relationship between internal knowledge and the reputation and the outbound travel service evaluation criteria.

H 1-1: Positive internal knowledge and reputation have positive influence on the evaluation of outbound travel service evaluation criteria.

We also argue that consumers make different evaluations of travel service criteria depending on the level of media-richness [9]. The following hypothesis is established.

H 1-2: Positive media-richness has positive influence on the evaluation of outbound travel service evaluation criteria.

Moreover, when the price is adequately established consumers may perceive the information on the advertisement to be trustworthy. Therefore, a reasonable price is likely to have a high effect on appeal of service [14]. Hence, we hypothesize:

H 2: High evaluation on travel service attributes lead to higher travel service appeal.

Chaudhuri and Holbrook [15] suppose that when consumers discover the superior and high appeal from a service over other services, they would make additional monetary sacrifices to possess the unique appeal of the service. Thus, the hypothesis is established as follows.

H 3: Higher appeal on service leads to higher buying intention.

CONCLUSION

We attempt to provide a theoretical framework in the field of consumer persuasion studies by grafting consumer information search, commercial information evaluation, and decision process onto the proposed model. By utilizing the proposed model, we purport to display the effects and limits in the level of persuasion between the two media: the industry's familiar advertising medium of printed materials and newly debuted medium of infomercials.

REFERENCES

- [1] Schoefer, K., Diamantopoulos, A. Measuring experienced emotions during service recovery encounters: construction and assessment of the ESRE scale. *Service Business*, 2008, 2(1), 65–81
- [2] Mainardes, E., Silva, M., Domingues, M. The development of new higher education courses. *Service Business*, 2010, 4(3-4), 271–288
- [3] Murray, K., Schlacter, J. The impact of services versus goods on consumers' assessment of perceived risk and variability. *Journal Academy of Marketing Science*, 1990, 18(1), 51-65
- [4] Wang, K., Hsieh, A., Yeh, Y., & Tsa, C. Who is the decision-maker: The parents or the child in group package tours?. *Tourism Management*, 2004, 25(2), 183-194
- [5] Zeithaml, V. Consumer perceptions of price, quality and value: a mean-end model and synthesis of evidence. *Journal of Marketing*, 1988, 52(July), 2-22
- [6] Quintal, V., Lee, J., Soutar, G. Tourists' information search: the differential impact of risk and uncertainty avoidance. *International Journal of Tourism Research*, 2010, 12(4), 321–333

- [7] Alba, J., Hutchinson, J. Knowledge calibration: what consumers know and what they think they know. Journal of Consumer Research, 2000, 27(September), 123–156
- [8] Deephouse, D. Media reputation as a strategic resource: an integration of mass communication and resource-based theories. Journal of Management, 2000, 26(6), 1091-1112
- [9] Carlson, J., George, J., Burgoon, J., Adkins, M., White, C. Deception in computer-mediated communication. Group Decision and Negotiation, 2004, 13(1), 5-28
- [10] Daft, R., Lengel, R., Trevino, L. Message equivocality, media selection and manager performance: implications for information systems. Management Information Systems, 1987, 11(3), 355-366
- [11] Gretzel, U., Yuan, Y., Fesenmaier, D. Preparing for the new economy: advertising strategies and change in destination marketing organizations. Journal of Travel Research, 2000, 39(2), 146-156
- [12] Woodside, A., Dubelaar, C. Increasing quality in measuring advertising effectiveness: a meta-analysis of question framing in conversion studies. Journal of Advertizing, 2003, 32(1), 79-85
- [13] Calder, B., Malthouse, E. Managing media and advertising change with integrated marketing. Journal of Advertizing Research, 2006, 45(4), 1-6
- [14] Ofir, C. Reexamining latitude of price acceptability and price thresholds: predicting basic consumer reaction to price. Journal of Consumer Research, 2004, 30(March), 612-621
- [15] Chaudhuri, A., Holbrook, M. The Chain of effects from brand trust and brand affect to brand performance: the role of brand loyalty. Journal of Marketing, 2001, 65(2), 81-93

A Study of the Elderly Foreign Tourists' Trends in Receiving Services in Thailand

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ABSTRACT

The study is documentary research which its objective is to study the elderly foreign tourists' trends in receiving services while they travel around Thailand. The research methodology was conducted through examining academic articles, research, and electronic data relevant to tourism of the elderly foreign tourists.

It was found that the elderly foreign tourists spent their money, per one tour, more than other tourist groups, partly because of their retirement pay, pensions, and savings. This tourist group emphasized convenience and medical care.

It is recommended that operators in Thailand's tourism industry should eliminate obstacles- languages (particularly English) for communication, medical services, and transportation- and increase facilities for the elderly foreign tourists at the earliest.

Keyword(s): Elderly foreign tourists

INTRODUCTION

A survey conducted in 1996 by U.S. Census Bureau, as part of U.S. Department of Commerce, revealed that the global population with 60 years of age and over stood at around 550 million people and anticipated that this population group would reach 1.2 billion people. It is no exaggeration to say that there has been a sharp increase in this population group. People live longer because of several reasons such as doing more exercise, more balanced and healthier diet, and improvements in taking care of themselves (Anakesuk, Sompoj, 2003).

Because of a trend in becoming an ageing society, many countries concentrating on the tourism industry have turned their attention to the elderly tourists. It is anticipated that this tourist group will spend money the most, compared with other tourist groups. Therefore, paying attention to the elderly tourists will generate high income for tourism-focused countries. The elderly, after their retirement, have more free time to spend their savings and they can travel to many tourist attractions around the world. They will be dream tourists in the future.

Nowadays, Thailand emphasizes the importance of the elderly tourists. Many activities, according to the government's and Tourism Authority of Thailand (TAT)'s policies, are provided to serve this tourist group's preference such as long-stay tourism. The elderly tourists are mainly Japanese and Europeans. They want to travel in Thailand, spending long time here happily because they are retired.

Tananuwat, Narong, commented that the elderly Japanese has the biggest portion of the world's elderly people because the Japanese government promotes them to take early retirement. Then, this tourist group is very interesting because they prefer staying abroad for a long time. (Bangkok Business Online, 2008).

Thailand Tourism Development Research Institute (TRI) (2009) revealed that a trend of the elderly tourists was very hot and recommended the public and private sectors to prepare themselves to attract the elderly tourists' attraction and compete with neighboring countries. Next 10 years, the number of the elderly tourists would reach 700 million people. However, problems and obstacles for this tourist group were languages for communication, medical expenses not covered in Thailand, infrastructure and facilities, cheating behavior of public transportation, and few English signs.

The researcher is highly interested in the elderly tourists because Thailand is a tourism-focused country. The objectives of this research are to study trends in the elderly foreign tourists in Thailand and their interesting tourist preference. If satisfaction can be provided to the elderly tourists, Thailand's tourism can be core competitiveness at the world's stage.

CONCEPT AND RELATED RESEARCH

CONCEPT ON THE TOURISM SYSTEM

Wongwanich, Wanna (2003) thought that the tourism system is composed of 7 aspects: 1) Tourists, 2) Tourist goods or tourist attractions, 3) Transportation, 4) Information and services, 5) Safety and convenience, 6) Infrastructure, and 7) Other supporting aspects. These 7 aspects had to be connected one another so that tourism would be successful. The government also agreed with this

tourism system so that it tried to improve each tourist attractions to possess all 7 aspects completely. This led to the stimulation of tourism and the tourists also could travel to anywhere as they wished.

RELATED RESEARCH

Association of Thai Professional in Japan (1997) studied about Japanese tourists and opportunities to raise the quality of Thai tourism. The association believed that the Japanese tourists played an important role in giving the direction of Thai tourism because this tourist group was the large portion of all tourists traveling to Thailand and they also spent their money the most. Findings were found that the Japanese tourists paid attention to 5 types of Thai tourism: Eco-tourism, educational tourism, health and sport tourism, cultural tourism, and ethnic tourism.

Khaosa-ard, Mingsan (2005) studied about value added to tourism of Thailand. Its objective was to assess the role of tourism in the Thai economy. He chose Chiang Mai province as a case study. It was found that Chiang Mai highly had a role in the economy. Another objective was to assess the tourism categories and found that the tourism categories which added high value to tourism were car rent business, hotel and resort business, and tour business.

Mudtayaburut, Warat (2011) studied about guidance on developing tourist routes for the elderly tourists. Areas around the Electricity Generating Plant in Mae Moh in Lampang province were chosen. Findings were found that Mae Moh Mine should provide more facilities suitable for the elderly tourists, particularly toilets, accommodation, and natural routes around Mae Moh Mine and Bua Tong field. Also, the appropriate knowledge should be added in order to make this tourist attraction to become a learning center. This would lead to attract the elderly tourists' attention to go there for a trip and knowledge learning.

METHODOLOGY

A tool used in this research is data collection from academic articles, research papers, and electronic data relevant to the elderly tourists' trends in receiving services. They are 35 in total, composed of 20 academic articles, 10 research papers, and 5 pieces of electronic data.

The criteria for selecting data employed in the study are 1) facts, 20 reliability and validity, 30 representation, and 4) meaning.

RESULTS

It was found that there was a rise in the elderly tourists as a result of a baby boom period. Therefore, the global population had become ageing. The findings illustrated that the elderly foreign tourists spent their money, per one tour, more than other tourist groups, partly because of their retirement pay, pensions, and savings. Also, this tourist group emphasized the importance of facilities and convenience, and medical care when they got sick.

RECOMMENDATIONS

After studying the elderly foreign tourists' trends in receiving services while traveling in Thailand, it is recommended that operators in Thai tourism industry should eliminate problems and obstacles this tourist group encounter. They are languages for communication (particularly English), medical services, and transportation. Meanwhile, the elderly foreign tourists prefer an increase in facilities for this tourist group at the earliest.

REFERENCES

- [1] Anakesuk, Sompoj, The way of life of the 100 years elderly in Chonburi province, Thailand, Burapha University, 2003.
- [2] Association of Thai Professional in Japan. Japanese tourists and opportunities to raise the quality of Thai tourism. Thailand Research Fund, 1997.
- [3] Institute of Health for People with Disabilities. A guide to people with disabilities and the elderly, 2010.
- [4] Khaosa-ard, Mingsan. Retained value of the Tourist industry of Thailand. The Thailand Research Fund, 2005.
- [5] Mudtayeamburut, Warat. Development of tourist destinations for elderly tourists. Faculty of Management Science and Information Science, Phayao University, 2011.
- [6] Tananuwat, Narong. Tourism and the Elderly tourists. Retrieved September 9, 2007 from <http://www.bangkokbiznews.com>
- [7] Thailand Tourism Development Research Institute. A hot trend of the elderly tourists. Retrieved October 23, 2009 from <http://huklongtun.com>
- [8] Wongwanich, Wanna. Geography of tourism. Srinakharinwirot University, 2003.

The Cultural Impact of Entertainment Services on Brand Evaluation: The Case of Korean-Wave and Korean Products

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Abstract

Within the fiercely competitive Chinese market, the emerging Korean-wave, a phenomenon characterized by the Chinese adoption of Korean culture, is considered to be a favorable marketing opportunity for firms. Moreover, China is a land of diversity and a home to many races, which creates unique criteria for Chinese consumer preference for other countries. Therefore, a marketing strategy tailored to the Chinese market condition is needed. This study reveals that brand preference varies by consumer value; furthermore, brand loyalty can be developed by promoting brand preference and brand knowledge, which includes capitalizing on the success of entertainment services, *Korean-wave*. The implications of the findings of this study will enable firms in identifying and developing a suitable marketing strategy for China.

Keywords: Consumer value • brand knowledge • Brand preference • Brand loyalty • Korean-wave

The Education of Children of Migrant Workers and the Quality of Future Labor Force: Case of Shanghai, China

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ABSTRACT

Although the migrant population in Shanghai has been increased rapidly, migrant kids still have to face barriers to take public education due to Chinese registration system(户口制度). Under this system, only kids who hold an official Shanghai registration are permitted to get in Shanghai placed public schools after finishing junior high school education. There are some alternative ways to get high school education for migrant kids, but the quality of education of these options fall far behind compared to the formal education. Because of financial reasons, even such options are hard to obtain in reality. Such education gap between migrant kids and non-migrant students deepen the social inequality and injustice.

1. Introduction

Because of the illegal status under the household registration system, migrant workers are not entitled to state-subsidized medical care, schooling and housing. Chinese migrant kids have hardly benefited from their country's nine-year compulsory education system. Among the 20 million migrant kids, their school dropout rate is 9.3 per cent.[1]

Once the migrant people obtain an official urban household registration, their children can enjoy equal schooling opportunities as like urban local kids. However, the chance is very slim to successfully become a legal urban citizen; therefore, the majority of migrant children have to find an alternative way of schooling.

This paper attempts to present the current educational problems and challenges the migrant families and their children are encountering. The implications on the future quality of labor will not be presented in this paper due to space limitations.

2. Alternative Schooling Options

1) Public School

Due to limited school space and facilities, local public schools are reluctant to accept migrant children. Moreover, some teachers do not want to receive migrant kids for the reason that they will lower the average grade of the class on exam and give a bad influence on a whole class.

Instead of denying migrant students, public schools collect substantial amount of non-residential

school fees to discourage them from enrolling in public schools. A migrant child in a public school have to pay 2000-5000 RMB for sponsorship (赞助费) in an elementary school and 50,000 RMB for a high school.[2] In December 2010, ministry of education of the CCP abolished one type of extra-paid fee(借读费) charged to migrant children, it was around 600 RMB for each term at Beijing, however, other extra fees are still remained.

According to Beijing Academy of Social Science, in Beijing, 31,000 migrant household's average monthly income is around 1,000 RMB.[3] Given the financial situation, paying extra school fees are extremely burdensome to migrant households.

2) Unlicensed School

When migrant parents cannot afford to send their children neither to public school nor to licensed private school, unlicensed or black schools can be an option. It turned out that only 30 per cent of migrant students in Beijing go to public schools and the rest of 70 per cent of migrant students are enrolled in migrant schools.[4] It is known that migrant schools are poorly administrated compare to public schools in terms of poor school facilities, less competitive teachers and low quality of education. However, given a minimum operating income of those migrant schools, school facilities are hard to be improved to meet the government's regulation without any government's support. After migrant schools were closed, migrant kids were not automatically sent to public schools, but rather they had to find another options by themselves.

Teacher's ability in migrant school is also problematic. They do not have enough teaching experience and hold any teaching certification. According to standardized math test result, average score of migrant children were 70.31 and rural children were 71.79 and Beijing urban children were 78.23.[5] It is quite a surprise to find that Beijing migrant school's average score is even lower than rural counterpart. This fact reveals serious educational disparities between the local and migrant students.

3) Returning to Hometown

According to local government's regulations, migrant students should go back to their hometown when they reach high school level. Chinese

government does not issue a permit to local ministries of education to set up secondary schools. Therefore, migrant students are excluded from schooling in this level at urban area because of limited seats in the school.

When migrant kids go back to their hometown without their parents, they should go to boarding schools, otherwise they have to find other types of housing. Due to additional living expenses, to send their children to a boarding school is also burdensome to migrant household. In total, students in rural boarding school have to spend almost 12,000 RMB during three high school years.[6] Nevertheless, the number of boarding schools in China is growing rapidly in recent years to cope with increased demand of migrant students.

4) Dropping Out of School

After dropping out of school, migrant students start to work in their early ages. Because such kids do not have much work skills and professions, they only can get a simple and low-paying job. The young laborers are easily found in every place in China including restaurants, massage shops, and supermarkets. Such young laborers moved to urban area to seek better living conditions, however, majority of them are concentrated in low status occupations in urban place and this vicious cycle occurs by generations.

According to the official statistics, there are 40 million students in all level of schools are facing a threat of dropping out of school because of financial hardships.[7] Current registration system not only deepens inequality between rural and urban, but also affects to inter-urban disparities.

3. Shanghai Case

Shanghai is the first city where nine-year compulsory education is officially applied to migrant children. Shanghai is one of the most developed cities in China, therefore, Shanghai's economic power is the main driving force of the policy change. To provide equal nine-year compulsory education to migrant children, a local government has to spend great amounts of money for each student. Local education policies vary greatly depends on the financial status of the local governments. Still many other cities in China do not offer free nine-year compulsory education to migrant student. However, the recent policy change in Shanghai does not necessarily guarantee equal education opportunities beyond the nine-year compulsory education.

Under the current education system, even if Shanghai migrant students successfully completed nine-year compulsory schooling, they are not qualified to take high school entrance exam in Shanghai as long as their parents do not hold official Shanghai residence permit. Migrant students have no choice but to seek other options for their senior high school level education. Multiple levels of discrimination and

inequalities discourage migrant students and their parents who want to give better education opportunities to their children.

In China, education disparities between the rich and the poor are more prominent in economically developed cities such as Shanghai and Beijing. Attributed to China's one child policy, Chinese household invest huge amounts of money to their only one child from a very early age. The total amount of money invested to a child differs greatly according to the financial status of a household even at the pre-school level. Children in wealthy families usually receive private supplementary tutoring(辅导班) in academic subjects, foreign languages and music instruments. The demand for private supplementary tutoring in Shanghai grows steadily and private institutions are one of the fastest growing segments of the education industry.

In contrast, migrant kids from poor families have to do household chores after school to help their parents who work more than 11 hours a day in average. The majority of migrant households do not make enough money to send their children to private afterschool institutions. Without a parental monitoring intervention, migrant kids are roaming around the streets, creating another social problem. In big cities, migrant kids are recognized as possible troublemakers who can commit the majority of street crimes. [8]

One of the Chinese NGOs, named "Shanghai Jiuqian Volunteer Center(上海久牵志愿者服务社)" was established in February 2002, to offer free afterschool programs targeting migrant children in Shanghai. An organizer, a public school teacher, started his NGO work at a small apartment in Yangpu district of Shanghai where migrant workers are aggregated and expanded the organization into two branches in Shanghai now. With the help of domestic and international volunteers, it offers free afterschool programs in English, music and paintings at evening during the weekdays and morning to evening in weekends. The center also provides special events in Christmas, Children's day and Thanksgiving Day.

At the center, volunteer teachers usually work for a short-period of time, thus the courses are easily changed and not well-organized. Because there is no fulltime teacher, older children take responsibility to take care of younger children and eight appointed oldest children do simple administrative works at a Puxi branch paid by 100 RMB a month. Because the organizer works at a public school as a teacher during the daytime, he only can visit the center after work during the weekdays. Under the circumstance, Children are hard to take quick response by themselves when urgent accidents are happened in the center.

According to a Jiuqian organizer, two other similar NGOs in Shanghai were shut down by government due to the security reasons recently. He also mentioned that there are more reasons for the result beyond the security reasons. Chinese government takes drastic measures to suppress

political unrest and social turmoil after the Tiananmen incident. Thus, it keeps their eye on the civil society organizations to discourage them from any attempts to resist against the Chinese government. For the reason, Chinese government tries to find a reasonable ground to close the NGOs even though they do not pose serious political threat.

Chinese government takes two different attitudes toward the Jiuqian-type NGOs. On the one hand, Chinese government supports the civil organizations financially as long as they comply with Chinese government's political line. There is a government-sponsored agency which takes responsibility to allocate government funds to well-organized NGOs after close evaluation. The Jiuqian was also appointed as a beneficiary of the government sponsored funds. The Jiuqian organizer said, such government's actions are helpful to build a benign government's image of supporting the civil society.

On the other hand, Chinese government tries to curb social movements as a possible political threat to its regime. Chinese government prefers eventful, short-term volunteer activities rather than organized, long-term NGOs on the ground that the former type of civil movements has less possibility to develop into influential political organizations. In fact, Chinese and international NGOs have to face restrictions on them in Chinese political environment. However, NGO activities in China are still growing to make up the social issues that government not paying enough attention.

NGOs in China try to appear on the mass media to draw people's attention for the social issues and get some physical supports. The Jiuqian keep update the NGO's latest news on its website and appeared on newspapers several times.[9] It is regarded that there is active interactions between civil organizations and the mass media.

4. Conclusion

Migrant workers easily change their residential area and not organized well to take any political action. For this reason, migrant people's problem still remains at the bottom of the policy agenda. Without legal protection, migrant people do not have any channel to redress their grievances.

Under the Chinese Segmented Management of Education policy, county and village financial departments are in charge of local children's elementary education. Thus, the education environment varies greatly according to the regional economic power. Economically developed near east coast area have more financial resources to invest on education, however, the situation is not the same in the poor districts such as west northern parts of China. In current education system, migrant children are not the responsibility of the local authorities. From the local government's perspective, migrant kids' education issue become a huge financial burden as they have to

spend 700 RMB for each elementary student and 1,250 RMB for a junior high student.[10]

According to the report, the Chinese government invests more fiscal resources on urban and rural schools, however, it turned out that the number of students in both urban and rural schools have been decreasing. Thus, the current problem is not investing money on education, but not allocating money equally and effectively. Although the number of student in migrant schools is growing rapidly, there is almost no government investment on this sector. Moreover, the government should give NGOs more administrative and financial supports in order to increase educational opportunities for migrant students. The government funding should be distributed to all children in schooling ages no matter where they come from.

As a legacy of the pre-reform era, the household registration system does not function well in China's changing environment. To remove the growing social problems produced by the household registration system, adequate policies should be placed in practice.

REFERENCES

- [1] 彭, 小霞. 农民工子女教育问题之现状与因分析, 山东省农业管理干部学院学报, 2010, 27(5), 19-21
- [2] Liang, Zai, & Chen, Yiu Por. The Educational Consequences of Migration for Children in China, Social Science Research, 2007, 36, 28-47
- [3] Yan, Fei. Education Problems with Urban Migratory Children in China, Journal of Sociology and Social Welfare, 2005, 32(3), 3-10
- [4] Rozelle etc. Educating Beijing's Migrants: A Profile of the Weakest Link in China's Education System, Working paper no. 212. Rural Education Action Project. 2011.
<<http://reapchina.org/reap.stanford.edu>>.
- [5] Rozelle etc.
- [6] Wang, Xiaobing. College Education and the Poor in China: Documenting the Hurdles to Educational Attainment and College Matriculation. Working paper no. 213. Rural Education Action Project. 2011.
<<http://reapchina.org/reap.stanford.edu>>.
- [7] "Committed to Education." Beijing Review Dec. 2006, 4.
- [8] Goodburn, Charlotte. Learning from Migrant Education: A Case Study of the Schooling of Rural Migrant Children in Beijing, International Journal of Educational Development, 2009, 29, 495-504.

Industrial Structural Changes in Japan Between 1995 and 2005

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ABSTRACT

The main purpose of this study is to investigate the structural changes in economy of Japan from 1995 through 2005. In order to conduct this study, we employ the decomposition analysis. The results shows that the top five sectors which influential in Japan economy between 1995 through 2000 and 2000 through 2005 were different. The decomposition analysis shows that the largest factor between 1995 and 2000 was domestic final demand while that between 2000 and 2005 was technical coefficients. These results suggest the impacts of information technologies on the overall economy of Japan.

INTRODUCTION

The structural change in economy is usually happened in one country. For instance, between 1996 and 2000, Vietnam underwent a structural transformation from agricultural production towards non-agricultural production [4]. That change indicates the dynamic in economy are occurred in one country.

The structural change in economy was also occurred in India. In the last decade, along with other Asian countries such as Philippines, Malaysia, and Hong Kong, India witnessed an impressive growth in information sector [5]. That evidence shows the structure of Indian IT industry had changed.

Japan, as the one of developed country in the world, also has experienced many events through now. This study is conducted to investigate the structural changes in economy of Japan from 1995 through 2005. In order to conduct this study, we employ the structure change analysis of the input-output tables known as the decomposition analysis. We apply this method, which is designed to decompose the changes in industry production into four factors, i.e., domestic final demand expansion (DD), export expansion (EE), import substitution (IS), and technical coefficient changes (IO), to the input-output tables of Japan in 1995, 2000, and 2005.

LITERATURE REVIEW

Decomposition Analysis Definition

Decomposition analysis, known as Structural Decomposition Analysis (SDA), is a tool which used

to study changes over time. The main idea of this tool is that the change in some variable is decomposed, usually in an additive way, into the changes in its determinant. Thus, it will become possible to quantify the underlying source of the changes [5].

METHODOLOGY

The Japan input-output tables for 1995, 2000, and 2005 were used in this study. The 1995 and 2000 tables consist of 93 and 104 sectors while 2005 table consists of 108 sectors. For this study, those tables were transformed into 89 sectors.

The input-output tables which already transformed afterwards would be calculated using decomposition method. The decomposition method used in this study can be written in following equation:

$$X = AX + D + E - M \quad (1)$$

where X , D , E , and M are vectors of gross output, domestic final demand, exports, and imports, respectively, while A is a matrix of technical coefficients. If we let $M = \hat{m}(AX + D)$, where \hat{m} is a diagonal matrix of import ratios, $\hat{p} = I - \hat{m}$, where \hat{p} is a diagonal matrix of import ratios, and $B = (I - \hat{p}A)^{-1}$, where B is termed the domestic Leontief inverse, then we can rewrite equation (1) as

$$X = B(\hat{p}D + E) \quad (2)$$

In order to solve for the change in gross outputs, $\Delta X = X_t - X_0$, equation (2) can be written as

$$\Delta X = B_t[\hat{p}_t \Delta D + \Delta E + \hat{p}_t(A_0 X_0 + D_0) + \hat{p}_t \Delta A X_0] \quad (3)$$

In sum, the equation (3) can be written as

$$\Delta X = DD + EE + IS + IO \quad (4)$$

where ΔX , DD, EE, IS, and IO are the change in gross outputs, effect of the expansion of domestic final demand, effect of export expansion, effect of the changes in import ratios (domestic supply ratios) or import substitution, and effect of the changes in technical coefficient, respectively [4]. From DD, EE, IS, and IO the information about influences of expansion of domestic final demand, export expansion, the changes in import ratios (domestic supply ratios) or import substitution, and the changes in technical coefficient to the change in gross outputs can be determined. The expansion of domestic final demand can be further decomposed into four components. There are (1) consumption expenditure of outside households (DD1), (2) consumption expenditure of private (DD2), (3) consumption expenditure of general government and social fixed capital depreciation (DD3), and (4) capital formation and increase in stocks (DD4).

ANALYSIS AND RESULT

Structural Changes

Using the 1995, 2000, and 2005 Japan input-output tables, this section examines Japan's structural changes in economy from 1995 through 2005. The top five sectors which influential in Japan economy between 1995 and 2000 were advertising survey and information services, public administration, communication, medical service and health, and electronic equipments and components. The explanation about this can be seen in table 1. The top five sectors which influential in Japan economy between 2000 and 2005 were broadcasting and infor-

TABLE 1: The Top Five Sectors which Influential in Japan Economy between 1995 and 2000

No	Sector	Value (100 Million Yen)
1	Advertising, survey, and information services	107307.05
2	Public administration	97796.40
3	Communication	82258.89
4	Medical service and health	81953.87
5	Electronic equipments and components	41330.64

TABLE 2: The Top Five Sectors which Influential in Japan Economy between 2000 and 2005

No	Sector	Value (100 Million Yen)
1	Broadcasting and information services	205792.08
2	Motor vehicles and accessories	192770.41
3	Pig iron and crude steel	84084.73
4	Commerce	82341.82
5	Steel products	61506.57

mation services, motor vehicles and accessories, pig iron and crude steel, commerce, and steel products. The explanation about this can be seen in table 2. Based on the table 1 and 2, information services sector played important role in Japan economy from 1995 through 2005. This phenomenon indicates Japan information services sector rapidly growth in that period. This phenomenon also indicates the government of Japan had serious attention in applying information and communication technology (ICT). The role of ICT is significant because it can strengthen social ties in communities and improving quality of life in local communities by facilitating the social participation of all members of society [1].

The other phenomenon can be seen from table 1 and 2 is the growth of steel sectors. Between 1995 and 2000, these sectors did not significantly influence the economy of Japan. But in the latter period, these sectors, pig iron and crude steel and also steel products, played significant role in economy of Japan. This phenomenon indicates the trade in these sectors rapidly growth in Japan between 2000 and 2005.

The opposite phenomenon can be seen in medical service and health sectors. Between 1995 and 2000 this sector played significant role in Japan economy while not in the latter period. This phenomenon indicates in the first period Japan society had more attention in medical and health. But in the latter period, Japan society pay attention about those less than previous period.

Decomposition Analysis

Table 3 and 4 present the results of decomposition analysis for Japan 1995-2000 and 2000-2005 input-output tables, respectively. The decomposition analysis shows that the largest factor between 1995 and 2000 was domestic final demand (consumption expenditure of general government and social fixed capital depreciation) while that between 2000 and 2005 was technical coefficients. That phenomenon indicates consumption expenditure of general government and social fixed capital depreciation played important role in Japan economy between 1995 and 2005 while the important role in Japan economy in latter period was owned by technical coefficients.

The effect of export expansion had significant role in both periods. As evidence, that factor exists on second rank in both periods (table 3 and 4). From table 3 and 4 also can be seen that the value of export in latter period is higher than first period. That phenomenon

indicates the Japan export was rapidly growth between 1995 and 2005.

Import substitution increased between 1995 and 2005. That phenomenon indicates although export in Japan increased between 1995 and 2005, import was still needed in that time. From the table 3 and 4 also can be seen that the value of import substitutions in latter period was higher than first period. In other words, Japan government did the import more frequently in latter period.

TABLE 3: The Results of Decomposition Analysis for Japan 1995-2000 Input-Output Tables

No	Factor	Value (100 Million Yen)
1	DD3	247777.93
2	EE	232406.54
3	DD2	112880.10
4	IO	36488.35
5	DD1	-946.35
6	IS	-202727.11
7	DD4	-224913.54

TABLE 4: The Results of Decomposition Analysis for Japan 2000-2005 Input-Output Tables

No	Factor	Value (100 Million Yen)
1	IO	431497.55
2	EE	347754.34
3	DD3	90010.70
4	DD1	-43236.21
5	DD2	-51649.76
6	DD4	-321949.20
7	IS	-360881.11

CONCLUSION AND FURTHER RESEARCH

The results shows that the top five sectors which influential in Japan economy were advertising survey and information services, public administration, communication, medical service and health, and electronic equipments and components between 1995

and 2000 while those between 2000 and 2005 were broadcasting and information services, motor vehicles and accessories, pig iron and crude steel, commerce, and steel products. Based on that result, information services sector played important role in Japan economy from 1995 through 2005.

The decomposition analysis shows that the largest factor between 1995 and 2000 was domestic final demand (consumption expenditure of general government and social fixed capital depreciation) while that between 2000 and 2005 was technical coefficients. These results suggest the impacts of information technologies on the overall economy of Japan. In other words, information technologies played important role in Japan economy between 1995 and 2005.

For further research, it will be better if the comparison with other countries is done. That comparison can be done with other developed countries, such as United States of America and United Kingdom, or developing countries, such as Indonesia and Vietnam. From that comparison, we hope the new economy policy, for both side, can be suggested. From this research also can be seen and suggested the opportunity and possibility to use the decomposition analysis into the other aspect, such as energy balance table.

REFERENCES

- [1] Japan Ministry of Internal Affairs and Communication. Information and Communications in Japan. Japan, 2010
- [2] Miller, R.E., & Blair, P.D. Input-Output Analysis: Foundations and Extensions – 2nd Ed. The Edinburgh Building, Cambridge: Cambridge University Press, 2009
- [3] Shintaro, et al. Industrial Structure of Cambodia and the Role of Agriculture and Fishery in its Development. JARQ, 2009, 43(4), 309-316
- [4] Takahiro, A., & Chu, T.T.H. Inter-sectoral Interdependence and Growth in Vietnam: A Comparative Analysis with Indonesia and Malaysia. Applied Input-Output Analysis, 2008, 13 & 14, 61-81
- [5] Shikanwita, J.R., Tuhin, D., & Debesh, C. Sources of Growth of Information Sector in India During 1983-84 to 1993-94. Applied Input-Output Analysis, 2004, 10, 16-38

The Effects of Globalization on Governance and Development: A Comparative Study of Selected Countries from the Middle East, Latin America, and Europe

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ABSTRACT

The purpose of this paper is to study the effects of globalization and openness which has led to democracy and transparency on various nations' governance and their development. Because of these issues globalization has caused national governments to think and act globally; however, it causes administrations to find it difficult to provide "usual" governance. Governments need to adjust to a new and more transparent system of governance. Even developed nations are forced to revise some of their governance in the face of increasing internationalization. Rising international pressure and the desire of citizens of developing nations to reach the quality of life and citizenship rights of developed nations are forcing most developing governments to experience major transformation. As a result, institutions and other non state actors have tried to fill the governance void.

This paper will test the hypothesis of whether national governments have lost their influence and power in decision making to non state actors and if the decentralization and privatization efforts can be accomplished without the continuous support of the governments. We focus our research on three regions, Latin America, the Middle East, and Germany where institutions and private organizations are fully integrated in society, serving as a benchmark.

INTRODUCTION

Governments in Latin America, similar to those in the Middle East, feel the widespread pressure of international communities and local people to adapt to globalization provisions that enable the country to foster growth and development by opening borders, lowering barriers to free trade and making use of the technology standards offered in other countries. Globalization not only offers new possibilities for the domestic industry but also opens the gates for new competitors from abroad. Therefore, governments need to respond to the rising pressure from its citizens to be more open, efficient, and effective in supporting their people and to keep up with the technology standards that bring a Competitive advantage.

Kettl [9] examines the transformation of governance and the role of government in the globalization era. He highlights three main themes, Globalization, Devolution, and the Role of Government, believing that these three themes have transformed the role of government in two ways: 1) they have strained the traditional role of all players and 2) a new era has

challenged the capacity of governments and their nongovernmental partners to deliver high quality public services. Globalization has decreased the effectiveness of individual governments' policies and procedures as governments see themselves responsible for their citizens and also have to be concerned about its external effects. As a result, governments are losing their ability to act alone and have less control in their decisions. For example, recent financial crisis in Greece (2009) and Ireland (2010) have shown strong links among countries. Also, uprising in Tunisian, Egypt, Libya, etc. shows strong political and economic connections and influences among countries. These countries citizens demand for better quality of life and citizenship rights could be considered a by-product of globalization communications and tools.

Governance refers to the process of decision-making and implementation (or not implementing) [21]. An analysis of governance focuses on the formal and informal actors involved in decision-making and implementation of decisions. Governments are just one of the actors in governance. Other actors involved in governance vary depending on the government under discussion but may include influential land lords, associations of peasant farmers, cooperatives, NGOs, research institutes, religious leaders, financial institutions, political parties, and the military.

An institution performs several roles such as formal and informal rules of behavior, means of enforcing rules, conflict resolution and supporting market transactions. Lin and Neugent [13, pp. 2306] defined it as "A set of humanly devised behavioral rules that govern and shape the interaction of human beings, in part by helping them to form expectations of what other people will do." Rodrik [14] argues that "institutions can create or destroy incentives" for individuals to engage in economic activities such as trade, invest in human and physical capital. Thus, institutions have always played an essential role in governmental regulation, but their role has grown considerably since the fall of the former Soviet Union and the advent of globalization. In democratic societies, institutions are more developed and are mostly anchors for good governance. However, in non-democratic societies, institutions are not permitted to evolve and perform their fundamental role.

Technological developments have allowed for faster and easier transportation, communication, and trade between nations, leading to the integration of economies, cultures and societies. This has hindered

governments from providing “conventional” governance and services. Because of this, some governance activities has fallen on nongovernmental organizations, causing their power and size to rise. An example of their level of power and size can be seen in the March/April 2008 edition of OECD’s “Financing Development,” which compared the international actions of big NGOs with governments [1]. This study found that some of the biggest NGOs compete in equal terms with European states.

The impact of non state actors can be seen across the developing and developed world. The National Intelligence Council (NIC) -Eurasia Group studied this impact and categorized nations into three categories: weak, modernizing and developed/post-industrial [3]. The study found that non-state actors have had more freedom in weak and developed/post-industrial nations than in modernizing ones. Weak nations tend to be former colonies where governments struggle to provide order to their people [3]. A few examples include Afghanistan, Somalia, Lebanon, and Congo. Even among this group, different non state actors (such as the Taliban, Hezbollah or al-Qaeda) may seriously challenge the central government and some have been a substitute for governments in providing services [3].

Modernizing states are sovereign nations that tend to be centralized, with the national government closely involved in managing the affairs of the nation [3]. Examples include Russia and China. These countries view foreign non state actors as a threat to national sovereignty and may attempt to ban them outright, regulate them, and/or create their own non state look-alikes such as government-operated NGOs to further government goals.

Developed/post-industrial countries are also found among several modernizing states where nationalism exists but the distinction between domestic and foreign affairs disintegrates so that mutual interdependence among several nations becomes the norm [3]. The members of the European Union are examples of this.

Therefore, it is important to examine the correlation between the role that institutions and non state organizations play and how they have contributed to various nations’ development. Rodrik [15] argue that good institutions and good governance around the world is the key to prevailing patterns of prosperity. Rich nations are those where institutions allow investors to feel secure about their property rights, where laws prevail, where monetary and fiscal policies are grounded in solid macroeconomic institutions, where risks are mediated, and where citizens have civil liberties and participate in government [14]. Those developing nations that are able to revise the rules of the game in the direction of strengthening their preferred institutions have led to an increase in productive capacity [14]. Some of the developing

countries that have strongman, a dynasty, and or a ruling family do not have interest for permitting development of good governance and viable institutions.

HYPOTHESES AND ANALYSIS

Based on our assessment and the literature review we can formulate the following hypotheses:

Hypothesis 1: *Due to globalization pressure on national governments, countries are weakened in their decision making.*

The rising pressure from other countries and the rising demand of their own citizens has forced governments to share their power with other institutions, resulting in decentralization of power in certain areas. As such, a second hypothesis arises:

Hypothesis 2: *Increases in productivity, economic growth, and services through decentralization and privatization cannot be accomplished without the continuous support of national governments, especially in most developing countries.*

Hypothesis 3: *The evolution and development of viable institutions are a requirement for sustainable development and growth during the time that the role of governments is diminishing.*

Hypothesis 4: *the evolution and development of viable institutions and governance are essential for building a democratic system of government that is open to decentralization.*

The above hypotheses formulate the impact of globalization on national and local governments. The issue of decentralization and evolving institutions has become increasingly important. Different degrees of citizenship participation in the political process exist in most developed and developing countries. The history and culture plays significant role in determining the degree of citizen participation. It appears that the impact of globalization upon undemocratic systems of government has been significant and the recent uprisings are the evident. However, in countries with the democratic forms of government, the question is the degree of government participation in economic and social issues which essentially deals with the reallocation of resources. Finally, given the shifts in the power of national governments, the question is how to build viable institutions that are able to operate and can serve the interests of citizens.

Further Studies

Our analysis would require further studies in order to accurately test our hypotheses. In order to evaluate if governments are actually losing influence and power to institutions, we would need to conduct a statistical analysis on existing institutions and methods of decision making in multiple countries and across different regions. This can be examined by looking at various sources of financial contributions, a number of

available resources and other factors that could describe the capabilities of these organizations. A statistical analysis would be more powerful in underlining our assumptions and would help us assess which processes and models have worked in the past. However, a distinction has to be made between countries with different political and religious backgrounds. Latin American countries have been able to set politics and religion apart and have been more willing to open their markets in the face of globalization. The Middle East has not reached this national consensus regarding the role of religion in politics. Historically, it has shown that inclusion of rules and regulations of religion in politics would lead to a discriminatory society which hampers democracy and development. Germany can serve as a benchmark to demonstrate how a balanced governance structure between institutions and the government (which would be heavily influenced by the people) can continue to effectively develop and govern.

CONCLUSION

Globalization has had various effects on the governance of countries and their development. Traditional forms of governments are no longer effective in light of globalization, and new definitions and forms of governance are required. Internationalization has caused national governments to think and act globally; however, it has caused these governments to become less effective in providing governance. As a result, institutions and other non state actors have risen to fill the gap. The result can either help countries to develop further, such as the case of Germany, or fall behind in the way that Saudi Arabia, Lebanon and some of the Latin American countries have done. What has been effective thus far is a balance between representative governments and the use of institutions to help deliver governance. Also, those countries that accepted the concept of "separation of church and state" as a fundamental principal have been able to build representative government, which is necessary to build democracy and have sustainable development. Globalization could lead to a democratic system which will empower its citizens to engage in building institutions that enhances development. This allows for the voice of all to be incorporated into the political process. Democratic governments are the most reliable system to serve their citizens and keep a balance between local, national and global interests.

REFERENCES

- [1] Calame, Pierre. Forum for a new world governance. 2 June 2008. <<http://www.world-governance.org/spip.php?article273>>.
- [2] Chong, Alberto and Florencio López-De-Silanes. Privatization in Latin America: what does the evidence say?, *Economia*, 2004, 4(2), 37-111.
- [3] Council, National Intelligence. New challenges to governance. 2010. <http://www.dni.gov/nic/NIC_globaltrend2020_s3.html>.
- [4] Drezner, Daniel W. Globalization and policy convergence, *International Studies Review*, 2001, 3(1), 53-78.
- [5] Eakina, Hallie and Maria Carmen Lemos. Adaptation and the state: Latin America and the challenge of capacity-building under globalization, *Global Environmental Change*, 2006, 16, 7-18.
- [6] Fandy, Mamoun. *Comparative studies in society and history*. Cambridge University Press, 1999.
- [7] Henry, Clement and Springbord, Robert. *Globalization and politics of development in the Middle East*, Cambridge University Press, 2001.
- [8] Kauneckis, Derek and Krister Andersson. Making decentralization work: a cross-national examination of local governments and natural resource governance in Latin America, *Studies In Comparative International Development*, 2009, 44 (1), 23-46.
- [9] Kettl, Donald F. The Transformation of governance: globalization, devolution, and the role of government, *Public Administration Review*, 2000, 6(1), 488-497.
- [10] Khan, Sorayya and Katie Willis. Health reform in Latin America and Africa: decentralisation, participation and inequalities, *Third World Quarterly*, 2009, 30 (5), 991 - 1005.
- [11] Kraidy, Marwan. *Hypermedia and governance in Saudi Arabia*. University of Pennsylvania Scholarly Commons, 2006.
- [12] Kuran, Timur. Why the Middle East is economically underdeveloped: historical mechanisms of institutional stagnation, *The Journal of Economic Perspectives*, 2004.
- [13] Lin, Justin Yifu, and Jeffrey B. Nugent. 1995. "Institutions and Economic Development, Handbook of Economic Development. Ed. J. Behrman and T.N. Srinivasan, 1995, Volume 3A, Amsterdam: North-Holland.
- [14] Rodrik, Dani. *One economics many recipes: globalization, institutions, and economic growth*. Princeton University Press, 2008.
- [15] —. World Trade Report 2004: Governance and institutions.
- [16] Scholte, Jan Art. *Governance and opposition*. Oxford, UK: Blackwell Publishing, 2004.
- [17] Soliman, Ahmed Mounir. Habitat international, 2003. Regional planning scenarios in South Lebanon: the challenge of rural-urban interactions in the era of liberation and globalization. 2010.
- [18] Stiglitz, E. J. *Making globalization work*, Norton, W. W. & Company, Inc. 2007.
- [19] The World Bank. Lebanon-community development project, 2001, May 29.
- [20] Tocci, Nathalie. "The Impact of Western Policies Towards Hamas and Hezbollah: What Went Wrong?" 2007.
- [21] Wikipedia. Governance. 2010.

Community Identification in Virtual World

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ABSTRACT

There are bountiful numbers of studies about virtual world, which have potential capabilities for enhancements of knowledge sharing, education, enjoyment, and so on. However, a process that how people deeply engage in this new space has been studied insufficiently, and even there are no insightful research models for that. Especially, various communities in virtual world, which are closely related to success of virtual world, have also been studied yet. Therefore, current study suggests a conceptual model that measures virtual community identification levels, which increases their collective efficacy and trust. We hope that this model will cast insight on theoretical virtual world research and practical virtual world development..

I. Introduction

3D immersive virtual worlds, such as SecondLife, are a model of the real world without its physical limitations. According to definition of Wikipedia, Metaverse, a term represents 3D immersive virtual worlds, is collective online shared space created by the convergence of virtually enhanced physical reality and physically persistent virtual space, including the sum of all virtual worlds, augmented reality, and the internet. These new worlds allow a wide range of activities, including game playing, information seeking, team interacting, and commercial acting. These worlds also have great potential capabilities for personal joy and public benefits. Until now, therefore, considerable numbers of studies on virtual worlds have been published. However, most of those studies are not synthetic but fragmentary. Little is known about the social and business aspects of virtual worlds. Even there are no insightful research models for analyzing users' intention to purchase virtual products. Especially, diverse communities in these new spaces have also been studied insufficiently even though those are closely related to virtual world users' satisfactions and behaviors. Our current research, therefore, suggest a new research model that considers users' virtual community identification on their communities in virtual worlds and user's avatar identification on their avatars. We expect that users' virtual community identification produces user's collective-efficacy and

interpersonal trust, and that collective-efficacy and interpersonal trust have significant relationship with outcome expectation and continuous use of virtual products. Similarly, we anticipate that user's avatar identification produces user's self-efficacy and interpersonal trust. We hope that this new conceptual research will give theoretical and practical contributions.

II. Literature Review

Virtual Community Identification

Our first consideration for evaluating successful 3D virtual worlds is virtual community identification. Virtual communities have been characterized as people with shared interests or goals in electronic communication environment [5]. In SecondLife (well-known 3D virtual world), millions of real people have joined thousands of SecondLife community groups to connect, play, talk, and so on (<http://www.seconlife.com>). In such 3D immersive virtual worlds, person does not play alone but he/she play with other like-minded people. This phenomenon implies the importance of virtual community identification.

To provide foundation of virtual identification research, we adopt existing organizational identification theory. Identification is a means by which organizational members define the self in relation to the organization. An organization's identity gives members an answer to this question, "What is the nature of this organization?" [17]. Therefore, the level of organizational identification indicates the degree to which people come to see the organization as part of themselves [7]. Furthermore, by defining the organization, an organization's identity guides members' feelings, beliefs, and behaviors [6].

Generally, research on organizational identification suggest that members who identify strongly with the organization are more likely to (1) accept organizational goals as their own personal goals, (2) attend to superordinate goals, and (3) be loyal and obedient [7]. Organizational identification is expected to correlate with work effort, willingness to perform extrarole behaviors, and task performance [7].

Organizational identification is also critical to sustaining virtual organization, such as Metaverse. For

example, in Second Life, there is always someone to talk to, dance with, learn from. many Second Life users are participating many group in which people who like what you like are there.

Especially, Wiesenfeld *et al.* [18] indicated that organizational identification may help organizations meet some of the most critical challenges of the virtual work context, such as ensuring coordination and control. In a new second world, people can find groups that meet their desires and context, and obtain new enjoyment and knowledge with their members. In sum, organizational identification may be a particularly effective and efficient means by which virtual world communities and members of those communities can accomplish their goals and insure performance. next session, we will discuss about the factors that affect community identification in virtual world.

Image of virtual community

Image of a virtual community is closely related to virtual community identification. Image refers to "the degree to which an individual perceives that use of an innovation will enhance his or her status in his or her social system [12]. Perceived image of a virtual community can attract users of virtual products. Dutton *et al.* [7] also indicated that when members associate with organizations (in this case: communities) that have an attractive perceived identity, it enhances their self-esteem as they acquire a more positive evaluation of self.

Firstly, users of virtual products evaluate many community groups in virtual world. Based on each user's evaluation of external images of community groups, a user may choose the groups they will participate. After participation, secondly, a person's beliefs on image may or may not match a collective organizational identity that represents the members' shared beliefs about what is distinctive, central, and enduring about their organization [1]. If a member feel positive to the image of their community group, this will strengthen the organizational identification [7]. Therefore, we can conclude that image of virtual community may have significant relation with virtual community identification.

Social Support Exchange

Another factor that can effect virtual community identification is Social Support Exchange. Social Support is "the degree to which a person's basic social needs are gratified through interaction with others." ([16], p. 147). In 3D immersive virtual worlds, people want to connect to someone who understands them and gives emotional support to them. For example, some users made another husband or wife in virtual worlds and live another life in those worlds. Consistent with such situations, many studies suggest that virtual communities are places where people go to find emotional support, sense of belonging, and encouragement ([9], [10], [15]). Ridings and Gefen [14] conducted a survey for virtual community attraction, and found that Social Support is the important factor of

virtual community attraction. According to Dutton *et al.* [7], the greater the attractiveness of the perceived organizational identity, the stronger a person's organizational identification. This proposition indicates that Social Support is highly related to virtual community identification.

Positive Effect of virtual community Identification

Organizational identification in virtual world may produce many positive effects. As we mentioned earlier, strengthened group identification enhances members' self-esteem, that is, more positive evaluation of themselves. This enhanced self-esteem is closely related to self-efficacy.

Another important factor that can enhance by organizational identification is interpersonal trust. Cremer and Van Vugt [4] insisted that strengthening their group identification might enhance their trust in the cooperative intentions of fellow group members.

III. Hypothesis Development

According to concepts of previous session, we develop our hypothesis. In our current research, core construct is virtual community identification and avatar identification. As we mentioned earlier, image and Social Support are closely related to virtual group identification. We apply this reasoning to virtual community identification. Hence, we develop our hypothesis as follows:

Hypothesis 1: Image of community group in virtual world will positively affect virtual community identification.

Hypothesis 2: Social Support of virtual community group will positively affect virtual community identification.

Then, our purpose is to examine effect of this community group identification. In the previous section, we review that strengthened group identification enhances members' self-efficacy. In immersive virtual worlds, there is a wide range of team activity, such as seeking enjoyment, sharing knowledge, learning with others, and so on. To accomplish these purposes, self-efficacy is an important element. Especially, our current research examines collective-efficacy [17] in virtual groups. Thus, we develop our hypothesis as follows:

Hypothesis 3: Virtual community identification has significant effect on collective-efficacy of virtual community group.

Another important factor that we consider is Trust. Trust has been discussed in many research area ([8], [11], [13].), including research on virtual system [13]. As we reviewed earlier, strengthened group

identification might enhance trust in group members. Thus, we develop our hypothesis as follows:

Hypothesis 4: Virtual community identification has significant effect on trust.

Then, our next construct is outcome expectation. Outcome expectations exert a significant influence on individuals' reactions to computing technology [3]. Outcome expectations are also an important precursor to usage behavior [3]. Therefore, we use outcome expectation as the measure of successful virtual worlds, which have diverse purpose. According to Bandura [2], outcome may be anticipated by people while judging how well they can perform in a given situation [11]. In other words, people will judge their expected outcomes before taking actions. As a general variable affecting such expectation, many studies testified that self-efficacy has positive effect on outcome expectations ([3], [11]). Next, positive effect of Trust on virtual group performance was already examined [13]. Surely, it is certain that Trust has positive effect on Outcome expectations, which result in Continuous use. Thus, these relationships bridge the belief of efficacy, trust and the outcome expectations. Thus, we develop our hypothesis as follows:

Hypothesis 5: Collective-efficacy has a positive effect on outcome expectations.

Hypothesis 6: Trust has a positive effect on outcome expectations.

Our final hypothesis is about continuous use. The relationship between outcome expectations and continuous use is already examined [3]. Therefore, we can suggest following hypothesis.

Hypothesis 7: Outcome expectations have a positive effect on continuous use.

Acknowledgement

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REFERENCES

- [1] Albert, S., and Whetten, D. Organizational identity. In L. L. Cummings & B. M. Staw (Eds.), Research in Organizational Behavior, 1985, 7, pp. 263-295. Greenwich, CT: JAI Press.
- [2] Bandura, A., Self-efficacy: The Exercise of Control, 1997, Freeman, New York, NY.
- [3] Compeau, D. R., and Higgins, C. A. Computer Self-Efficacy: Development of a Measure and Initial Test, MIS Quarterly 1995, 19 (2), pp. 189-211.
- [4] Cremer D.D., and Van Vugt, M., Social identification effects in social dilemmas: a transformation of motives, European Journal of Social Psychology, 1999, 29 (7), pp. 871-893.
- [5] Dennis, A. R., Poothari, S. K., & Natarajan, V. L. Lessons from the early adopters of Web groupware. Journal of Management Information Systems, 1998, 14(4), 65-86.
- [6] Dutton, J.E., Dukerich, J.M., Keeping an eye on the mirror: The role of image and identity in organizational adaptation, Academy of Management Journal, 1991, 34, pp. 517-554.
- [7] Dutton, J. E., Dukerich, J. M., and Harquail, C. V. Organizational images and member identification, Administrative Science Quarterly, 1994, 39, pp. 239-263.
- [8] Feng, J., Lazar, J., Preece, J. Empathy and online interpersonal trust: A fragile relationship, Behaviour & Information Technology, 2004, 23 (2), pp. 97-106.
- [9] Hiltz, S. R. Online communities: A case study of the office of the future, 1984, Norwood, NJ: Ablex Publishing Corporation.
- [10] Hiltz, S. R., and Wellman, B. Asynchronous learning networks as a virtual classroom. Communications of the ACM, 1997, 40(9), 44-49.
- [11] Hsu, M.H., Ju, T.L., Yen, C.H., and Chang, C.M., Knowledge sharing behavior in virtual communities: The relationship between trust, self-efficacy, and outcome expectations, International Journal of Human-Computer Studies, 2007, 65 (2), pp. 153-169.
- [12] Moore, G. C., and Benbasat, I. Development of an instrument to measure the perceptions of adopting an information technology innovation, Information Systems Research, 1991, 2, pp. 192-222.
- [13] Paul, D.L., and McDaniel, R.R., A field study of the effect of interpersonal trust on virtual collaborative relationship performance, MIS Quarterly, 2004, 28 (2), pp. 183-227.
- [14] Ridings, C. and D. Gefen, Virtual Community Attraction: Why People Hang Out Online. Journal of Computer-Mediated Communication, 2004, 10(1).
- [15] Smith, M. A. Invisible crowds in cyberspace: Mapping the social structure of the Usenet. In M. A. Smith (Ed.), Communities in cyberspace 1999, (pp. 195-219). New York: Routledge.
- [16] Thoits, P. A. Conceptual, methodological, and theoretical problems in studying social support as a buffer against life stress. Journal of Health and Social Behavior, 1982, 23, pp. 145-159.
- [17] Wang S.L., and Lin, S.S.J. The effects of group composition of self-efficacy and collective efficacy on computer-supported collaborative learning, Computers in Human Behavior, 2007, 23, pp. 2256-2268.
- [18] Wiesenfeld, B.M., Raghuram, S., and Garud, R., Communication Patterns as Determinants of Organizational Identification in a Virtual Organization.

Platform Strategy in Open Innovation

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Abstract

This study investigates how to successfully apply open innovation and examines platform strategy as a way to substantiate the open innovation, especially based on the case study in information communication technology (ICT) industry. To do this, this study briefly introduces theoretical backgrounds about the relationship between open innovation and platform strategy, and shows the methodology for further research to identify critical success factors of platform strategy in open innovation.

I. Introduction

Since Chesbrough and Appleyard (2007) introduced a new breed of innovation (open innovation), it has become one of the most frequently mentioned trend in the current corporate strategy. Many successful cases through open strategy have been observed and studied by many researchers over the years (Bonabeau, 2009; Chesbrough, 2007; Eisenmann, Parker, and Alstyne, 2006; Hagel, Brown, and Davison, 2008; West, 2003). Also, many companies and entrepreneurs try to find new potential using open strategy, as open way in innovation seems to provide lots of goodness and guarantee their competitive advantages. However, there still remains some doubt on whether or not open innovation would be always successful in terms of profitability, sustainability, and so on.

In fact, Open innovation demonstrates a quite different environment for competition in various areas of corporate management, compared to that of the past. Only the companies which properly fit this new environment can successfully survive and fully take advantage of open innovation. To do this, open strategy should be applied to right place and in right way. Improper application of open strategy might not only decrease the performance of a firm, but also cause significant crisis.

This study focuses on how to successfully apply open innovation and examines platform strategy as a way to substantiate the open innovation, especially based on the case study in information communication technology (ICT) industry. Openness can cause managerial risks such as leakage of a firm's secret or imitation by competitors, while open innovation provides various potentials. Platform strategy can be the way to minimize such risks and maximize the potential of openness through platform leadership. Once a company come to obtain platform leadership in an industry, its way of business and

technology become the standards of that industry, which makes its competitors not easily compete with the platform leader. Therefore, the platform leader successfully operates in its industry, minimizing the risks of open innovation. The purpose of this paper is to investigate how the platform leadership works and how to gain it in open innovation.

II. Traditional Strategy vs. Open Strategy

There are general differences between traditional strategies and open strategies. Traditional strategies emphasize defensible position against potential competition and power in the value chain. Therefore, constructing barriers to potential emergence of competitors is the key success factor to maintain competitive advantage. In contrast, open strategy focuses on openness as a way to collective creativity and open innovation (Bonabeau, 2009). In fact, many companies have tried open strategy, especially in ICT industry, we can find lots of successful examples of open strategy such as Linux and Facebook. In some areas such as R&D or ICT industry, open strategy has become a kind of trend. Even in some sense, the apparent successes of some examples seem to challenge the traditional strategy.

It seems to be obvious that open strategy has been successful in some areas and shown great potential as an alternative way for companies seeking for new competitive source. However, there are also some skeptical views about open strategy. These opinions pay attention to emerging issues relevant to profitability and sustainability of open business models (Faems, 2008). Actually, several popular examples in ICT industry such as Youtube, Facebook, and Twitter, seem to not have enough revenue models to sustain their services. At this point, traditional strategy might look more persuasive and reasonable.

Considering the magnificent potential of open strategy, we need to find a certain proper combination of openness and traditional approach. In order to sustain a business model in open strategy, a way to capture value created by open innovation is essential (Chesbrough and Appleyard, 2007). Value capture is as much important as value creation. Then, how can companies experimenting open strategy successfully obtain means to capture value? There might be several solutions. Platform strategy might be one of those solutions.

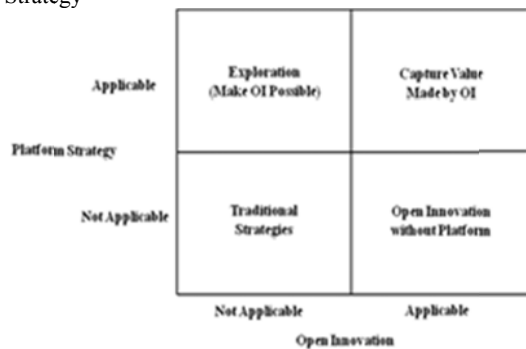
III. Platform Strategy in Open Innovation

3.1. Open Innovation and Platform

There have been many discussions about the definition of an industry platform. One clear thing is that an industry platform is a separate concept from a particular product or service which has proprietary characteristics. Gawer and Cusumano (2008) stated that an industry platform is a foundation technology or service which is indispensable for a broader, interdependent ecosystem of businesses. In other words, an industry platform is distinguished from a product in that it provides a basic environment in which a product or service is developed as a result of the process of ecosystem. Moreover, an industry platform is improved through the interaction among the participants of the ecosystem and therefore, not under the full control of the originator in spite of a certain level of proprietary elements, while a proprietary product is controlled by one company.

This study adopts the Gawer and Cusumano's (2008) concept of an industry platform for developing appropriate platform strategy which can be successful dynamic force to execute open innovation. In fact, open innovation is not almighty and cannot be applicable to all the industries. Likewise, platform strategy might not successfully cover all industries as well. Traditional strategies still function as a basic manual in almost areas and it is right in terms of common sense. However, there are areas where open innovation has been successful and there also seems to be areas where platform strategy can be a catalyst to promote open innovation even though open innovation has not been successful so far. In this light, we can simply think of four cases according to two criteria of application possibility of open innovation and that of platform strategy, as shown in Figure 1.

Figure 1. Coverage of Open Innovation and Platform Strategy



The bottom-left quadrant indicates the areas where traditional strategies are applicable rather than open strategy. For sure, the bottom-left quadrant in Figure 1 might cover the largest portion in real business world, because traditional approach, such as maintaining core competency through keeping operational secrets, still plays a critical role in most

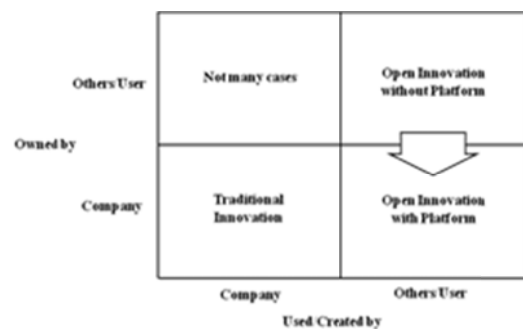
areas. The top-left quadrant represents the area where open innovation has not been successfully applicable but it might be possible through platform strategy. The top-right quadrant refers to the area where platform strategy can enhance open innovation although open innovation is also applicable without platform strategy. In this quadrant, platform strategy can play a critical role in capturing value created by open innovation. In this study, we are interested in the top-right quadrants where the platform strategy can work as a tool to promote open innovation. Especially, this study focuses on ICT industry due to the fact that ICT industry shows clear examples of platform strategy. In this industry, platform strategy plays a role in capturing the value of crowd sourcing and transforming it into a platform leader's asset.

Now, we need to think of where open innovation has been successful through platform leadership so far. First of all, several cases in ICT industry can be typical examples. Linux kernel and Wikipedia are the representative examples of collective intelligence which show community-driven open innovation. In these examples, the platform for knowledge accumulation plays a role in capturing value produced by open innovation. As a result, the accumulated knowledge comes to reside under the control of an organization managing the platform. Thus, collective intelligence can be the examples of top-right quadrant. Social networking sites such as MySpace and Facebook are also included in top-right quadrant in that these companies capture the value made by community through the platform. Youtube could be sold to Google with such a high price because it had the fascinating platform on which thousands of video clips are accumulated in a day.

3.2. Role of Platform

If platform leadership is a critical condition for capturing the value of community-driven open innovation, how has the platform functioned? In fact, the platform endows the platform leader with a type of ownership of the contents produced by the innovation ecosystem, which were not proprietary assets in pure openness. In other words, platform enables platform leader to enjoy the same effects as owning the business resources on their platform, even though these resources actually do not belong to platform leader. As presented in Figure 2, the platform moves an open strategy company from top-right quadrant to bottom-right quadrant.

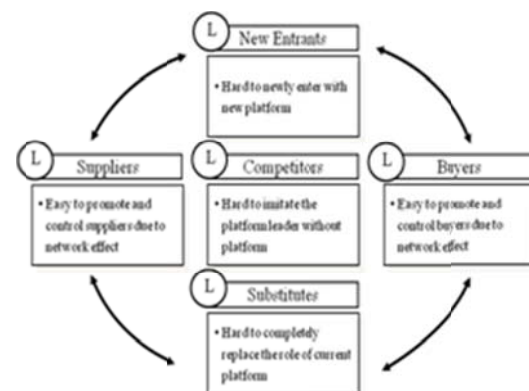
Figure 2. Ownership of Value Created by Innovation



In traditional strategies, some items such as entry barriers, ownership, switching costs, and intra-industry rivalry were significant factors to achieve core competency. However, these factors are considered of secondary importance in open environment, due to the fact that core resources that were considered of primary importance in traditional strategies, do not belong to a particular company any more and all participants of innovation ecosystem easily reach these resources. Conversely, peripheral competitive factors in traditional strategies such as innovation network, community, connectivity, and user participation become more emphasized in open environment. These newly emerging factors are actually the critical items which play a significant role in building a successful platform. As a result, companies do not try to hide their knowledge any more and open it to promote more users to participate in their platform. Now, their main interest is how to manage the innovation ecosystem rather than innovation through hiding managerial secrets. They believe the value from their platform overwhelms the managerial risks caused by the openness of open innovation.

Moreover, platform ownership functions as an obstacle which makes platform owner's competitors not easily imitate platform owner's strategies. Platform is an ecosystem of innovation in which the value of innovation greatly increases as more complementary users participate. Therefore, while creating fascinating ecosystem is very difficult, once a platform leader emerges in an industry, it is rarely probable for its competitors to take over the current platform leadership. Figure 3 presents the competitive environment of platform leader by Porter's (1985) five forces. Current competitors, new potential entrants, and substitutes cannot properly compete with platform leader, as innovation ecosystem cannot be easily imitated like products or services. As for supply and demand chain, network effect maximizes participation of suppliers (contents providers) and buyers (users), leading to platform leader's competitive advantage.

Figure 3. Competitive Environment of Platform Leader



IV. Further Research Plan

According to the characteristics of each industry, critical success factors of platform leadership might be different, because each industry provides different competitive environment. In this study, critical success factors will be investigated assuming ICT industry because the largest portion of successful practices in open innovation has been observed in this industry. However, we believe that these factors might also give an insight for applying platform leadership to other industries. Case study and a conceptual approach will be used to derive critical success factors using relevant previous literature.

References

- [1] Bonabeau, E., Decisions 2.0: The power of collective intelligence, MIT Sloan Management Review, 2009, 50, 45-52
- [2] Chesbrough, H., Appleyard, M., Open Innovation and Strategy. California Management Review, 2007, 50(1), 57-76.
- [3] Eisenmann, T., Parker, G., Alstyne, M. W. V., Strategies for two-sided markets, Harvard Business Review, 2006, 84, 92-101.
- [4] Faems, D., Open Innovation: Researching a New Paradigm – By H. Chesbrough, W. Vanhaverbeke and J. West. Creativity & Innovation Management, 2008, 17(4), 334-335
- [5] Gawer, A., Cusumano, M., How Companies Become Platform Leaders. (cover story). MIT Sloan Management Review, 2008, 49(2), 28-35
- [6] Hagel, J., Brown, J. S. Davison, L., Shaping Strategy in a World of Constant Disruption, Harvard Business Review, 2008, 86, 80-89
- [7] Porter, M., Competitive Advantage. New York: Free Press, 1985
- [8] West, J., How open is open enough?: Melding proprietary and open source platform strategies. Research Policy, 2003, 32(7), 1259

Knowledge Management Strategy and Effectiveness of Organizational Innovation: An Empirical Study in Thailand

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Abstract

The world today is the world of knowledge-based economy. Knowledge management (KM) and innovation have become the vital ingredient for enhancing the competitive advantage in a fast-changing environment. In Thailand, KM was started almost ten years but most executives still lack successful models that they could use as guides. It is important for them to make the explicit connection between their organizational innovation and how they use the KM strategy to support it. The purpose of this paper is to explore the effect of KM strategy on organizational innovation. This study also attempts to find if interaction between industry type and organizational size will influence organizational innovation. A quantitative research design was employed. A total of 3,600 questionnaires were mailed out to companies in knowledge-intensive and non-knowledge-intensive industry and received 560 valid replies. The research results indicate that both codification and personalization KM strategies can positively and significantly affect organizational innovation. Codification KM strategy significantly correlate with efficiency of value chain, speed, new products/ services and quality. While, codification and personalization KM strategies significantly correlate with customization and new customer base. However, the results reveal that there is no interaction effect of codification KM strategy and industry types on efficiency of value chain, speed, new products/ services and quality, customization excepted on new customer base. On the other hand, there is an interaction effect of personalization KM strategy and industry types on efficiency of value chain, speed, new products/ services and quality, new

customer base excepted on customization. The results also reveal that there is an interaction effect of codification KM strategy and organizational size on organizational innovation. On the other hand, there is no interaction effect of personalization KM strategy and organizational size on organizational innovation. This research gives chief executives a guide to make more surefooted decisions about which dominant KM strategy to focus and their investments in it. Therefore, this will maximize benefit of KM implementation and innovation performance of the organization.

The Influence of Expectancy-Value and Behavior Intention on Perceived Risk of Korea Medical Tourism: Focus on Chinese and Japanese Potential Customers

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ABSTRACT

Medical Tourism is a service industry with high value because duration of stay is comparatively long and so the cost goes up. The study will be conducted on Chinese and Japanese people who have never experienced or heard about Korea's medical tourism. By doing so, the study aims to analyze risk factors of choosing Korea as a medical tourism destination. Also, among aforementioned aspects, the study seeks to find out the aspects which form the Perceived Value of medical tourism and if the aspects affect the decision to purchase or to hesitate a medical tourism services.

Key words: Medical Tourism, Perceived Risk, Trust, Purchase Intention.

INTRODUCTION

The medical tourism market is growing immensely as it is drawing worldwide attention. The American consulting firm Deloitte announced that according to its 2008 health report, 3% of the U.S. population has already experienced medical tourism and 2 out of 5 citizens are considering medical tourism [8]. RNCOS stated that 750,000 U.S. citizens left their country for foreign healthcare services in 2007, while the number is expected to exceed 6 million in year 2010 [19].

From a global state, 2.9 million customers left their countries in 2007 to use foreign healthcare services in 5 different Asian countries; Thailand, Singapore, India, Malaysia, Philippines. As a result, a sum of 38 hundred million dollars were marked as the total profit of medical tourism and future forecasts are expecting 6.1 million customers with 75 hundred million dollar profits by year 2012[19].

Medical tourism has high customer contact as it requires individual participation. Products with high customer contact inevitably has high level of perceived risk compared with other general products; therefore, when purchasing such products including tourism or healthcare service, customers tend to minimize the uncertainty as much as possible [1][15].

Perceived value is the customer's overall evaluation on the usefulness of a particular product or service based on the perception on purchasing the product. Nonetheless, perceived value increases as perceived risk decreases. Also, perceived value plays a vital role in enhancing the purchase intention which has an impact on hesitation [6][20][22][26].

Based on previous studies, this study investigates the influence factors on choosing Korea as a medical tourism destination with an empirical approach to the actual purchase.

PERCEIVED RISK

The concept of perceived risk was first introduced by Bauer(1960) in marketing. Perceived risk is presented with risk-taking and risk-reduce in customer behavior. Perceived risk is defined as the customer's feeling of uncertainty and negative outcome related to the provided service [3][10]. Another angle of perceived risk is the customer's subjective expectations on loss [21].

Perceived risk is described as an influence factor in the decision making process. Moreover, perceived risk is the expected loss related to the purchase and also a barrier to the purchase; in other words, risk is viewed as a concept of loss [17].

This study defines perceived risk as the customer's subjective expectation on loss and based on former studies [7][12][18], perceived risk is categorized as financial risk, performance risk, social·psychological risk, and physical risk. Also, medical risk is divided into 3 factors; financial risk, performance risk, and psychological risk. Tourism risk is formed with financial risk, performance risk, and physical risk.

PERCEIVED VALUE

The general definition of value is based on the study by Zeithaml (1988): Value is price, Value is whatever I want in a product, value is the quality I get for the price I pay, and value is what I get for what I give [26]. The four categories of value may be combined as the customer's evaluation on the overall usefulness of the particular product or service based on the customer's perception of the benefits from purchasing the product or service Zeithaml [26]. The concepts above acted as key elements in management strategies in the 1990s and the importance of such concepts has been continuously emphasized [23][25]. The structure of perceived value in the healthcare sector is formed of multiple dimensions; functional value (facility, service quality, price, professionalism), emotional value (novelty, control, pleasure), and social value. In healthcare, functional value (service quality, professionalism, price, installation) is considered to be superior to social and emotional value [4].

According to a research on the influence of perceived value and retail environment on decision making [22], perceived value was proved to be a critical concept in enhancing the purchase intention. In an online auction environment, perceived value is used as a mediating variable in the relation between online trust and online purchase intention [2].

This study distinguishes service with healthcare treatment and tourism, using perceived value as a mediating variable in between perceived risk and purchase intention. Also, perceived value is defined as the correlation between the perceived risk of loss when purchasing a product or service and evaluation of usefulness by the potential customers of Korean medical tourism on a product or service.

PURCHASE INTENTION

Purchase intention is defined as the customer's expectation or plans transforming into action, which is the possibility of converting attitude or belief into action [11]. Purchase intention directly affects perceived value and perceived cost [5]. In a research on the purchase intention across traditional restaurants and fast food restaurants, customer satisfaction had a weak correlation; however, attitude, satisfaction, and loyalty have shown strong correlations in the purchase intention of fast food restaurants [24]. In various researches, purchase intention was shown to have a positive relation with perceived value [9][16][26].

Based on former researches, this study defines purchase intention as the customer's planned action or attitude based on the perceived value, as it is the antecedent factor of the actual purchase.

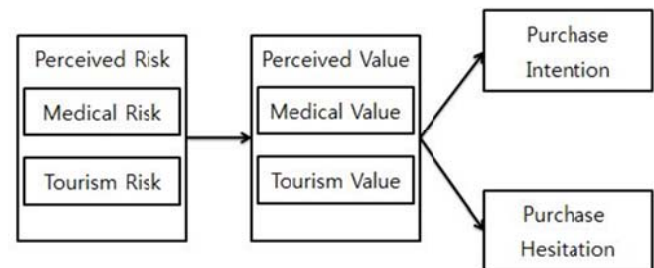
PURCHASE HESITATION

Hesitation is postponing the final purchase decision by having additional processing time before the purchase [6][13]. The fear towards invalidity is conceptually related to hesitation [14]. The strong prediction variables of hesitation are undesirable shopping characteristics, high quality awareness, pressure to make wise decisions in short time, and risk of online security [6]. In other words, hesitation is postponing the purchase or having difficulty in making the final decision due to perceiving uncertainty or possibility of making a mistake. Thus, hesitation is related to both perceived risk and perceived value: an outcome of perception. In previous studies, perceived risk and perceived value are potential factors as well as prediction variables; therefore, high perceived value has a positive influence on hesitation [6].

Based on previous studies, this study defines hesitation as postponing the purchase decision due to the perceived value before experiencing Korean medical tourism. In addition, perceived value is divided into two segments as it is considered to be the mediator in choosing Korean medical tourism as a destination; medical value and tourism value.

Based on previous studies, the conceptual framework of this study is as follows:

FIGURE 1. Conceptual Framework



REFERENCES

- [1] Assael, H., Consumer Behaviour and marketing action, 5th edn, Southwestern College Publishing, Cincinnati, 1995
- [2] B. Chong, Z. Yang and M. Wong, Asymmetrical Impact of Trustworthiness Attributes on Trust, Perceived Value and Purchase Intention: A Conceptual Framework for Cross-Cultural Study on Consumer Perception of Online Auction, In Proceedings of ICEC, 2003
- [3] Bauer, R. A., Consumer Behavior As Risk Taking In R. S. Hancock, Dynamic Marketing For A Changing World, In Proceedings of The 43rd Conference of The

- American Marketing Association, 1960, pp. 389-398
- [4] Cengiz, E., & Krikbir, F., Customer perceived value: The development of a multiple item scale in hospitals, Problems and Perspectives in Management, 2007, 5(3), 252-268
- [5] Chang, T.Z. & Wildt, A.R., Price, Product information, and Purchase Intention: An Empirical Study, Journal of the Academy of Marketing Science, 1994, Vol.22 No.1, pp.16-27.
- [6] Cho, C. H., Kang, J. & Cheon, H. J., Online Shopping Hesitation (CyberPsychology), Behavior and Social Networking, 2006, Vol.9 No.3, pp.261-274.
- [7] Cox, D. F & Rich, S.U., Perceived Risk and Consumer Decision Marketing: The Case Of Telephone Shopping, Journal of Marketing, 1964, pp.32-39
- [8] Deloitte, Medical Tourism: Consumers in Search of Value, Deloitte Center for Health Solutions, 2008
- [9] Dodds, William B., Kent B. Monroe, and Dhruv Grewal, The Effects of Price, Brand, and Store Information on Buyers' Product Evaluations, Journal of Marketing Research, 1991, 28 (August), pp. 307-19.
- [10] Dowling, G. R. & Staelin, R., A Model of Perceived Risk and Intended Risk-Handling Activity, Journal of Consumer Research, 1994, pp.199-134
- [11] Engel, J.F., Blackwell, R.D. & Miniard, P.W., Consumer Behavior, 6th Ed., Dryden, Chicago, Il, 1990
- [12] Jacoby, Leon B. Kaplan, The Components of Perceived Risk, in Proceedings of the Third Annual Conference of the Association for Consumer Research, Association for Consumer Research, 1972, pp.382-393
- [13] Jehn-Yih Wong & Ching Yeh, Tourist hesitation in destination decision making, Annals of tourism research, 2009, Vol.36 No.1, pp.6-23.
- [14] M.M. Thompson and M.P. Zanna, The conflicted individual: personality based and domain specific antecedents of ambivalent social attitudes, Journal of Personality, 1995, pp. 259-288
- [15] Mitchell, V.W., Consumer perceived risk: conceptualizations and models, European Journal of Marketing, 1999, Vol.33 NO.1/2, pp.163-195.
- [16] Monroe Kent B. and R. Krishnan, The Effect of Price on Subjective Product Evaluations, Blacksburg: Virginia Polytechnic Institute, working paper, 1983
- [17] Peter, J. P & Ryan, M. J., An Investigation of Perceived Risk at The Brand Level, Journal of Marketing Research, 1976, Vol.13, pp.184-188
- [18] Peter, J. P. and Tarpey, L. X. Sr., Comparative Analysis of Three Consumer Decision Strategies, Journal of Consumer Research, 1975, Vol.2, pp.29-37
- [19] RNCOS, Tourism Industry - Asian Medical Tourism Analysis(2008-2012), RNCOS E-Service Pvt. Ltd. India, 2008
- [20] Sanjeev Agarwal & R Kenneth Teas, Perceived value: Mediating role of perceived risk, Journal of Marketing Theory and Practice, Fall 2001; 9, 4;
- [21] Stone, R. N. & Gronhaug, K., Perceived Risk: Further Considerations for The Marketing Discipline, European Journal of Marketing, 1993, Vol.27, No.3, pp.39-50
- [22] Swait, Joffre and Jillian C. Sweeney., Perceived Value and its Impact on Choice Behavior in a Retail Setting, Journal of Retailing and Consumer Services, 2000, 7(2), 77- 88.
- [23] Sweeney, J.C. and Soutar, G.N., Consumer Perceived Value: The Development of a Multiple Item Scale, Journal of Retailing, 2001, Vol.77 No.2, pp.203-220.
- [24] Wan Zawiyah Wan Halim, Abu Bakar Hamed, Consumer Purchase Intention At Traditional Restaurant And Fast Food Restaurant, University Utara Malaysia, ANAMAC 2005 conference: consumer behaviour.
- [25] Woodruff, Robert B. and Sarah Fisher Gardial, Know Your Customer: New Approaches to Customer Value and Satisfaction, Cambridge, MA: Blackwell., 1996
- [26] Zeithaml, V.A., Consumer Perception of Price, Quality, and Value :A Means-End Modaland Synthesis of Evidence, Journal of Marketing, 1988, 52(3), pp.2-22.

Impact of Operating Innovation on Organizational Performance in Health Care Industry

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Abstract

This study investigates the effects of operating innovation as IT and training for knowledge and skills, on organizational performance. The purpose of this study is to test the effects of operating innovation on organizational performance in the health care industry. A research model is proposed based on previous studies.

1. Introduction

Innovation is an important factor for competitive advantage and the key to success and growth in any organization (Woodman et al., 1993; Drucker, 1998; Bettencourt, 2010; Chesbrough, 2011). Knowledge-intensive services, such as hospitals are to become “the engine of growth for entire developed world (Chesbrough, 2011).” As service accounts for roughly 80 percent of current economic activity in the U.S., Chesbrough (2011) proposed that “innovating in service is the escape route from the commodity trap and a solution for growth, giving firms a significant competitive advantage.”

Organizations are trying to add value and improve quality of care, and are seeking efficient operation. Operations management (OM) has focused on optimization of operational processes to serve added value to customers and to increase organizational performance (Yee et al., 2008). Although OM has applied efficient operation approaches for improving operational processes in the health care industry, the impact of innovation as a factor of operational process has been overlooked.

This study investigates the effects of operating innovation as IT and training for knowledge and skills, on organizational performance. In summary, a well-organized work environment contributes to increased customer closeness, which refers to total customer satisfaction, and improved service quality based on effective operational processes through innovation.

2. Literature Review

Drucker (1985) defined innovation as a specific tool for entrepreneurs. Van de Ven et al. (1999) defined innovation as “new ideas that are developed

and implemented to achieve desired outcome by people who engage in relationships with others.” Typically, new care services, new ways of patient care, or new technology represent innovation in health care systems (Lämsisalmi et al., 2006; Thakur et al., 2011).

Drucker (1998) suggested sources of innovation: unexpected occurrences, incongruities, process needs, new knowledge, industry change, market and demographic change, and changes in perception. From the previous studies above, this study focuses on innovation to improve operational processes in the health care system. Review of relevant literature for the research is discussed next.

2.1 Operational Processes for Innovation

According to Heskett et al. (1994) and Frei (2008), managers have to support and manage employees to increase task performance, since front line workers are key to improving organizational performance. Thus, the organization provides advanced IT and new knowledge and skills that are easily accessible and consistently used. If one organization has advanced IT, but employees are untrained on this IT, it is essentially meaningless for the employee and by extension the organization itself. To improve operational processes by innovation, organizations must provide sufficient information, knowledge, facilities, and technology support.

2.2 Service Quality

Service quality is influenced by employee satisfaction (Hartline and Ferrell, 1996) and is positively related with customer satisfaction (Babakus et al., 2004). Hartline and Ferrell (1996) presented evidence that satisfaction felt by the front line customer-contact employees is associated with service quality (Ennis and Harrington, 2001). Satisfied employees tend to be more engaged in providing quality services (Hallowell et al., 1996; Yee et al., 2008). Therefore, to improve employees’ attitudes and behavior for their work outcome and organizational performance, employee support develops positive relationships with customers.

2.3 Customer Closeness

Customer closeness in health care can be regarded as an essential factor to deal with patients' needs in their health care treatment, since patients and/or their family are increasingly involved in their care decisions and can access abundant health information (e.g., disease, diagnosis, treatment options, and medical equipment used) (Levine and Birnbaum, 1998). Consumers who are sick, as well as their families, may join disease associations (e.g., American Cancer Society) or interest group associations (e.g., American Association of Retired Persons) and influence health care providers for "access to drugs, diagnostics, services, and devices they consider effective" (Herzlinger, 2006).

2.4 Organizational Performance

Organizational performance has been reported as the result of organizational goals achieved through the effectiveness of strategy or techniques. Most companies measure financial and non-financial performances that are related to certain aspects of strategy and operations in the health care sector (Chung and Lee, 2005). Since health care service is different from other industries to understand customer needs, organizational performance is measured by customer feeling or perception of service quality (Chung and Lee, 2005). Perceived service quality influences repurchasing intentions (Andreassen and Lindestad, 1997; Baker et al., 2002; Petrick, 2004).

3. Research Model and Hypotheses

The proposed research model describes how operating innovation affects service quality, customer closeness, and organizational performance.

According to the National Institute of Standards and Technology (NIST) (2010), which manages the Malcolm Baldrige National Quality Award (MBNQA), one of MBNQA categories examines that "how the organization manages its information technology, and how the organization reviews and uses it to improve its performance (NIST, 2010)." Most organization, including individuals look to advanced IT and useful knowledge and skills to achieve their goals. In the case of health care organizations, those goals pertain to efficiency of operational processes and increased customer satisfaction. Thus, operating innovation may have a positive relationship with service quality, and the following hypotheses are proposed:

H1: IT use for operating innovation will positively affect service quality.

H2: Training for knowledge and skill for operating

innovation will positively affect service quality.

Carpenter (2004) and Li and Benton (2006) suggested that IT systems are effective in collecting data for the patient database to analyze medical treatment, which contributes directly to medical cost of treating a particular disease, and increases customer closeness. Stock et al. (2007) suggested that hospitals need to develop education and training programs for employees, improving patient satisfaction, and quality of care. Thus, operating innovation may have a positive relationship with customer closeness, and the following hypotheses are proposed:

H3: IT use for operating innovation will positively affect customer closeness.

H4: Training for knowledge and skill for operating innovation will positively affect customer closeness.

The service quality is CSFs for improving customer satisfaction. Satisfied customers tend to be loyal customers for the organization. Customer satisfaction and customer loyalty are related to perceptions and attitudes of medical staff. Thus, hospitals provide sufficient organizational support to employees for their work through training and education, communication, advanced IT, and learning opportunities for new knowledge and skills. Higher service quality improves customer closeness and increases competitive advantage. Consequently, the service quality may have a positive relationship with customer closeness and organizational performance, and the following hypotheses are proposed:

H5: Service quality will positively affect customer closeness.

H6: Service quality will positively affect organizational performance.

According to previous studies (Appiah-adu and Singh, 1998; Sawhny and Piper, 2002), there is a positive relationship between customer orientation and organizational performance, as organizations with focused customer value achieve a higher level of organizational performance. Thus, customer closeness may have a positive relationship with organizational performance, and the following hypothesis is proposed:

H7: Customer closeness will positively affect organizational performance.

4. Discussion

This study suggested a research model to investigate the effects of innovation on hospitals. However, the study does not have empirical results using the data, so innovation on operational processes may be based on the needs of global health care market dynamics.

There is a limitation of the study. First, this study did not show empirical results.

Reference

Andreassen, T. and Lindestad, B. (1997). Customer loyalty and complex Services: the impact of corporate image on quality, customer satisfaction and loyalty for customers with varying degrees of Service expertise. *International Journal of Service Industry Management*, 8(4), pp. 1-32.

Appiah-Adu, K. and Singh, S. (1998). Customer orientation and performance: a study of SMEs. *Management Decision*, 36(6), pp. 358-394.

Babakus, E., Bienstock, C., and Scotter, J. (2004). Linking perceived quality and customer satisfaction to store traffic and revenue growth. *Decision Sciences*, 35(4), pp. 713-737.

Baker, J., Parasuraman, A., Grewal, D. and Voss, G. B. (2002). The Influence of Multiple Store Environment Cues on Perceived Merchandise Value and Patronage Intentions. *Journal of Marketing*, 66(2), pp.120-141.

Bettencourt, L. (2010). *Service Innovation: How to Go from Customer Needs to Breakthrough Services*. McGraw-Hill.

Carpenter, D. (2004). Capital and IT. *Hospital & Health Network*, 78 (5), pp.7-9.

Chesbrough, H. (2011). *Open Services Innovation*. JOSSEY-BASS: San Francisco, CA.

Chung, S.H. and Lee, D.H. (2005). Impacts of TQM activities on employee's satisfaction in the support of task process, and on business performance in medical service industry. *Journal of Korea Service Management Society*, 6(3), pp. 57-85.

Drucker, P. (1985). *Innovation and entrepreneurship*. Harvard Business School Press, Boston, Massachusetts.

Druck, P. (1998). The discipline of innovation. *Harvard Business Review*, 76(6), pp.419-157.

Ennis, K. and Harrington, D. (2001). Quality Management in Irish Healthcare. *Service Industries Journal*, 21(1), pp.149 -168.

Frei, F.X. (2008). The four things a service business must get right. *Harvard Business Review*, 86(4), pp. 70-80.

Hallowell, R., Schlesinger, L., and Zornitsky, J. (1996). Internal service quality, customer and job satisfaction: linkages and implications for management. *Human Resource Planning*, 19(2), pp. 20-31.

Hartline, M. and Ferrell, O. (1996). The management of customer contact service employees: an empirical investigation. *Journal of Marketing*, 60(4), pp. 52-70.

Herzlinger, R. (2006). *Innovating in health care-framework*. Harvard Business School, 9-306-342, pp.1-54.

Heskett, J., Thomas, O, Loveman, G., Sasser, W., and Schlesinger, L. (1994). Putting the service-profit chain to work. *Harvard Business Review*, 72(3), pp. 164-174.

Lämsäalmi, H., Kivimäki, M., Aalto, P., and Ruoronen, R. (2006). Innovation in healthcare: a systematic review of recent research. *Nursing Science Quarterly*, 19(1), pp. 66-72.

Levine, M. and Birnbaum, H. (1998). Integrated health management: the patient-centred future of Demand Management. *Disease Management and Health Outcomes*, 3(1), pp.11-22.

Li, L. and Benton, W.C. (2006). Hospital technology and nurse staffing management decisions. *Journal of Operations Management*, 24, 676-691.

National Institute of Standards and Technology (NIST), 2010. (http://www.nist.gov/public_affairs/factsheet/nqa_appdata.htm).

Petrick, J. F. (2004). The Roles of Quality, Value, and Satisfaction in Predicting Cruise Passengers' Behavioral Intentions. *Journal of Travel Research*, 42 (2), pp. 397-407.

Sawhney, R. and Piper, C. (2002). Value creation through enriched marketing-operations interfaces: an empirical study in the printed circuit board industry. *Journal of Operations Management*, 20(3), pp. 259-272.

Stock, G.N., McFadden, K.L., and Gowen III, C.R. (2007). Organizational culture, critical success factors, and the reduction of hospital errors. *International Journal of Production Economics*, 106, pp.368-392.

Thakur, R., Hsu, S., and Fontenot, G. (2011). Innovation in healthcare: Issues and future trends. *Journal of Business Research*, (16 March 2011: On-line first)

Medical Tour Service Segmentation and Positioning Strategy: Based on Service Characteristics and Consumers' Involvement

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ABSTRACT

Medical tourism is a high involvement and high risk service. Because of these characteristics, consumers make decisions either by increasing benefit or by reducing risk. Therefore, there should be different decision making procedures for different types of medical tour services. Consumers may perceive higher risk from medical-oriented tour services while wellness-oriented tour consumers may pay more attention to benefits. In this context, we propose a medical tour service evaluation model that reflects service characteristics and consumers' involvement. Based on the results of this study, we drew some meaningful marketing strategies for hospitals, travel agencies, and governments.

Key words: Medical tourism, Service evaluation process, Perceived benefit, Risk concern, Medical-oriented tour services

INTRODUCTION

It is not uncommon to witness the people of developed countries, where the costs of medical services are exceptionally high, and the riches of developing countries, where the quality of medical services is limited, taking medical tour services in foreign countries to receive high quality but low cost medical services [1]. Many countries with appropriate medical capabilities focus on fostering the medical tour services because of medical tourists' extended stay period and increased expenditure compared to general tourists.

Although existing research show a wide arrange of the characteristics of medical tour services, they seem to overlook an important aspect of medical tour services. Medical tour services are both high involvement, for it may concern life threatening medical issues, and high risk service because it is made up of a number of intangible services [2]. For exiting research overlooking the high involvement and intangible nature of medical tourism services, we can witness some level of limitations in medical tour service evaluations [3]. Then, how can we effectively reflect the two overlooked

characteristics of medical tour services for enhanced evaluation of the service?

In this context, we intend through this research to propose a medical tour service evaluation model that reflects characteristics of the high involvement and intangible medical tour services. In connection with this intention, we will take medically-oriented tour service as an example to confirm the applicability of the proposed model. By utilizing the proposed model, we purport to bring about academic discussions in overlooked aspects of medical tourism and display practical implications for the principal agents of medical tourism such as hospitals, travel agencies, and governments.

THEORETICAL BACKGROUND AND RESEARCH MODEL

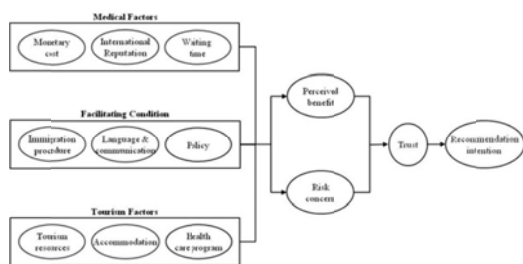
The factors medical tour service consumers consider revealed from previous studies are threefold: medical factors, tourism factors, and facilitating conditions. For medical factors, perceived monetary costs for the medical services, the reputation of the medical service performing party, and the waiting time are often discussed [4][5]. Tourism resources, accommodation facilities, and healthcare program availability are revealed to be some of the tourism factors [6]. Moreover, as facilitating conditions for medical tour services, simplified immigration procedure, the government support, and ease of communication are suggested [4].

Psychologists claim that consumers, when encountered with high involvement and intangible products or services, show a decision making pattern of the conflict between benefit and risk [7]. In such decision process, consumers make decisions either by increasing the benefit or by reducing the risk. Therefore, it is possible to think of different decision making procedures for different types of medical tour services. Consumers may perceive high risk from illness prevention tour services which could bring irrevocable results upon wrongful operations. On the other hand, consumers of wellness tour may pay more attention to benefits of the services than the risk.

Based on the three groups of service evaluation factors mentioned above consumers perceive benefit or risk from the service. By comparing the perceived

benefit or concern, consumers evaluate the service. Consumers' evaluation on a certain service could be measured by their level of trust on the service [8].

Since medical tour service is an intangible and high involvement service, the service is complex and difficult to evaluate. For such services, recommendations or positive WOM by acquaintances who had experiences with the service is extremely valuable for purchasing decisions [9]. Likewise, once consumers build trust on a certain medical tour service, they may grow recommendation intentions, which are vital factors for potential consumers' positive attitude and purchasing decisions toward the medical tour service [10]. Based on these discussions, we propose following medical tour service evaluation model.



<FIGURE 1. Medical tour service evaluation model>

DISCUSSIONS AND IMPLICATIONS OF RESULTS

Interests and investments from both medical and tourism industries are increasing as medical tourism service is proven to be a higher value added services. Specially, the governments of India, the Philippines, Thailand, Singapore, and Malaysia selected medical tourism as the national strategic industry, sparing no efforts on financial supports and political cooperation for making more accommodating environment for medical tourism services.

As it reflects the high interests from the industry, academic research in medical tourism also have been active. However, possibly because of its short academic history, we can witness lack of academic maturity in medical tourism research. One of the immature aspects of this academic field is on the evaluation of medical tourism services which needs to be revisited from accurately understanding the characteristics of medical tourism services.

In this study, we started from the special characteristics of medical tourism services which are high involvement and intangible natures. Recognizing these natures, we developed a medical tour service evaluation model depicting consumers' concern for benefit and risk cognition over the services. To confirm the proposed model, we used a medical oriented tourism service, a representative medical tourism service. Based on the results from this research, we drew some meaningful managerial implications, which follow.

First, upon literature review, we categorized the factors consumers consider when purchasing medical tourism services into three factors of medical, tourism, and facilitating factors and showed the different impacts on the service evaluation from one factor to the other.

Second, in the case of medical-oriented tour service, we found that marketing could be more effective when consumers can perceive lower risk through the promotion. When promoting, it has been the industry standard to focus on the benefits of the medical tourism service instead of reducing risk [11]. Although perceived benefit does have positive influence on consumers' trust over the service, our analyses suggested that the impact of risk concern is higher than the impact of benefit cognition on consumers' trust. Therefore, effective marketing promotions could be expected if the promotions could reduce consumers' risk cognition of the medical-oriented tour services.

Third, in order to reduce the risk concern for medical-oriented tour services basic facilitating conditions as a medical tourism hosting country need to be satisfied. Some of the facilitating conditions as a medical tourism hosting country are ease of communication (i.e., language interpretation), simplified immigration procedures, accommodating medical laws, etc. If these accommodating policies and laws are equipped, it can be expected to reduce the risk concern consumers may have over purchasing medical tourism services.

Fourth, although the core factors appealing to medical tourism services are the medical factors such as low medical costs and short queuing time, additional revenue may incur by including tourism factors such as lodging facilities and wellness programs. Our analysis showed that consumers perceive both medical factors and tourism factors as benefits. Therefore, grafting the two benefit factors should increase the benefit cognition by consumers on medical tour services and may increase the higher value added nature of medical tourism.

On the other hand, there are several limitations to this study. First, in this study, we used the medical-oriented tourism service as an example to draw these implications and the decision making criteria of medical, tourism, and facilitating condition variables. However, consumers' reaction to medical tourism service might change according to service types (cancer examination tourism service, wellness program service, general health screening tour service, etc.) Hence, it is necessary to grasp consumers' reactions to different tourism services in later research.

Second, due to time limits and difficulty in finding the sample who are the actual patients who have taken the medical tour services, this study captures primarily a cross-sectional view of model constructs. Medical tourism is rapidly changing and developing as we speak. The principal agents of medical tourism are also leading and following the changes in medical tourism. Thus, a longitudinal study on the proposed model repeatedly confirming the model with time sequenced data from the same patients would be helpful.

Third, in order to define medical tourism in detail, we showed the difference between medical-oriented and

wellness-oriented tourism services. However, we feel that medical-oriented tourism services, based on the level of illness, could also be further categorized into serious medical surgery, a minor ailment illness prevention well-being tourism and aesthetic tourism. Testing the model by differentiating these services could reveal beneficial implications for the industry. Also, conducting the same test and comparing the results among different medical branches of internal medicine, general surgery, plastic surgery, etc. would be a meaningful future research topic.

Despite the limitations, we expect this study can provide useful insights in practice for the medical tourism industry and evoke more various and detached approaches in medical tourism academic discussions.

REFERENCES

- [1] Gupta, A.S. Medical tourism and public health. People's Democracy, 2004, May(19), VXXVII
- [2] Wang, K., Hsieh, A., Yeh, Y., & Tsa, C. Who is the decision-maker: The parents or the child in group package tours?. Tourism Management, 2004, 25(2), 183-194
- [3] Dinev, T., & Hart, P. An extended privacy calculus model for e-commerce transactions. Information Systems Research, 2006, 17(1), 61-80
- [4] Heung, V.C.S., Kucukustaa, D., & Song, H. A conceptual model of medical tourism: implications for future research. Journal of Travel & Tourism Marketing, 2010, 27(3), 236-251
- [5] Lunt, N., & Carrera, P. Medical tourism: assessing the evidence on treatment abroad. Maturitas, 2010, 66(1), 27-32
- [6] Turner, L. First world health care at third world prices: globalization, bioethics and medical tourism. BioSocieties, 2007, 2, 303-325
- [7] Kahneman, D., & Tversky, A. Prospect theory: An analysis of decision under risk. Econometrica, 1979, 47(2), 263-292
- [8] Coulter, K.C., & Coulter, R.A. Determinants of trust in a service provider: the moderating role of length of relationship. Journal of Services Marketing, 2002, 16(1), 35-50
- [9] Ferguson, R.J., Paulin, M., & Bergeron, J. Customer sociability and the total service experience: Antecedents of positive word-of-mouth intentions. Journal of Service Management, 2010, 21(1), 25-44
- [10] Feick, L., & Higie, R.A. The Effects of Preference Heterogeneity and Source Characteristics on Ad Processing and Judgments about Endorsers. Journal of Advertising, 1992, 21(2), 9-24
- [11] Money, R.B., & Crotts, J.C. The effect of uncertainty avoidance on information search, planning, and purchases of international travel vacations. Tourism Management, 2003, 24, 191-202.

Comparative Research on the Synchronization Level Between Health Security and Economic Development - Shenzhen and Hong Kong as Sample

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ABSTRACT

Shenzhen-Hong Kong full-range Convergence and integration request cooperation in Health care system. In this paper, we use the international common measuring method to evaluate the level of social security in absolute and relative degrees. Improve Prof. Mu's original social security model and introduce population growth, inflation, government input and other related factors in analyzing synchronization level of Health security and economic development of Shenzhen and Hong Kong; innovatively develop a cumulative growth rate rank standard to evaluate the synchronization level. The results show density value and depth ratio of Hong Kong Health security are better than Shenzhen, government burden rate as well; while the wage burden rate and synchronization level in Shenzhen is better than Hong Kong.

INTRODUCTION

The paper analyze the relationship between health security and economic development of Shenzhen and Hong Kong from a microscopic point of view, help to promote Shenzhen and Hong Kong sustainable development and achieve win-win situation through full-range cooperation and integration. Also, provide cross regional cooperation comprehensive reference for Guangdong, Hong Kong and Macau Community and Pan-Pearl River Delta Region.

THEORETICAL REVIEW

Density value and depth ratio are the two common- used indicators to evaluate social security level in international and domestic horizontal comparison.

Density value is the absolute indicator, the formula is:

$$\text{Density Value} = \frac{\text{Social Security Expenditure}}{\text{Total Population}} = \text{Per Capital Social Security Expenditure}$$

Depth ratio is the relative indicator, the formula is:

$$\text{Depth Ratio} = \frac{\text{Social Security Expenditure}}{\text{Gross Domestic Product}}$$

Prof. Mu's W Coefficient based on theory and Cobb - Douglas production function, it is calculated through a decomposition of depth ratio formula by multiplied

an equal variable both up and down and switch to transform to two coefficients. W represents the wage burden of citizens in health expenditure.

$$\text{Depth Ratio} = \frac{\text{Social Security Expenditure}}{\text{Social Wage}} \times \frac{\text{Social Wage}}{\text{GDP}} = W \times H$$

To evaluate relationship between health security and economic development, usually use direct comparison between depth ratio growth rate and GDP growth ratio. To observe whether proportion of health expenditure in GDP alter with changes of GDP itself.

ANALYSIS IMPROVEMENT

Reference to Prof. Mu's W Coefficient, we add another G Coefficient to present government burden.

$$\text{Depth Ratio} = \frac{\text{Social Security Expenditure}}{\text{Government Expenditure}} \times \frac{\text{Government Expenditure}}{\text{GDP}} = G \times H$$

Most of the analysis method listed in perverse passage is base on Ratio comparison. However, there's a major defect in Ratio comparison. Use depth ratio as sample, if we transform the formula a bit, we will find out that the value of depth ratio can't be accurate enough to represent the influence of population and price status.

$$\text{Depth Ratio} = \frac{\text{Per Capital Social Security Expenditure} \times \text{Total Population} \times \text{CPI}}{\text{Per Capital Gross Domestic Product} \times \text{Total Population} \times \text{CPI}}$$

To solve this problem, we innovatively develop ratio between two cumulative growth rates to evaluate level of synchronization. Use health security cumulative growth rate as sample, procedure listed below:

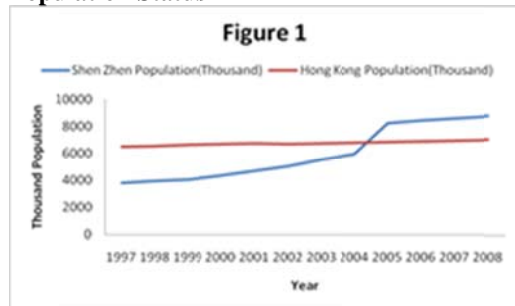
- $\frac{\text{Social Security Expenditure}}{\text{Total Population}} = \text{Per Capital Social Security Expenditure} = \text{Density Value}$
- Nominal Depth Ratio \times CPI Multiplier = Real Depth Ratio
- $\frac{\text{Real Depth Ratio (Year X)} - \text{Real Depth Ratio (Year X+1)}}{\text{Real Depth Ratio (Year X)}} = \text{Real Depth Ratio Growth(Year X)}$
- $\prod_{i=1}^X \text{Real Depth Ratio Growth(Year i)} = \text{Real Depth Ratio Cumulative Growth Rate}$

DATA SOURCES

Data of this paper are mainly collected and calculated from statistic report or yearbook published from 1997 to 2008 by Shenzhen and Hong Kong government institutes, including Shenzhen Statistics Bureau, Shenzhen Health Bureau, Shenzhen Social Security Bureau, Hong Kong Census & Statistics Department, Hong Kong Hospital Authority, Hong Kong Food & Environmental Hygiene Department, etc.

EMPIRICAL ANALYSIS

Population Status



Population Status is a key factor to influence per capital social security level. According to Figure 1, Shenzhen's total population was expanding, increased from 3.8 million to 8.8 million in 12 years, total growth rate reached 130% and annual growth rate valued about 11%, which can be inferred that Shenzhen's per capital social security level will be declined due to local demographic characteristic. However, Hong Kong's total population remained approximately 7 million, maintained in a stable low-growth status, average annual growth rate of only value 0.6%, which might provide population bonus in per capital social security level.

CPI Multiplier

Inflation is an important factor to influence health care input's purchasing power. The one of the most popular indicator to evaluate currency purchasing power is CPI (Consumer Price Index). CPI Multiplier is base on annual CPI. Simply speaking, Fix the first year CPI as 100, then multiple the following CPI year by year till the target time spot to calculate the target year's CPI Multiplier. This method provides a relative value which compares the fix-base year and the target year in inflation to assess real currency purchasing power.



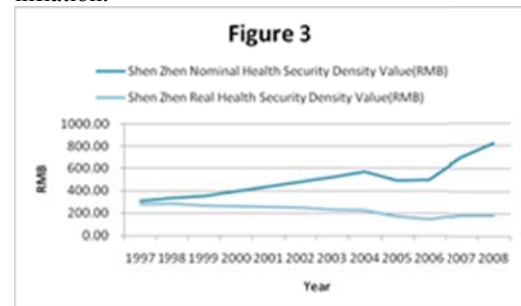
According to Figure 2, Shenzhen CPI maintain in an upward trend, CPI multiplier in 2008 reached the highest value 460.8, which mean due to inflation, commodity price in 2008 is about 4.6 times compare to the same period in 1996. This result infers inflation has not been

effectively controlled in Shenzhen, health expenditure purchasing power may declining. While in Hong Kong, CPI multiplier went through a period of first decreased then increased, even CPI multiplier recovery after the watershed is 2002, the final CPI multiplier in 2008 still under 100, which indicated inflation has been effectively controlled in Hong Kong, health expenditure purchasing power may have bonus due to stable price management.

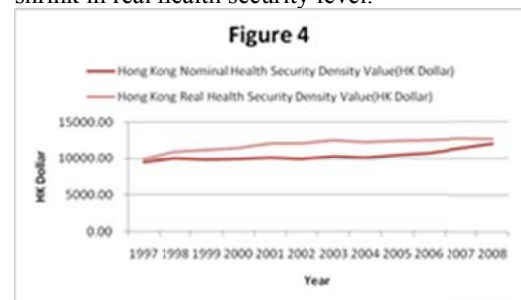
DENSITY VALUE & DEPTH RATIO

Nominal and Real Density Value Comparison

Density value already contain population status, the introduction of CPI Multiplier will provide two types of the Density value: Nominal and Real. The nominal one will use the current price, while the real one includes the sustained effect of inflation.



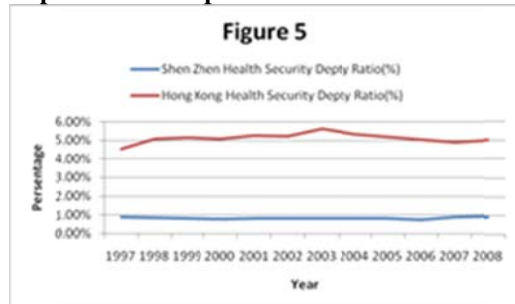
According to Figure 3, Shenzhen nominal density value in health security rise from 300 to 800 RMB per person, with total growth rate value 168% and annual growth rate value 14%. However, the real trend of density value was accelerating decrease, 36% total decline and 3% annual decline. Poor management in price and population control may led to the apparently shrink in real health security level.



According to Figure 4, Hong Kong nominal and real density value both have a 26% total increase and a 2% annual growth rate. Although the speed is not as fast as Shenzhen's nominal density value, but the real value actually rank higher than the nominal one, which indicated successful management in inflation may let Hong Kong government using less fund to

achieve same security level compare to Shenzhen.

Depth Ratio Comparison

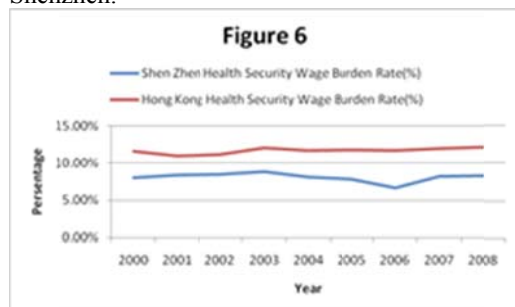


According to Figure 5, depth ratio in Shenzhen stable below 1% in 12 year and its average value 0.82%, while Hong Kong depth ratio fluctuated between 4.5% to 5.6% and its average reached 5.1%. Relatively speaking, as depth ratio present the status of health expenditure as a component of macroeconomic, Hong Kong depth ratio value about 6 times compare to same period in Shenzhen, which indicate health care in Hong Kong play a more important role in economic than Shenzhen.

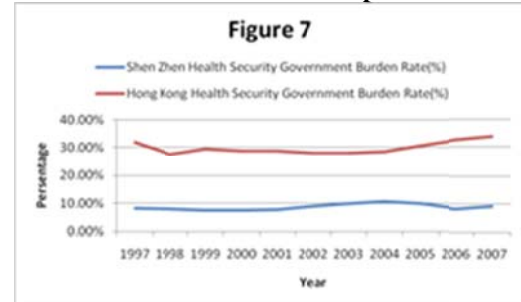
WAGE & GOVERNMENT BURDEN

Wage Burden Rate Comparison

According to Figure 6, Shenzhen wage burden rate volatilized from 6.61% to 8.83%, average rate value about 8.07%. Hong Kong has no apparent difference compare to Shenzhen, volatilized from 10.94% and 12.12% annual rate valued about 11.63%. Hong Kong appear to have a higher wage burden rate, maybe due to its aging society problem which require higher health care support, medical care burden for citizens in Hong Kong is much heavier than Shenzhen.



Government Burden Rate Comparison



According to Figure 7, Shenzhen Government Burden Rate volatilized from 7.6% and 10.5%, annual average reached 8.7%; While in Hong Kong, value volatilized from 26.6% and 33.7%, annual average about 29.5%. Relatively speaking, as government burden rate present the responsibility of government in health security, Hong Kong government input 3 times or more financial support than Shenzhen government did form 1997 to 2008. Health security is more likely to provide as public goods in Hong Kong compare to Shenzhen.

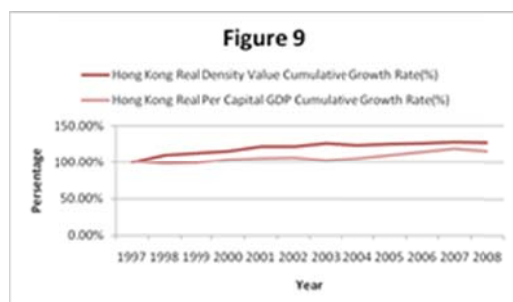
In theory, lower wage burden rate with higher government burden rate is more suitable for health security in macroeconomics. Results show Shenzhen is better in ower wage burden rate, while Hong Kong is better in higher government burden rate.

SYNCHRONIZATION BETWEEN HEALTH SECURITY AND ECONOMIC DEVELOPMENT

Real Density Value and Real Per Capital GDP Cumulative Growth Rate Comparision

According to Figure 8, Shenzhen real density value and real per capital GDP cumulative growth rate almost share the same decline trend to about 60% in relative level, the distance between real density value and real per capital GDP only reached 1.83%.





According to Figure 9, Hong Kong appear to have a rising trend in two cumulative growth rates and the health expenditure is even higher than economic growth, the distance between them reached 9.51%.

Evaluate Synchronization Between Health Security & Economic Development.

Now, Combine Figure 8 and 9 together, we have Figure 10 to evaluate the synchronization level.

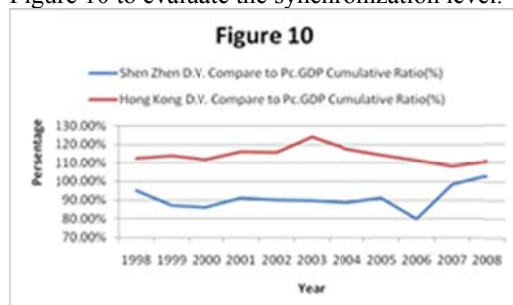


Figure 10 is a very special, it use line 100% as the central dividing line, extend 3 units both up and down. To understand its meaning, we define line 100% to be status when health security & economic development completely fit to each other, growing in the exact same speed, which mean 100% synchronized. If the ratio value more than 100%, is mean the health security is developing quicker than economic does, vice versa. If the health security development is transcend than the economic, the financial support from the society may not be sustainable. Meanwhile, if health security is lagged compare to economic development, the economic itself maybe slow down due to worker health status deterioration.

To make the quantitiy level more easy to recongnized and fit social and nature discipline, we intorduce Fibonacci numbers (1,1,2,3,5,8...) to be the standard in ranking synchronization level, for it fits golden proportion and normal distribution.

The rank list is written below:

Presentage	Synchronization Rank
(120%-140%)	Transcend Development
(110%-120%)	Basically Synchronized
(100%-110%)	Highly Synchronized
100%	Completely Synchronized
[90%-100%)	Highly Synchronized
[80%-90%)	Basically Synchronized
[60%-80%)	Lagged Development

In accordance with the above synchronization rank criteria, Shenzhen achieve highly synchronization interval in 1998, 2001, 2005, 2007 and 2008, only decrease in 2006 to Lagged Development interval, other years are at basically synchronization interval. The overall synchronization rank focus on highly synchronization interval but appear to have relatively lagged status in health security compare to economic development. Thus, Shenzhen should be appropriate to strengthen health care input to support the economic growth. However, Hong Kong mainly settled in basically synchronization interval, except 2007 in highly and 2003 in transcend. Health care in Hong Kong general advanced economic development and lasted for a long time, should be appropriate consider improving economic development provides long-term sustainable health care economic support.

CONCLUSION & POLICY RECOMMEND

Density value and depth ratio of Hong Kong Health security are better than Shenzhen, government burden rate as well; while the wage burden rate and synchronization level in Shenzhen is better than Hong Kong. Shenzhen government is recommended to emphasis on population and CPI management, control the excessive growth of health costs, reduce the excessive use of health services, increase government contribution via financial input and promote Shenzhen health insurance system. Meanwhile, Hong Kong government is recommended to appropriately reduce health expenditure, increase government investment in private companies and public facilities, support the economic sustainable to ensure long-term financial reserve for health care system and macroeconomic.

References available upon request

Application of Adaptive Structuration Theory for Successful Implementation on the SOA Enabled ERP System

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ABSTRACT

Despite being around for decades, ERP implementations continue to prove to be very challenging, with a number of project failures being reported. To identify the reasons for failure and to improve the process, there has been extensive research applied in the academic area. ERP implementation requires total organizational efforts in corporate culture change and in most cases, the complete reengineering of organization structures. Most research has now started applying communicational and sociological concepts to understand the cultural aspects of users better and to improve its chances of implementation. One such theory is Anthony Giddens' Structuration Theory, which explains human agency and its relationship with society.

Introduction

Enterprise Resource Planning (ERP) Systems is arguably one of the most important investments a company can make in order to integrate its business processes. While it started merely as a concept in the mid to late 20th century, currently almost every large company now has either an ERP system installed, or is in the process of installing one. According to AMR research, ERP is a 23.4 billion dollar industry with five companies, SAP, Oracle (who bought Peoplesoft and JD Edwards), Sage Group, Microsoft Dynamics and SSA Global (who bought over BAAN), controlling over 72% of the market. SAP having literally recreated the industry from scratch, continues to be the market leader by far and has close to 42% of the market share. Oracle is now catching up by adopting an inorganic growth strategy. Its recent takeovers has now catapulted it into the number two spot in the ERP market, which is predicted to grow further, and is looking at consolidating its service offerings. The ERP system has become the most popular sought out solution for top management because it attempts to integrate all departments and business processes across several organizations onto a single computer system. It manages the value chain in an incorporated manner, handling together its human resources, production, inventory, logistics, orders,

billing, shipping, sales, customer service and many other business processes (Geffen, 2004).

IT projects have generally been notorious for its cost and time overruns. According to the Standish Group, not only do over 50% of projects not see the light of day, but when it comes to ERP system implementation, its failure rates are much higher than any other IT projects. Over 90% of ERP implementations have ended up over time and over budget, even the ones that are considered to be successful (Kelly, Holland and Light, 1999; Shanks *et al.*, 2000). For instance, Kmart had to write off \$130 million on an ERP investment, for their implementation had never even been close to success. The fabled case of Fox Meyer's bankruptcy could be blamed on a number of reasons, yet its implementation project is easily the one responsible for its business failure (Scott 1999). Despite this, the ERP system continues to be a popular, high profile choice among many organizations.

While there are arguably many problems that occur due to ERP, a successful project can result in a significant improvement in the business process and in the cost savings in the long run. Jeri Dunn, Vice President and CIO of Nestle, USA, states that their ERP implementation has saved them close to \$325 million within the first two years of implementation. Additionally, several researchers such as Ranganathan (2005) have successfully explored the direct relationship between an ERP implementations and the increased market value of an organization. Shang (2003) classifies the benefits of implementing ERP systems under five categories. First, the organization's operation management will be improved through cost and lead time reduction, and improvements in its productivity, quality and customer service. Second, the system will result in better business resource management and performance control through a shared database. Third, the ERP system works to integrate all partner organizations in the supply chain, improving its strategic benefits by supporting business alliances and by building external linkage with suppliers, distributors and related business parties. Fourth, the capability of the IT infrastructure will be increased through improved business flexibility, which will result in a reduced IT

cost. Finally, all of these improvements will help to reorganize the organization as a whole, to an enhanced and standardized business process that has been structured to help the organizational culture maintain a higher morale and satisfaction among its employees. Recently, larger ERP vendors have started to focus on Small to Medium Sized Businesses (SMB) to sell the system, for the market is huge in this space. According to Robert Anderson, Research Director of Gartner Inc., the IT addressable spend of the European SMB market was \$141 billion and was forecast to grow to \$275 billion in 2006. SAP and Microsoft, both big players in this market space, have introduced a number of new products to address the needs of the SMB sector. SAP, by far the market leader, has brought in SAP Business One, Sap by Design and All in One, while Microsoft has addressed this space with its wide range of Dynamics products. Both companies have clearly expressed their interest to be big players in this industry with their recent public statements and news releases. SAP has adopted a number of innovative ways to address this market space, including introducing a number of microverticals, which are preconfigured versions of their product for specific industries (in line with their Industry Specific (IS) Verticals of SAP). Additionally, SAP has started working closely with its vendors to introduce a number of add-on products to enhance the features of the product. Microsoft on the other hand, has released its latest version, Dynamics GP (Version 10.0), with the intention of bringing all the different ERP packages (Navision, Axapta, Great Plains and Solomon) under the Dynamics Umbrella. The competition between these two companies has led to the ongoing recreating and redefining of the SMB market space.

Statement of the Problem

The ERP system is essentially made up of an integrated set of computerized processes and rules that manage how a company should work. It has been developed based on the software developers' experience with implementing a solution in different industries and from that experience, a collection is gathered of the most successful practices. This in return, results in various assumptions having to be made about how certain operations should be conducted in an organization. However, since no company is alike, an ERP system, despite being highly configurable, imposes patterns of behavior on organizations that sometimes is almost impossible to implement. Seddon *et al* (2003) states that if the client organization is not careful, it may find the enterprise system in the driver's seat and defining how the business should be run. Complications can arise when customization and configuration needs are significant, or during times when the implementer or the client is confused about the true implications of the customization, therefore throwing the entire project off track. These difficulties can lead to the question of why exactly an ERP system poses such significant problems of implementation and project failure. The

most succinct explanation for this is given by Davenport (1998), who explained that, "An enterprise system imposes its own logic on a company's strategy, culture and an organization." Furthermore, Markus *et al* (2002) presents a list of the following reasons why ERP adopters have faced problems with its implementation, such as:

- Not first improving business processes where this needs doing
- Lack of top management support
- Cutting end-user training time and expense
- Users resistance against the system
- System integration - integrating the system with legacy systems and add-ons
- Approaching ERP implementations from an excessively functional perspective - trying to integrate all functionalities from day one rather than a module by module implementation approach
- Migration issues – Technical and people oriented

As mentioned among the reasons suggested above, the fact that businesses processes are not improved primarily imposes the most significant problem during the implementation. This makes implementing difficult since it requires the reengineering of the organization's business processes. According to Mintzberg (1979), structure reflects natural work and communication flows and although most structures represent real organizational needs, some are imposed artificially. As the needs of the organization changes, its structure needs to match these changes, with employees interfering with the established patterns of behavior. The formalization of this behavior is the design parameter by which the work processes of the organization are standardized and where an ERP implementation can be directly influential (Mintzberg, 1979). Therefore, in order to be successful, the reengineering of an organizational and culture change would need to be prioritized as a top endeavor and simply cannot be viewed as a software implementation for a set of people working together. While there would be no issues or problems with any ERP system implementation if the company had the ability to start operations with implementers or consultants who would build the system from the ground up, this is seldom the case. Therefore, this research will address and place its focus on the obstacles that might arise during the organizational change and training needed to make an ERP implementation successful.

Purpose of the Research

The main tenant of applying communication theory in IS research is to show that information technology is the product of subjective human action within specific structural and cultural contexts. This research would like to find out why all the existing modern computer technology in information systems and communication fields still fails to deliver the promised benefits that the ERP system vendors and top management anticipate.

Conclusion

There is no question about the benefits that come with implementing an ERP system. However, despite being one of the most important software solutions for an organization, the percentages for success are still quite low. It is not a simple project to handle and the cooperation of all parties involved is needed, starting right at the top. Although projects can pose significant technical challenges, the real challenge is persuading the company employees to actually apply it within the organization. There is a significant amount of research done showing how sociology or communication can help organizations in understanding the assimilation process of ERP system implementation. Despite the fact that the Structuration Theory provides the foundation for the research, the Adaptive Structuration Theory (AST) is the one that can provide solutions for successful ERP implementation. At the same, this is still nascent and efforts in this area need to continue. The theoretical model recognizes that managing knowledge for the ERP system is an ongoing lifecycle-wide activity that extends beyond the implementation. This involves a process where generated knowledge is used and then improved and re-used, with the involvement of many stakeholders of the lifecycle. Nonetheless, it is important to emphasize the execution of continuous training and that special attention is paid to academic research that offers vital tools in order to make an ERP implementation successful.

REFERENCES

- [1] Anderson, R (2005), Gartner Inc - The SME Market Challenge – clearing your way to success
- [2] AST Theory: Retrieved from website (March 12, 2010) - http://www.tcw.utwente.nl/theorieenoverzicht/Theory%20clusters/Organizational%20Communication/AST_theory.doc/
- [3] Barley S (1986) Technology as an Occasion for Structuring: Evidence from Observations of T Scanners and the Social Order of Radiology Departments *Administrative Science Quarterly*
- [4] Boudreau M, Robey D (2005) Enacting Integrated Information Technology: A Human Agency Perspective *Organization Science*
- [5] Chin, W. W., Gopal, A., & Salisbury, D. (1997). Advancing the Theory of Adaptive Structuration: The Development of a Scale to Measure Faithfulness of Appropriation. *Information Systems Research*, 8(4), 342-367.
- [6] Conner, D (1993) *Managing at the Speed of Change*, Villard Books
- [7] Davenport, H (1998); *Putting the enterprise into the enterprise system*, Harvard Business Review.
- [8] DeSanctis, G., & Poole, M. S. (1994). Capturing the Complexity in Advanced Technology Use: Adaptive Structuration Theory. *Organization Science*, 5(2), 121-147.
- [9] Gefen D (2004) What Makes an ERP Implementation Relationship Worthwhile: Linking Trust Mechanisms and ERP Usefulness, *Journal of Management Information Systems*
- [10] Giddens, A; *The Constitution of society* (1984)
- [11] Gopal, A., Bostrom, R. P., & Chin, W. W. (1992). Applying Adaptive Structuration Theory to Investigate the Process of Group Support Systems Use. *Journal of Management Information Systems*, 9(3), 45-69.
- [12] Market Analytix Report: Enterprise Resource Planning, 2004-2009, <http://www.itjungle.com/tfh/tfh062005-story03.html>
- [13] Markus M, Axline S, Petrie, D, Tanis C (2002), *Learning from Experiences with ERP; Problems encountered and Success Achieved*
- [14] Marchewka, J *Information Technology Project Management : Providing Measurable Organization Value*, John Wiley and Sons (2006)
- [15] Mintzberg, H *The Structuring of Organizations: A Synthesis of the Research*, Prentice hall Inc 1979.
- [16] Orlikowski, W (2000) Using Technology and Constituting Structures: A Practice Lens for Studying Technology in Organizations, *Organization Science*
- [17] Orlikowski, W (1992) The Duality of Technology: Rethinking the Concept of Technology in Organizations *Organization Science*
- [18] Robey D, Ross J and Boudreau M (2002); *Learning to Implement Enterprise Systems: An Exploratory Study of the Dialectics of Change* *Journal of Management Information Systems*
- [19] Sahay, S., and Robey, D. (1996) Organizational context, social interpretation, and the implementation and consequences of geographic information systems. *Accounting, Management and Information Technologies*
- [20] Rose J (2001) Structuration theory and information system development: Frameworks for practice, The 9th European Conference on Information Systems
- [21] Seddon P, Shanks G and Wilcocks L ; *Introduction: ERP – the Quiet Revolution; Second wave ERP systems*, 2003, University Press
- [22] Shang, Shari and Seddon, B, *A Comprehensive framework for assessing and managing the benefits of ERP systems: The Business Manager's Perspective* (2003)
- [23] Theory of Structuration, Retrieved from website (March 12, 2010) - <http://en.wikipedia.org/wiki/Structuration>
- [24] Walsham, G (2002) *Cross-Cultural Software Production and Use: A Structural Analysis* *MIS Quarterly*
- [25] Westervelt, R *SAP gains visibility among small Businesses*, http://searchsap.techtarget.com/originalContent/0,289142,sid21_gci1196471,00.html

Are the Factors Affecting the Quality of IS Projects Identical in Large Corporations and Manufacturing SMEs?

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Abstract

The purpose of this research is to investigate the differences of factors influencing IS project quality between large corporations and small and medium manufacturing enterprises (SMMs), and to examine whether the moderating effect on the system type including enterprise systems and unit systems exist or not. To this end, a questionnaire survey was carried out. 100 responses were analyzed. The results showed that the factors influencing IS project quality in large corporations and to SMMs were different. In addition, moderating effects on the system type existed. This is the first empirical study to discover that the factors are not the same between the large companies and SMMs. The implications and conclusions are also explained.

Keywords: IS project quality, Small Manufacturers.

1 Introduction

In spite of the importance of IS projects quality and high project failure rate, existing researches predominantly have been done in the critical success or failure factors on IS implementations and performance measurement focusing on large corporations. However, the results of these studies could not be equally applied to SMMs whose IT knowledge is neither systemized nor specialized, and whose management and support for the implementation and utilization of IT are not sufficient. Therefore, this research will examine whether the factors affecting the quality of IS projects in large corporations have equal effect on the quality of IS projects in SMMs. Furthermore, the implementation of unit systems that are generally employed for a single department, such as sales management systems, and enterprise systems which demand complexity in project scope, participating personnel, and costs including ERP and SCM could have different factors. Accordingly, the impacts of system types on the quality of IS projects will be uncovered with the analysis of moderating effect.

2 Previous Research

Since the late 1980's researches have been carried out actively with the emphasis on the failure factors of IS projects. To find out the failure factors, these researches have defined the reasons for the failure in many ways, but most of the approaches were taken in terms of cost, time, and quality (Lee-Kelley and Loong, 2003).

Iacovou et al. (2005) considered project cancellation that is abandoned before their completion as failure, and stated that 15% of all IT projects are cancelled. Lyytinen and Hirschheim (1987) defined 'Correspondence Failure' as information systems not meeting the system design objectives; 'Process Failure' as not developing in the allotted time and budget; 'Interaction Failure' as end users judging the system as failure; 'Expectation Failure' as not meeting the needs, expectations and value of stakeholders.

3 Research Model

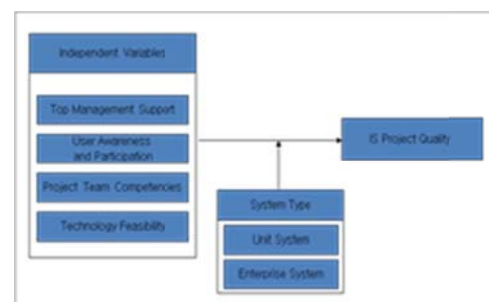


Fig. 1. Research Model

The first factor is top management support which enables fluid distribution of resources including user participation during project process, and thus having critical influence on the success or failure of a project. In other words, top management's attention and support raises the user's interest in the project; strengthens the authority of the project team; facilitates the procurement of resources and budget; and pacifies the conflict within the organization. Morris (1996) stated top management's active

participation in the project had a significant impact on a project's outcomes. In addition, the biggest obstacles facing Korean SMMEs in adopting IS were lack of top management commitment (TIPA, 2006).

The second factor is user participation. User participation enhances the user's understanding regarding the system and enables the development of system in accordance with user's requirements. By enhancing quality and reducing resistance to change, user's attitude toward the system subsequently improves, thus the building of mutually beneficial relationship can eliminate any communication problem (Park, 2000).

The third factor is project team competencies which play an important role in determining the outcome of a project. Brewer (2005) pointed out competency as an important capability of the project leader. He also mentioned the core competencies of an effective project leader to be communication, relationship, project management strategies, and negotiation. In the research by Cho (2006), a conflict of opinion between team members and users, lack of information sharing among team members, and disagreement among team members were empirically investigated and validated as the project's risk factors.

The fourth factor deals with technology feasibility of which Wallace and Keil (2004) defined risk factors as the use of new technologies, the use of unfamiliar development techniques, technical complexity and unrefined techniques. Kim (2002) and Barki et al. (1993) pointed out that a technically complex project is the reason for project failure. Also, Schmidt et al. (2001), Boehm (1989) and Moynihan (1997) indicated the use of new untested technologies as the project risk factor. Lee (2002) indicated the use of new unproven technologies, technically complex projects and lack of flexibility of the system affect the quality of IS projects.

Unlike large corporations, SMMEs may not have the resources and capability for the quality of the IS project, and thus the following hypotheses were presented.

Hypotheses H 1

Hypothesis H 1-1: Top management support in SMMEs does not affect the quality of the IS project.

Hypothesis H 1-2: User awareness and participation in SMMEs do not affect the quality of the IS project.

Hypothesis H 1-3: The project team's competencies in SMMEs do not affect the quality of the IS project.

Hypothesis H 1-4: Technology feasibility in SMMEs does not affect the quality of the IS project.

Recently, many information systems have been developed and implemented. Information systems can be categorized into the unit systems used by individual departments of the company and enterprise systems (e.g., ERP) used by all departments of the company. In the enterprise systems which can be considered as large-scale IS implementation project, the project manager's expertise and experience are important, and the overall project handling skills, such as coordination and control, supervision, and job

performance are required. Especially long-term complex interoperability enterprise systems require high input of resource, hence the expertise on software development is necessary. Therefore, the enterprise systems differ from the unit systems in project range, personnel involved, cost, and project complexity and in consequence the differences can be found in the failure factors as well.

This study presented the following hypotheses to investigate how each failure factor arising from different system types impacts the IS project quality.

Hypotheses H 2

Hypothesis H 2-1: Type of system will have a moderating effect on the relationship between top management support and the quality of IS project in SMMEs.

Hypothesis H 2-2: Type of system will have a moderating effect on the relationship between user awareness and participation, and the quality of IS project in SMMEs.

Hypothesis H 2-3: Type of system will have a moderating effect on the relationship between the project team's competencies and the quality of IS project in SMMEs.

Hypothesis H 2-4: Type of system will have a moderating effect on the relationship between technology feasibility and the quality of IS project in SMMEs.

4 Empirical Analysis

4.1 Data Collection and Variable Definition

In this study, a survey was conducted both on the SMMEs that failed IS projects and on system integration (SI) companies that have the experience of the IS project failure with SMMEs. Prior to the survey, a pilot test was carried out by visiting four companies. Afterward, the questionnaire was modified, and the final questionnaire was distributed via e-mail and on-site visit.

The questionnaire consists of three major parts. First, the general information regarding the company was composed of five questions: personal information, company status (industries), company size (medium-sized, small-sized) and IS project experience, and so on. Second, the factors concerning the company's failure in the IS project comprise of 15 questions. Third, the questions on the IS project quality and the role at the time of project were asked. The five-point Likert scale ranging from 'strongly disagree' to 'strongly agree' was used. The total of 118 survey questionnaires were collected, among which 18 were disregarded due to incomplete data. The rest of 100 responses were used in data analysis.

4.2. Factor and Reliability Analysis

SPSS 12.0 was used for the survey analysis prior to hypothesis testing, and the factor analysis was used to measure the validity of the constructs.

Cronbach's alpha coefficient was used to test reliability. On this study, the results of the coefficient value were higher than 0.7 indicating relatively high reliability.

4. 3. Hypothesis Test

Multiple regression analysis was used to identify the factors affecting the quality of the IS project.

Table 1. Results of Regression Analysis

Independent Variables	β	t	p-value	F	R^2	Hypothesis Tests Results
Intercept	1.129	2.992	.004			----
Top Management Support	.154	1.483	.141			Accepted
User Awareness and Participation	.047	.457	.648	4.549 (<.0021)	0.161	Accepted
Project Team Competencies	.174	.1416	.160			Accepted
Technology Feasibility	.141	.1491	.139			Accepted

In the results of the multiple regression analysis on the hypothesis H1, the regression equation of the quality test model showed 16% of the variance at the significance level of 0.01. Since all factors did not have effect on the quality of IS projects, all hypotheses were accepted. This result indicated that existing factors affecting the quality of IS project targeting large-sized companies do not have any effect on SMMEs.

For the hypothesis H2, Model1 (correlation between top management support and the type of system), Model2 (correlation between user awareness and participation and the type of system), Model3 (correlation between project team competencies and the type of system) and Model4 (correlation between technology feasibility and the type of system) were analyzed. The results of the multiple regression analysis confirmed that the moderating effect caused by the correlation between four factors and the type of system was significant.

5 Conclusion

The implications of this study are as follows. First, the existing factors affecting the quality of IS projects targeting large corporations do not have effect on SMMEs. This is consistent with the assertion by Raymond (1990). He explained that organization size, organization resources, and organizational decision-making time-frame have effect on information systems outcome. In the large companies, job specifications are standardized and managed periodically by the set

rules and thus, providing high ability to respond to various situations.

Second, upon analyzing the moderating effect on the IS project influence factors by system types, the study found that the system types are influenced by the moderating effect on the quality of the project.

The results of this study have the following theoretical and practical implications. Since the academic and practical interest on the factors affecting the IS project has been growing, the researches on this subject are spotlighted. However, the researches are mainly confined to large-sized companies and public institutions, and on the other hands, researches on the quality of IS projects in SMMEs are limited.

In this study, the findings on the existing project risk factors targeting large corporations are applied to SMMEs through the empirical study, and it was revealed for the first time that the factors of large corporations can not be applied to SMMEs. In addition, this study provides practical implications. These results indicating the factors affecting IS projects between large companies and SMMEs could be used as a guideline for successfully introducing IS to SMMEs. Instead of independently implementing IS, SMMEs may rely on outsourcing that includes the use of ASP (Application Service Provider) or cloud computing.

ASP makes it possible for companies to maintain IT equipment and software in a data center outside of the organization. ASP provides applications, IT infrastructure and customer support to its customers using the Internet. The utilization of the ASP reduces the burden of initial costs and hinders the unnecessary system expansion by minimizing internal IS requirements. Furthermore, the total cost of owning IT including H/W purchase costs, S/W designing costs, upgrading costs and maintenance costs could be drastically reduced. Moreover, IT costs can be predicted by paying the monthly flat fee, and IT costs can be accurately controlled by eliminating indirect costs such as license management fee. ASP is built around standardized software, thus lowering the failure risks of quality. However, the lack of trust in the ASP process and the difficulty in customizing organizations needs are some of the problems to be solved in the future.

6 Limitations and Future Research

The purpose of this study was to find out the differences between the factors affecting the quality of IS projects in large corporations and SMMEs. The results of the research proved that the factors are different. However, this research is not intended to identify the factors affecting the quality of IS projects in SMMEs. Thus, future research is necessary on these factors, in addition to research on the critical success or failure factors by industry.

References

References will be available on request.

A Study on a BSC Model for Managing IT Outsourcing Performance

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ABSTRACT

The purpose of this paper is providing conceptual model through the BSC not only to measure the benefit of IT outsourcing quantitatively and qualitatively but to help monitor its performance continuously. The BSC(Balanced Scorecard), which supplements traditional financial measures with intangible aspects such as customer, internal business process, and innovation and learning perspectives, has been applied to information technology in order to evaluate IT performance fairly. The proposed model is designed to measure the performance of IT outsourcing from four perspectives (net benefits, IT service quality, IT outsourcing operation, learning and growth). Both practitioners and researchers will be able to gain tips on how to measure IT outsourcing performance with the proposed model. And if computerised, it would be used as a monitoring tool for IT outsourcing management. Empirical evidence for the model's validity and reliability, however, is yet to be made for its application to the real business cases.

INTRODUCTION

IT is equipped with a function that provides a service that can be shared at an enterprise-level. Even for its high start-up(first fixed) cost, it is widely utilized through an outsourcing by many companies because of its benefits from economies of scale that a large size supplier can bring about in a sense that service can directly influence an enterprise's core competence. Consequently, the demand for an establishment of the standards in regards to the management and evaluation method to support the suitable level of restrictions and compensation in relation to the performance of IT outsourcing(ITO) service by both the service provider and the customers is continuously increasing.

The issue regarding the evaluation method of the benefits delivered by ITO has been attracting attentions of participants in the academic as well as in the business world. However, due to the difficulties in quantifying the benefits from such IT facilities, it is somewhat limited to apply financial variables such as ROI (Return on Investment), NPV (Net Present Value),

or even IRR (Internal Rate of Return) and etc. In fact, the practical ITO performance evaluation method that is widely used on sites is the Service Level Agreement(SLA), which is discussed and agreed upon by both the service provider and the customer.

However, SLA is also limited for evaluating the overall performance in a sense that its evaluation indices are composed of variables that only concentrate on the aspects regarding operations of ITO. The research on the application of BSC, which allows for an on-going management by utilizing the evaluation method for both tangible and intangible resources, towards IT performance evaluation method, has continuously been carried out in an effort to provide an evaluation method that can be applied towards exercising the strategy of an enterprise in an effective way. This allows not only for a financial effect but it also allows for a company to maintain its strategic goals, thus to make evaluating different perspectives of interested parties within the organization as well as to manage them on an on-going basis possible, which is one of the main reasons why BSC is considered the most suitable tool for evaluating IT performances. However, previous BSC related researches are insufficient to explain the whole process of performance evaluation, including collection, measurement, and evaluation of data and feedback, and it can only be so useful for explaining conceptual aspects.

For this reason, this research will draw four different perspectives based on the BSC concepts in order to evaluate and manage the performance of ITO as well as to suggest a new BSC with SLA and Service quality indices for each index required.

THEORETICAL FOUNDATIONS

IT BSC

Through the perspective of business contribution, IT BSC allows for an evaluation of performance affiliated with enterprise-wide BSC. Especially, Grembergen [1] suggested a development of the step-by-step coordinated BSC, which includes IT strategy, development as well as its operations.

However, Grembergen's research only embodies the coordination between IT strategy and the business that requires IT performance evaluation but it did not make any suggestion regarding a way to manage the overall performance by developing indices, evaluating performances, and providing feedbacks.

The General Accounting Office [2] in U.S. suggested in their case study a performance-evaluating framework based on empirical data related to BSC affiliated IT performance evaluation of leading institutions as well as government institutions for the performance evaluation of IT coordinated with a company's strategy.

The four main perspectives are composed of performance evaluation processes which are based on satisfying an organization's strategic needs, satisfying individual customer's needs in regards to IT products and services, enhancing the performance of internally operated IT operations (products and services) to be provided to individual customer and organization, and accomplishing continuous innovations along with the development of information technology as well as emerging new technology.

GAO's model effectively suggests a series of performance management processes. However, this is limited in a sense that its practicality of materialization due to its simple theoretical approach to grasp the coordination between IT strategy and the business itself is quite vague.

BSC, it focuses on the measurement of the overall IT evaluation but it is somewhat impractical to be applied in evaluating the performance of ITO.

SLA (Service Level Agreement)

Williams et al [3] also carried out researches in regards to factors that may bring about constructing a successful outsourcing. The main emphasis in these researches is the fact that a successful outsourcing stems from the clear statement of the contract between a service provider and a customer, especially the portion where the performance evaluation process is described. In other words, it suggested that it can be materialized in a SLA.

SLA is a technical contract that defines the responsibilities of corresponding service contents as well as the standards of performance evaluation. At the same time, it is the legal contract to fulfill the community of interest between the services provider and the customer [4]. SLA defines that stating the potential effect of outsourcing as the target will bring about a continuous enhancement to the IT service. In addition, it allows for an effect of resolving disagreement between the outsourcing service provider and the customer through the quality of service evaluated by objective measurement and explicit standard as well as to forming an effective communication between two parties all through a consensual agreement and evaluation of SLA under review.

SLA, in perspective of a customer business, evaluates the importance in order to manage the targeted level of service contents, which will allow for an efficient

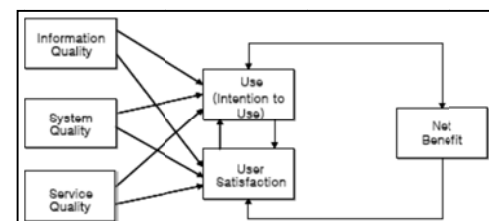
investment and an effective resource distribution of the IT service to be practiced. In contract to such benefits, it is problematic for a customer and an outsourcing service provider to consent to a certain level of achievement or even the SLA evaluation criteria suitable for each customer because of their differences in views. Furthermore, SLA is only viable for the evaluation of performances from the perspectives of an ITO operator. In other words, SLA is somewhat fragmentary and biased in this sense.

Service Quality

The main researches regarding the quality of service have been led by Parasuraman, Zeithmal and Berry (called PZB hereafter). PZB defined the quality of service as "difference between a customer's quality expectation of the service and the actual quality of service experienced by the customer." Based on this two factors (expected quality of service and perceptual concept), they have developed the SERVQUAL model [5]. In other words, the quality of service is presented when the level of actual experience of customer is higher than the level of quality that he/she was expecting [6]. There are many researches that have been carried out based on this fundamental concept. In fact, this can act as a tool to properly evaluate the performance of facilitating IT service through the process of measuring the quality of an organization that actually utilizes IT service. It is necessary for the concepts of the quality of service to be embedded in evaluating the performance ITO since its main goal is to increase the quality of a service.

DM IS Success Model

DeLone and Mclean combined about 180 different researches previously carried out in order to simplify and organize variables that may influence the successful operation of information system. Main variables are categorized into six major domains, which are, system quality, information quality, use, user satisfaction, individual impact, and organizational impact. Once the variables are categorized into different domains, their correlations with other variables are technically modeled, which is the DM IS Success Model that they suggested [7]. In addition to the empirical researches carried out using this very model, elements such as service quality is added in later stage as well as the user's intention or user satisfaction that may affect the user himself/herself and even the society as a whole to ultimately analyze the net benefit of the system to extract the correlation model as it is shown in figure 3 [8].



[Figure 3] DM IS Success Model

By applying the indices presented in the DM Model, it is possible for the service quality of IT service to be measured. In other words, by making use of the indices derived from information quality, system quality, service quality and etc, the overall quality of information system service can be analyzed. Furthermore, the net benefit that can be realized from this very process can be used to ultimately analyze the results from the utilization of system.

IT Outsourcing BSC

In this research, based on the facts described previously, a new perspective of BSC will be suggested. By applying the provider's perspective as well as quantified indices, the learning and growth perspective in which the outsourcing service provider tried to improve itself as well as the perspective related to the outcomes of outsourcing operation measured by SLA operation indices are discussed. In addition, two other perspectives will be discussed: perspective of an information system user regarding how he/she measures the overall quality of the service and the perspective of the results of utilization from making use of the system.

[Table 1] Categories of Perspectives

Net Benefits	IT Service Quality
<ul style="list-style-type: none"> • Reductability • Transparency • Productivity 	<ul style="list-style-type: none"> • Work system quality • Information quality • IT system quality
IT Outsourcing Operation	Learning and Growth
<ul style="list-style-type: none"> • Ratio of on-time Service Request • Ratio of on-time Change Request • Ratio of Errors occurrence • Ratio of similar error reoccurrence 	<ul style="list-style-type: none"> • Issues suggest for system improvement • SLA performance improvement • Understanding of the working system • Training hours

In **Net Benefits perspective**, the ultimate result sought from the utilization of Information System is measured through the level of perception of users regarding Reductability, Transparency, and Productivity. Generally, outcomes are often measured based on the financial outcomes. However, there are limitations in evaluating the result financially. Thus, more accurate way of carrying out would be to evaluate whether or not the planned goal has been achieved through the utilization of IT.

In **IT Service Quality perspective**, SERVQUAL method is utilized to measure the service quality of Information System maintained by outsourcing in order to measure the quality that cannot be done with quantitative indices. By implementing the indices used by the popular Delone and MacLean Model, the overall quality of the information system must be

grasped rather than to figure out the satisfaction rate of each service content.

In **IT Outsourcing Operation perspective**, it measures the items in relation to maintenance operation that can be measured. This measures the compliance rate for providing the service with the users through the compliance rate for delivery of requested service on time. In addition, it also measures the processing rate for handling errors, which explains how fast an outbreak of an error can be handled. Furthermore, the probability that such errors can occur is estimated by keeping track of such events. Information system is mandatory for processing users' operations and thus it must not be stopped unless it is scheduled to for a checkup, which explains the needs for measuring the working rate of information system as well.

In **Learning and Growth perspective**, an evaluation of how much effort the maintenance company itself is putting into improving operations is carried out. Even if there is no trouble or error at the moment, a suggestion for improvement must be viable whenever required and at the same time the problematic issue must be spotted and resolved before it critically influences the operations. Evaluating the level of understanding of the operation and education hours can also provide the minimum level of knowledge. A continuous performance management allows for a comparison of the performance level with the previous ones to improve the process of maintenance.

CONCLUSIONS & FURTHER RESEARCH

In this research, the limitation of performance evaluation method for formal outsourcing is suggested and at the same time it suggests the Balanced Scorecard with the new perspectives as well as new indices. This will allow for customers who are exposed to IT outsourcing service to establish a performance evaluation standard to estimate the potential benefits from outsourcing. At the same time, the IT outsourcing service provider will be able to analyze the relationship between IT outsourcing operation and its performance to further carry out a systematic management to acquire trust from the customer.

However, further researches regarding the ways to derive detailed indicators must be progressed. Empirical evidence for the model's validity and reliability, however, is yet to be made for its application to the real business cases.

REFERENCES

References will be provided on request.

Information Security and Compliance Management

Chen, Q. Jim
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Zhang, Ruidong
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ABSTRACT

Information security management presents a challenging task to many organizations. This paper reviews the challenges and proposes a centralized approach. A case study is used to demonstrate some important security compliance strategies.

INTRODUCTION

In today's digital information age, companies are dealing with massive amount of data that are created through business transactions. Much of the business data is confidential and requires carefully designed security programs to prevent data breaches and meet regulatory security requirements. Poor security management often leads to security breaches, litigation, and severe damage to business reputation. According to Privacy Rights Clearinghouse, there were 687 cases of security breaches involving more than 14.97 million customer records in the period of 2010 and the first two months of 2011 [1]. Customer class lawsuits against TJX's 2007 data security breaches affecting 94 million credit and debit cardholders had cost the company US\$168 million [2]. Lack of security management also increases the risk of non-compliance which can results in severe penalty. For example, in 2006 Morgan Stanley paid a \$15 million fine to settle charges of its failure to provide tens of thousands of e-mails requested by Security Exchange Commission (SEC) during the investigations[3].

Information security compliance management is challenging because of its pervasive and multi-functional nature. The three components of the information security are confidentiality, integrity, and availability. Confidentiality is the protection of privileged information from unauthorized access. Integrity is the safeguards of data accuracy and consistency from any compromise by intentional or unintentional human actions. It also implies the protection of information integrity from damages caused by natural disasters such as floods or earthquakes. Availability means that the information

must be made readily available to anyone who is authorized to access. These three requirements at times could be in conflict. For example, excessive security measures could hinder information availability. Inadequate access control measures can leads to unauthorized data alteration, hence damage to data integrity. A carefully design security management program can provide a balance among the three requirements.

Traditional approaches in addressing security challenges rely heavily on the security technologies. Whilst technical means are helpful in protecting confidential information, they are seldom sufficient in providing dependable security and information assurance required in an increasingly treacherous security landscape and highly regulatory environment.

This paper discusses a case study of an institutionalized security management and compliance program. It highlights the importance of creating a culture and organizational structure that enforces and monitors the security practices on a daily basis. The case also demonstrates that security and compliance policies, educational programs, and technology solutions are all important components of an effective security compliance system.

CASE STUDY

Allina Hospitals and Clinics is a not-for-profit healthcare system that serves the health care needs of communities throughout Minnesota and western Wisconsin [4]. Allina Hospitals and Clinics consists of 11 hospitals, 46 medical clinics, 15 community pharmacy sites, three ambulatory care centers, and more than 40 other clinics and specialty care centers. Allina group has more than 23,000 employees, 5,000 physicians and 2,500 volunteers. Allina's 2009 net operating revenue was \$3.2 billion [5].

Allina was facing an array of compliance challenges such as patient safety, health information security, billing, and financial reporting. Allina's approach to

the challenges can be characterized as centralized with a strong commitment on culture building from the top management.

Culture Building, Education Programs, and Evaluation

Allina has a history of placing great emphasis on building its organizational culture for security practices for both patient safety and compliance.

Allina was known to be the groundbreaker in promoting the idea of involving individuals who have made mistakes to help establish processes to help avoid errors in the future. In October 2000, Allina received two medical safety awards from the Institute for Safe Medication Practices, a Huntingdon Valley, Pa.-based not-for-profit organization.

An integral part of Allina's effort to build a culture of compliance was its training program for new hires and existing employees. New hires must complete Orientation Compliance Training within 30 days of hire. The employees are required to complete either "Level One" or "Level Two" annual compliance training based on job functions.

Allina's compliance training program did not end with training itself. It was designed with monitoring, auditing, and ongoing evaluation and reporting. A key instrument used to measure compliance effectiveness was the quarterly compliance scorecards, see Figure 1

Quarterly Compliance Scorecard -- ____ Quarter 2006

Date:	Hospitals	Clinics	Transportation	Homecare
Compliance Structure:				
Compliance Education				
• CJA Obligations				
Standards and Procedures Review				
Business Unit Reporting Mechanism				
Business Unit Program Oversight				
Compliance Awareness				
Compliance Process:				
Assessment/Prioritization of Business Unit Risks				
Evaluation, Remediation and Implementation of Business Unit Risk Assessment				
Response				
• CAP Timely Filed				
• Ongoing Monitoring Effective				
Prevention				
• Key Compliance Indicators				
HIPAA Privacy & Security Compliance				
• Education				
• Business Associates				
• Other				
Compliance Outcome:				
Compliance Audit Error Rate				
Total:				
Rating:				

Compliance Audit Error Rate Point Key	
0 - 5%	50 Points
6 - 15%	40 Points
16 - 20%	30 Points
21 - 25%	20 Points
26% +	10 Points

Evaluation Key	
80 and above	Green
60 and above	Yellow
59 and below	Red

Figure 1 Compliance Scorecard [6]

Institutionalizing Compliance Practices

Allina recognized the importance of formal structure in addressing security compliance issues. In September 1999 when the Transaction and Code Set Standards Regulation of HIPAA were being finalized,

Allina developed a HIPAA Program Management Office, led by Jeremy Edes Pieritti to coordinate compliance efforts with Allina's many business units. Since then, Allina's compliance program has steadily been improved and had become one of the most rigorous and comprehensive programs in the nation due to its well established formal compliance structure.

Allina compliance program is guided by its philosophy: "doing the right thing—each and every time." [7] The goal is to consistently and fully comply with all laws and regulations.

To implement a comprehensive compliance program, Allina first identified the areas or scope of business that were affected by the regulations, see Figure 2. The scope covers six major concerned areas. Then a security compliance program structure was created, see Figure 3 (omitted to save space).

Developing Policy and Procedure

Allina compliance policies and procedures can be grouped into two categories: system-wide and business unit specific. System-wide policies and procedures are developed by corporate compliance department and approved by the Compliance Oversight Committee to cover the responsibilities and obligations of all Allina Business Units regarding their role in complying with particular law or regulation. For example, the system-wide policy titled "HIPAA Privacy and Security Documentation Standards" [8] was developed to provide the policies and standards of Allina with respect to documentation required for compliance with the HIPAA regulations. The policy covers Notice of Privacy Practices, Complaints about Privacy Practices, Report of Disclosure, Access to Protected Health Information, Disciplinary Action for Violations, Documentation Retention to name a few. System-wide policies and procedures provide a basis for workforce training and facilitate business units to develop their specific policies and procedures.

Technology Solutions

Allina Hospitals and Clinics had relied on many disparate legacy systems for tracking patient information, clinical operations, and managing revenue cycle. Patients were asked for the same information multiple times. Health information sharing among healthcare units was delayed because of disconnected disparate systems. Duplicate effort was needed for health information protection and reporting at Allina's many different business units. Meeting HIPAA document standards and privacy protection was a challenge.

In 2002, Allina's senior leadership charged two teams to create an Electronic Medical Records vision. The two teams ultimately created the vision of "One patient. One record," [8] which calls for building one system that could integrate clinical process, care experience, and business processes across all clinic sites and system hospitals while improving the patients experience.

Allina launched the EMR project named Excellian in 2003 and created a four-year implementation plan. By June of 2007, the EMR system had been successfully implemented at its 11 hospitals and more than 65 clinics. The new EMR system provided a single source of patient information securely made available anytime and anywhere, streamlined human resource management, improved clinical operation efficiency, enhanced health information protection, and ability to meet the various regulatory requirements and audits.

The EMR system housed 4 million patient records and 14 million documents. It accommodated 28000 EMR users and 56000 MyChart users (patient users) [9] Keeping such a large system secure was the top priority. Allina's access strategy was "access with accountability." Each user had a unique user ID and password. Allina employees were held personally accountable for anything they do that was deemed inappropriate. All employees were subjected to annual review of confidentiality and protection of patient health information addressed in Allina Employee Standards of Business Conduct. Non-employee users were required to sign a system user agreement that specifies expectations of use of the ID, password and electronic patient health information.

For added security for certain type of patients, "Breaking the glass" security feature was implemented. When an unauthorized user is about to access a protected patient record, a strong warning message will be displayed and the user's name will be sent automatically to the management if the user proceeds.

Record and Document Management

The Allina EMR system streamlined and standardized record and document management. In the past, redundant data of patients and multiple versions of the same document existed in different business units. The transition to a "One patient, one record" EMR system has eliminated data redundancies, and simplified data integrity management. Consequently, it greatly improved Allina's ability to respond quickly for any

data inquiry, government audits, and reporting requirements.

The implementation of the OnBase Enterprise Content Management solution, a document imaging management software, for Allina's human resource departments has dramatically improved the document management practices. Allina employed approximately 23,000 people over 20 business locations.

With the new system, all the documents were stored digitally in a central location and accessible in a secure manner anytime and anywhere. Searching and sharing document became as easy as a click away. The implementation process helped Allina to re-evaluate file contents and document retention policies. Working with the corporate legal department, the HR examined 338 document types to determine the most appropriate retention policies to meet various regulatory requirements. Allina's successful implementation of the EMR system made it the industry leader in embracing technology to deliver high quality healthcare service.

CONCLUSIONS

Information security compliance management in today's tight regulatory environment is a challenging task. A centralized approach with top management commitment to compliance is recommended. A well designed compliance program with adequate security technology support can reduce a company's risk of lawsuit and meet regulatory obligations while saving substantial corporate resources.

Building a culture of security practices and compliance, institutionalization of compliance structure with vested authority and responsibility, training, and deployment of effective technology solutions are important components for an effective security compliance program.

REFERENCES

[1] Privacy Rights Clearinghouse at <http://www.privacyrights.org/data-breach#CP>

[2] Security Breach at TJX, retrieved on February 20, 2011 from <http://cb.hbsp.harvard.edu/cb/access/6458351>

Complete references are available upon request

A Customer Migration in Korea Smart Phone Market

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ABSTRACT

As the Information & Communication Technology (ICT) market became matured and saturated, there have been many research efforts made to understand customer behaviors to switch a service provider in the ICT market. However, most of previous studies did not intend to provide meaningful explanations on several diffusion effects caused by the unique characteristics of the ICT market such as the swing effect, the bandwagon effect, and the winner takes it all effect. A few research attempted to deal with the phenomenon of the ICT market but did not relate such phenomenon to a customer migration or fail to show the dynamics of the phenomenon as most of the research were empirical studies based on the statistical research methodologies or were limited to the macro perspective of the ICT diffusion in general.

With intent to resolve such limitation and further advance from the previous studies, this research constructed a simulation model by adopting the agent based model in which the dynamics of the customer migration can be observed by setting up a relationship between actors and attributes. The frame and concept of the model used in this research were designed by modifying the Civil Violence Model by Epstein to appropriately reflect the phenomenon of the ICT market. The model used the current Korea wireless market which recently introduced a series of smart phones. This research observed particular patterns of the Korea ICT market and found several factors that influence the customer migration, such factors as responsive incremental technology innovation, service quality, customer satisfaction, market share, and network effect. One of the major findings is that by a disruptive technology innovation coupled with a successful

strategy a follower can take over a major portion of the ICT market that was previously dominated by a first mover and that the first mover will need to consider a fast follower strategy to sustain its market share and competitive advantage. The model used in this research is believed to be in certain degree useful for a market strategy planning, especially in a situation where a new company enters into a market as a follower and needs to come up with a strategy that will trigger a customer migration, because the model can illustrate how the contributing factors come into play and interact with one another to eventually cause customers to switch from one provider to another and the interpretation of the illustration can help predicting some meaningful result of a certain strategy.

I. Introduction

According to the latest statistics by the International Telecommunication Union (ITU), by the end of 2010, there were an estimated 5.3 billion mobile cellular subscriptions worldwide and access to mobile networks is now available to 90% of the world population and 80% of the population living in rural areas. In an ICT market situation where a first mover enters in a new market and manages to dominate the market, the market share rate would remain constant for a while as the market is saturating, a market share which is extremely high.

Therefore, this study intends to observe the aspects of ICT market diffusion in the saturated market by focusing on the movement of customers in the market, to build a model using the agent-based model to examine the dynamics of customer migration, and to explain some phenomenon that were not dealt in the previous studies, some effects such as swing effect,

bandwagon effect, and winner takes all situation. This study will also explore some scenarios which will show the overall likelihood of the customer migration due to various factors related to the incremental technology innovation.

II. Literature Review

Collective behavior and action

The term 'collectivity' refers to a set of people with a common interest in the group. These sets are usually classified in the form of crowd, mass, or public. Crowd is defined as a collection of people who has the same interest and the same attitude towards a common interest, a group of people gathered together by accident. Mass is a larger scale of people than the crowd but an individual in the mass can possess a heterogeneity and be anonymous. Public is an aggregation of people with common interests in which an each individual interacts with other members of the group through discussions and debates to form a consensus on the opinions to represent as a group.

Social movement theory

The social movement can be defined as collective actions using a form of network by which individuals or groups interact formally or informally among members of the network, networking among members with common interest in or same beliefs on social issues such as politics or cultural conflicts.

Research methods to analyze user acceptance behaviors (TAM and ABM)

TAM is an information systems theory, developed by Davis, that models how users come to accept and use a technology and that attempts to explain by applying the theory of reasoned action (TRA) the causes of user acceptance of technology, the two technology acceptance measures- perceived ease of use and perceived usefulness.

Agent Based Model (ABM) is adopted as a key model along with the underlying concepts of TAM to support our hypotheses and simulations. ABM is a type of computational model used for simulating the actions and interactions of autonomous agents and from which results of the simulation the appearance of complex phenomena can be predicted.

Churn effect

Churn Effect is an effect on business or other customers from loss of existing clients or customers, a major factor affecting customer migration, the consequences from customer churn, also known as customer attrition, customer turnover, or customer defection.

First mover advantages

Lieberman defines the first-mover advantage as in terms of the ability of pioneering firms to earn positive economic profits (i.e. profits in excess of the cost of capital), competitive advantage that a company which first enters into a new market of a particular product or service can obtain earlier than other competitors.

III. Research Methods

Research model

This paper will generate and simulate an ABM based model with multiple agents that supposedly have impacts on the customer migration in ICT service market. Then, this research attempts to observe various interactions between providers and adopters and among adopters themselves, and explain the results from the interactions based on the social science theory. The multiple agents will be divided into two groups - providers of a service and adopters who receive such service - and the main focus of the observation will be on different types of customer churn depending on the provider's service environment.

Epstein model of a civil violence

In this Civil Violence Model, there are two categories of actors. "Agents" are members of the general population and may be actively rebellious or not. "Cops" are the forces of the central authority, who seek out and arrest actively rebellious agents. The agents will either act rebelliously or not upon the degree of political grievance toward the regime (G), which involves two highly idealized components, perceived hardship (H) and perceived legitimacy of the regime (L). By applying the similar situation of the agents in this model to one of the ICT adopters, we attempt to analyze the consequences of the interaction among the major decision factors such as a grievance toward the

current ICT skills and service, a desire to a new technology innovation, loyalty to the current provider, and the imitation effect.

IV. The Simulation Results

Scenario 1: Customer migration due to the telecommunication market condition in Korea

From the results, it is expected that KT will be able to minimize the customer attrition rate by continuously upgrading the technology and service and absorb the customers who migrated from other providers. Therefore, unless there is a corresponding competitive and innovative technology or service offered by the first mover or other followers in the market and the market competition remains steady, the number of customer migration to the follower can be substantial

Scenario 2: First Mover (SKT) Strategy

It is driven that further improving the level of technological innovation such as expanding the coverage of wifi-zone can minimize the customer migration (customer migration mean: 2.2420). Improving customer satisfaction ratio (NCSI increase) resulted in a decrease in the customer migration, but less effectively than the technological innovation strategy.

Scenario 3: Increase in Market Share of First Mover

The first mover advantages definitely can be an easy and powerful force when used in acquiring new customers or keeping them effectively. However, in the current ICT market where customers can easily access to the information about new innovative technologies and in result either form a public opinion or take a collective action leading to a customer migration, relying too much on the first mover advantage itself can be very dangerous.

Scenario 4: Networking effect change

The result shows that as the boundary gets wider, the customer migration decreases. In addition, the maximum possible value of the

customer migration becomes smaller, indicating that the large scale of customer migration is less likely to occur.

REFERENCES

- [1] P. Berger and T. Luckmann The social construction of reality: A treatise in the sociology of knowledge, Penguin Books London, 1991.
- [2] F.D. Davis "Perceived usefulness, perceived ease of use, and user acceptance of information technology," MIS Quarterly 13 (3), 1989, pp. 319-340.
- [3] B. Herbert "Collective behavior," Principles of Sociology. New York: Barnes and Noble, 1953.
- [4] M. Lonkila "Social Networks among Russian Information and Communication Technology Professionals," Post-Communist Economies 18 (1), 2006, pp. 13-31.
- [5] C. Mueller "Building social movement theory," Frontiers in social movement theory, 1992, pp. 3-25.
- [6] E. Samanidou, E. Zschischang, D. Stauffer and T. Lux "Agent-based models of financial markets," Reports on Progress in Physics 70, 2007, pp. 409.
- [7] Van den Hooff "Electronic coordination and collective action: use and effects of electronic calendaring and scheduling," Information & Management 42 (1), 2004, pp. 103-114.
- [8] T. Wang and S. Tadisina "Simulating Internet-based collaboration: A cost-benefit case study using a multi-agent model," Decision Support Systems 43 (2), 2007, pp. 645-662.
- [9] Y. Wang, D. Chiang, M. Hsu, C. Lin and I. Lin "A recommender system to avoid customer churn: A case study," Expert Systems with Applications 36 (4), 2009, pp. 8071-8075.
- [10] S. Yitzhaki "Relative deprivation and the Gini coefficient," The Quarterly Journal of Economics 93 (2), 1979, pp. 321-324.

Limn, the Threshold of Reality

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ABSTRACT

The concept of liminal was first introduced by Gennep in his book, where liminal is considered to be a threshold between two different environments or states. Previous research suggests that tourists' behaviors often differ from those in home environment. Likewise, we propose that people's behaviors while surfing virtual tourism sites are different compared to those in home environment. The transition between real world and virtual world is similar to limen as people's actions or behaviors are likely to change. In this paper, we propose how people's behaviors transform between two different environments, real world and virtual world. Conceptualized framework for the transformation is discussed with its implications.

1. INTRODUCTION

Pleasure vacation travel is one of the four main segments in the travel market [7], and has been becoming a crucial part of modern life. In today's highly digitalized era, people take advantage of the technology to realize their freedom in diverse ways. Historically, people would go travel to play, relax, visit relatives, or sometimes to escape from the routine. Now, a growing number of people start to chase these desires in virtual world. With rapid development in information and network technology, potential travelers are given the opportunity to review and assess cultural and scenic attractions by logging into virtual tourism sites provided in the internet at their home environment. This will definitely allow people more easily grasp details of their destinations, at wish, with tremendously less effort and cost.

What makes people go to virtual world? Tourism has long been an interesting research area in relation to people's motivation for going on pleasure vacation. This study analyzes why people log into and experience virtual tourism sites by borrowing the idea of limen and what their behaviors are like by referring to previous studies about travelers' actions. We first introduce the concept of limen, followed by the explanation of people's behaviors in liminoid status. We will subsequently interpret reciprocity between real world and virtual world.

2. LIMINAL AND LIMINOID

The difference between home environment and travel sites is largely explained by the concept of liminoid in tourism research field. The concept of liminal was firstly introduced by Gennep [4] in his book, the Rites of Passage. Rites of passage are special rituals that accompany transitions of life. During the ritual ceremonies, an individual change or transform his social status or identity and become a new self with a new status and identity. Gennep [4] depicts this kind of change in status or identity in three contiguous physical stages of separation, transition, and incorporation. He contends that one firstly leaves his familiar environment, secondly enters a "between" period as a threshold, and lastly wears a new self. Gennep [4] likened society to a house with people moving over thresholds from one room to another room. The Latin word for threshold is limen, hence his three phases of rites of passage are distinguished into preliminal, liminal, and postliminal, each of which represents profane world, sacred world, and new profane world. Separation rites indicate the separation from profane world, transition rites indicate individuals' experience of sacred world, and incorporation rites are the phase to prepare before entering the new profane world.

Turner [8] extended the idea of rites of passage from pre-industrial societies to post-industrial society. He argues that the "liminal" concept introduced by Gennep appears only within "relatively stable, cyclical, and repetitive systems" and post-industrial societies do not express phenomena that usually occur during traditional liminal phase.

Wagner [9] further develops Turner's work by applying his concepts of structure and *communitas* to tourism. Wagner contends that structured time does not exist or is limited in its existence during individuals' holidays. Structured time during individuals' holidays becomes unstructured or anti-structured, leaving individuals to do as they wish, when they wish.

Currie [3] contends that people enter into a liminoid phase whenever they pass the limen, and they are physically and psychologically released from their home environment defined by norms, values,

structures, roles, and rules of everyday “normal” life. Those regulations of ordinary life are ignored or abandoned in this liminoid phase and no longer apply to tourists. After the emotional and psychological mental transformations by traversing limen, people are autonomous from their home environment identity and obtain a new societal identity [6].

By applying the limen concept to tourism industry, we treat limen as the boundary between home environment in real world and virtual tourism world in internet sites. We argue that when people step over the limen, leaving their home environment and entering into virtual tourism sites, they obtain a brand new identity with a new spirit.

3. LIMINOID BEHAVIORS AND VIRTUAL EXPERIENCE

The way individuals actualize their freedom during leisure time in liminoid phase has been an interesting research field. Burch [1] developed and introduced two distinct behavioral patterns in the tourism literature: familiarity theory and compensatory theory. Burch [1] contends that individuals pursue two kinds of totally different social behaviors given the opportunity and freedom to dispose their free leisure time. People who act according to familiarity theory will seek and perform the same routines and activities as they do in their ordinary home environment after evaluating physical, emotional or financial costs, while those who act according to compensatory theory will pursue opposite activities and express unfamiliar behavioral patterns compared to their normal home environment lifestyle.

Currie [3] classifies people's behaviors in the home environment into three separate categories of work behaviors, survival behaviors and leisure behaviors, and these behaviors change to either prosaic behaviors (similar to familiarity theory) or inversionary behaviors (similar to compensatory theory) once people traverse the limen according to his LIP behaviors framework. Prosaic concept has derived from the idea that people may maintain their everyday normal routine in the tourism places. People are not interested in cultural or educational meanings of potential travel sites, and just to find a place to fulfill their emotional or psychological needs. On the other hand, Crompton [2] argues that even the most suitable and prestigious life sometimes becomes too mundane to escape from it to pursue particularly desired elements or activities that are not practical or realistic. Thus, some individuals stick to coherent behavioral patterns of their home environment, while others behave in different patterns opposite to their ordinary lifestyle during leisure time.

When people log on to virtual world, their avatars represent them and people act anonymously under a new identity. The rules, norms, regulations of real world do not apply to the virtual world and people act under the holiday spirit. They have the opportunity to enjoy similar gratification as tourists enjoy in real

travel sites. People in virtual world might enjoy the same as they are in real world by visiting dazzling places or shopping fancy clothes. We adopt Currie's [3] LIP framework to explain people's behaviors in virtual world. The real life is a structured environment while virtual world is unstructured one. When people log into virtual world from real world, they will step into unstructured environment and also experience unstructured time. Many behaviors in real life will be transformed into either prosaic or inversionary behaviors, and the limen plays a role as a threshold between the structured world and unstructured world.

4. RECIPROCITY BETWEEN REAL WORLD AND VIRTUAL WORLD

Humans live in a structured society where the rules, norms or regulations are evolved and created by ourselves through long human history. Societal structure is inevitable results of human behaviors which are expressed in a much more concrete, strict and detailed forms. Once the structure is established and applied to human behaviors, it guides and directs individuals throughout everyday life. It is clear that both human and structure are inseparable part of our society and each is shaped and affected by another, just as Giddens [5] stated “Structuration is a social process that involved the reciprocal interaction of human and structural features of organizations.”

Likewise, the relationship between real world and virtual world also appears to be the same as the relationship between human and structure. With rapid development in network and today's cutting-edge information technology, virtual world is invented, created and evolved by humans to experience a new and exciting world. Virtual world is “structured” by humans living in real world and its vital components are created and enacted based on real world phenomena.

Virtual world is formed based on people's perception, culture, or structures from real life. In other words, virtual world is the reflection and continuation of real world. On the other hand, realistic experiences from virtual world affect people's actions or behaviors in real world and consequently determine and shape the systems and structures in real world. As Gottlieb [6] indicated what people consume in the virtual world is real and they will bring the reality back to their home, the real life.

5. THE IMPACT OF VIRTUAL WORLD EXPERIENCE ON REAL WORLD

While traditional tourism is only available through travelling to certain physically existing attraction locations, it is now practicable to have both emotional and physical experience by logging into and visiting virtual tourism sites easily available and accessible in the internet. We propose that there are three potential motivations for people to get involved in virtual tourism sites.

- Escape from reality

Humans always possess the fantasy of escaping from unsatisfactory reality to experience perfect life what they've been dreaming of, and virtual world could be a practicable platform to provide the opportunity to satisfy people's fantasy.

- Relaxation

People in today's society constantly live under stress from work, family, health or other things. So the most preferred vacation for these people might be a total freedom even without any thoughts.

- Exploration and adventure

People like to have an opportunity to reevaluate and discover more about themselves in order to seek out true self. Some intend to pursue unusual activities not available during ordinary life.

We also propose that when people step into virtual tourism sites, there are three notable characteristics which are change in identity, change in mind, and change in behavior. By traversing limen, people get rid of their old identity and obtain a brand-new identity which subsequently causes people act and think according to their new identity. With new identity, people are free from real world regulations and norms and behave with much more freedom compared to when they are in real life.

Eventually, people will have to go back to real world no matter how long they stay in virtual world. Coming back to real world is a huge change in any aspect and this will have either positive or negative impact on people. Some people try to achieve what they have experienced in virtual world, as the experience during virtual world is so strong and so vivid, they couldn't resist pursuing their dreams. On the other hand, some people are confused and under tremendous stress psychologically and physically after coming back to real world. They just can't accept the reality as they are so obsessed by the freedom and happiness they experience in virtual world. The most majority of people would probably fall between these two extremes and remain "normal and calm" as they have been. These people have clear thoughts and understanding about the differences between real world and virtual world and act rationally.

6. CONCLUSIONS

This study introduces the limen concept which is the threshold between two different environments and is considered to be the invisible boundary between real world and virtual tourism sites. Previous research by Currie [3] suggests that people's behaviors classified into either prosaic behaviors or inversionary behaviors once people traverse the limen. We first summarize three reasons that people go on vacation which are escape from reality, relaxation, and exploration and

adventure. Then three major changes that occur after traversing limen are explained. Change in identity, change in mind and change in behavior clearly depict what transformations people would experience during limen status. These transformations evoke people's inner desires which are not fulfilled or not available during real world life, and people are given the opportunity to chase or achieve what they have dreamed of. Limen explains why particular actions or behaviors in virtual world occur and why some doesn't. Finally, the impact and subsequences of coming back from virtual tourism world to real world are explained and classified into three categories.

Virtual world has been becoming an inseparable part of modern society and related studies still in its early stage. More in-depth studies about human behaviors in virtual world are needed, and the influences of virtual world experience on real world should be given delicate and extensive consideration.

REFERENCES

- [15] Burch Jr, W. The social circles of leisure: Competing explanations. Journal of Leisure Research, 1969, 1(2), 125-147
- [2] Crompton, J. Motivations for pleasure vacation. Annals of Tourism Research, 1979, 6(4), 408-424
- [3] Currie, R. A pleasure-tourism behaviors framework. Annals of Tourism Research, 1997, 24(4), 884-897
- [4] Gennep, Arnold van. The rites of passage. Chicago, Illinois: University of Chicago Press, 1906
- [5] Giddens, A. The constitution of society: Outline of the theory of structuration. California: University of California press, 1984
- [6] Gottlieb, A. Americans' vacations. Annals of Tourism Research, 1982, 9(2), 165-187
- [7] Nesbit, W. R. The Art of Forecasting Domestic Air Travel: A Survey Assessment and Overview. Fourth Annual Conference Proceedings, The Travel Research Association, 1973, 285-290
- [8] Turner, V. Liminal to liminoid in play, flow and ritual. Rice University Studies, 1974, 60(3), 53-92
- [9] Wagner, U. Out of time and place--mass tourism and charter trips. Ethnos, 1977, 42(1), 38-5

The Dunbar Number is always the ideal in Collective Intelligence based on Online Network?

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ABSTRACT

This study establishes a simple Causal Map in order to understand the structure of Social Network Service(SNS). From this, the paper proposes a simulation with drawing Simulation Model and it examines whether a Dunbar Number is available for the emergence of collective intelligence based on an on-line network. Through my analytical research, it turns out both Closed SNS and Open SNS have their own Dunbar Number. However, it appears that Open SNS can expand infinitely as it has a unique property namely weak tie. This implies that it is significant for a system or policy to be developed in order to overcome the problem of Dunbar Number, whereas restricting the extension of a network by considering the Dunbar Number would have a negative impact on emergence of collective intelligence.

1. INTRODUCTION

It is perhaps a common sense that collective intelligence is embodied more effectively as more people participate in the process. It is, however, also questionable whether a group of people depends upon intelligence. There often are people who are outstanding individually, but show an extremely different performance collectively. That is, collective intelligence and collective stupidity are another matter regardless how smart each individual is. No matter how outstanding experts individually are, the group consisting of those experts may show a poor performance, and in contrast, a group of stupid people may yield a wise result.

According to Robin Dunbar, the most sociable and outgoing people can maintain a close interpersonal relation at most with 150 individuals. People tend to form a community in order to obtain a rightly mutual understanding and cooperation with others, but the stable structure of mutual understanding and cooperative relation is likely to be broken down as the number of individuals in a group exceeds 150, so that it is needed to develop effective rules, laws, and policies in order to maintain the group in which more than 150 people participate.

Numerous previous studies on Dunbar Number have supported that the Number applies to all the communities concerned. However, these studies do not provide us with a clear evidence that explains why the more users in a

representative collective intelligence Wikipedia mean the more accurate information or why Twitter maintains collective intelligence consistently even in case where more than 150 followers. Since prior researches attempted to analyzed the relation focused upon specific services rather than the structural characteristics and behavioral patterns of Social Networking Service(SNS), these have a limitation that it cannot consider the feedback resulting from the mutual impacts between relevant internal factors and structural characteristics of such services.

Thus the study draws a causal map, designs a simulation model based upon the map, and implements the simulation, which ultimately explores whether the theory of Dunbar Number is valid in creating collective intelligence based on online network, in order to examine the structure of SNS.

2. SIMULATION MODEL

Causal Loop Diagram of Closed SNS

SNS is categorized into several types according to usage motive and function, but profile-based Facebook or Myspace in the United States and Cyworld in Korea belong to closed SNS. Such closed form of networking service is used to build and maintain a friendly relation with people. In these services, it functions in a way that a person asks others to agree to connect with each other, and then the person asked determines whether to connect or not. The Causal Map in Figure 1 illustrates the structure of closed SNS.

Causal Loop Diagram of Open SNS

There are Open SNS as well as Closed SNS. Open SNS has an attribute that it maintains a number of links with weak connectivity and thus a broader intellectual base compared to Closed SNS that has a strong, complete, and closed structure. In addition, Open SNS is advantageous in that it secures the diversity and independence that prevents participants from falling into a group think, and in that self purification process is taking place in case of the inflow of misinformation through a weakly connected link, which leads to more reliable information. In this study, the author examines Twitter as a typical example of Open SNS. Twitter has a unique feature that it maintains a weak tie by following of one party compared to existing community or network

adopting a bilateral tie. Figure 2 illustrates the Causal Map that explains about the structure of Twitter.

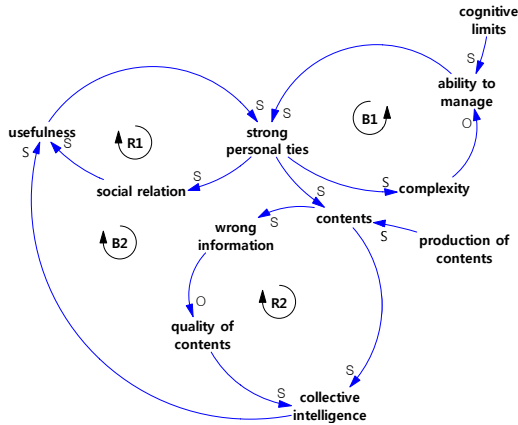


Figure 1. Causal Loop Diagram of Closed SNS

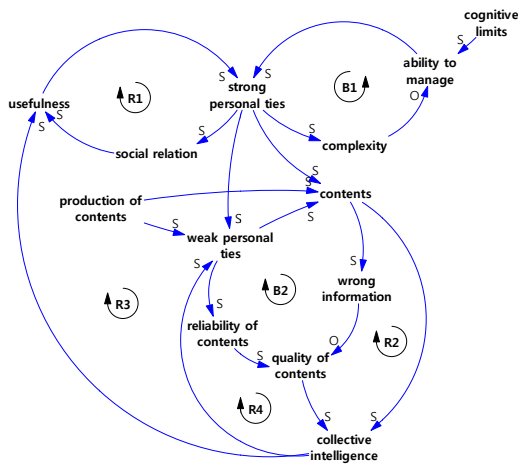


Figure 2. Causal Loop Diagram of Open SNS

Stock Flow Diagram

The author designed the Stock Flow Diagram based upon the Causal Map as in Figure 3 and Figure 4.

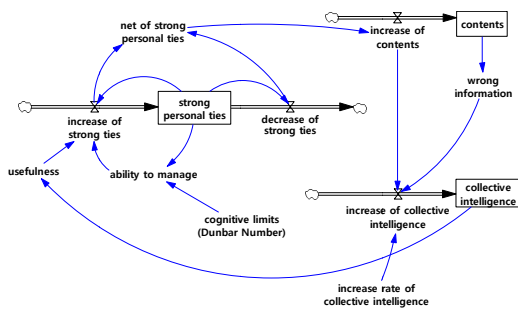


Figure 3. Stock Flow Diagram of Closed SNS

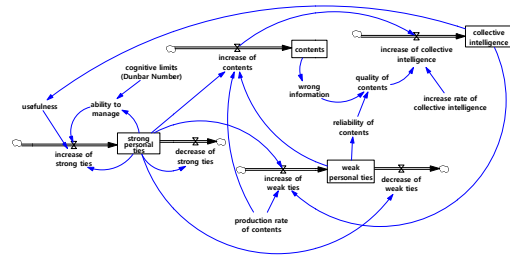


Figure 4. Stock Flow Diagram of Open SNS

3. THE RESULT OF SIMULATION

The Result of Simulation of Closed SNS

The simulation on Closed SNS illustrates the dynamic structure where a SNS user begins to make the first strong tie and the corresponding changes in the number of strong personal ties and the increasing contents, which functions to activate the collective intelligence. In this simulation, the author intentionally adjusts the values for the factors that have an impact on the structure, and examine whether Dunbar Number applies to Closed SNS and how the intentional increase in the number of strong personal ties affects the contents of collective intelligence based upon the simulation result.

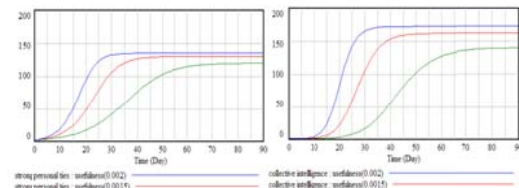


Figure 5. The Number of Strong Personal Ties and the Changes in Collective Intelligence (Closed SNS)

The author modifies the usefulness value in order to identify whether Dunbar Number applies to Closed SNS as on the left in Figure 5. The simulation reveals that the number of strong personal ties does not exceed a certain level imposed by Dunbar Number even in case where there is a change in usefulness. The changes in usefulness value have no impact on the structure of BOT. The only difference was that how rapidly it converges into a goal or threshold. This shows that Dunbar Number still applies to Closed SNS as well. That is, collective intelligence is not increased beyond a certain level due to Dunbar Number as on the right in Figure 5.

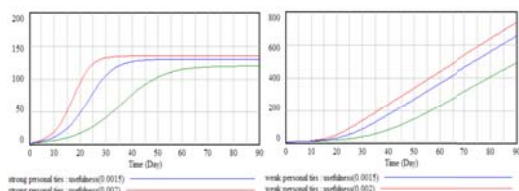


Figure 6. The Changes in the Number of Strong and Weak Personal Ties (Open SNS)

The Result of Simulation of Open SNS

The simulation on Open SNS includes the structure of Close SNS, and shows the dynamic structure of weak ties. The author tried to alter the usefulness value in order to examine whether Dunbar Number applies to Open SNS as in Closed SNS as shown on the left in Figure 6. The result shows that the number of weak personal ties increases exponentially on the right in Figure 6. The number of weak personal ties is affected by the number of strong personal ties, self produced contents, and collective intelligence in feedback. Different from the number of strong personal ties, the number of weak personal ties does not necessarily require a certain level of recognition, so that it is irrelevant to Dunbar Number and shows an exponentially increasing pattern.

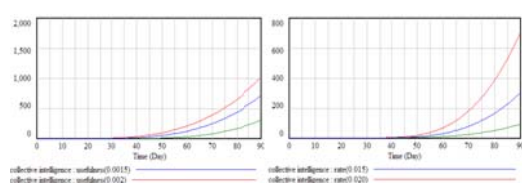


Figure 7. The Changes in Collective Intelligence Resulting from the Strengthening of Strong and Weak Ties (Open SNS)

The changes in usefulness value that has a direct impact on the strengthening of strong tie in Open SNS are insignificant in the structure of BOT as on the left in Figure 7. The only difference is the slope, in other words, the degree to which it is strengthened more exponentially. It may be more appropriate to interpret that the strengthening of strong tie leads to the increase in the number of weak personal ties rather than the expansion of collective intelligence due to the contents created by the personal tie with such strong link, and thus the weak tie increases the collective intelligence through the production and reliability enhancement of contents. As shown above, the strengthening of strong tie is limited to the value of Dunbar Number, and the scale of contents and collective intelligence generated through such strong tie was not significantly high.

The result reveals that an attempt to strengthen strong ties is meaningless due to the constraint of Dunbar Number in a system only with strong ties, whereas in a system where weak ties coexist, an attempt to strengthen strong ties is significant in a way that manifests collective intelligence. The strengthening of weak ties in Open SNS leads to the increase in contents and it consequently manifests collective intelligence as on the right in Figure 7. The increase in contents results in the increase in wrong information and thus deteriorates the quality of contents, but raises the reliability, so that it contributes to the overall increase in collective intelligence.

4. CONCLUSION

The study reveals the following results and implications. First, Dunbar Number applies to strong ties both in Closed and Open SNS. The result is equivalent to the conclusion obtained from the application of the law by Robin Dunbar to the 'friend tie building' in an online community through SNS.

Second, the presence of weak tie within a system leads to the emergence of collective intelligence through such weak tie even in case where Dunbar Number applies, so that an attempt to strengthen a weak tie is required. In case of closed system only with strong tie, its collective intelligence tends to converge into a certain level, however strong tie is strengthened. In contrast, the strengthening of strong tie leads to the strengthening of weak tie in case of a system where strong and weak ties coexist, so that the strengthening of strong tie has an indirect impact on weak tie as well as is a significant attempt to make collective intelligence emerge.

Third, the study confirms the fact that the core in the emergence of collective intelligence is on weak tie rather than strong tie. It was shown that the impact of strengthening strong tie on the increase of collective intelligence is less influential than that of weak tie. The result supports 'The strength of Weak Ties' proposed by Mark Granovetter.

The study has a scholarly implication that it attempted to adopt the perspective of structuralism, which argues that 'structure results in behavior', beyond the perspective of behavioralism, which explains that 'behavior results in behavior' in developing the theoretical system for SNS. In a study in complex system such as SNS and collective intelligence, inductive logic-based behavioralism relying on empirical data is impossible to obtain basic materials, and it is also difficult to suggest a policy alternative to ideally change the future behaviors only with apparent behaviors. However, the System Dynamics adopted in this study is an effective means to overcome the limitation and problem of behavioralism by utilizing a holon perspective that accepts both structuralism and behavioralism.

In addition, the study has a policy implication that it proposes the way in which SNS is designed and operated in order to make collective intelligence emerge. It is certainly important to create a system or policy that contributes to overcome the model of Dunbar Number, but it is not necessary to restrict the expansion of network merely in order to comply with Dunbar Number.

For collective intelligence to emerge in an effective manner, more people are required to share more diverse ideas and opinions. In short, Dunbar Number applies only to strong ties that require a certain level of recognition, and thus in case of weak tie, our network is likely to be expanded even to infinity, and in such small world of network, a genuine collective intelligence is expected to emerge.

REFERENCES

References will be provided upon request.

A Comparative Study on the Leadership and Strategies of Genghis Khan and Geon Wang Who is the Founder of Korea Kingdom

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Abstract

This study investigated the differences between Genghis Khan who was the greatest leader of Mongolia and Geon Wang who is one of great leaders of Korea. They are so brave and smart military generals but their leadership characters are much different because of their different family and growth background. Geon Wang's people respected him while Genghis Khan's people were afraid of him. Korea had over 900 wars against China, Mongolia and Japan. However, Korea has survived until now. Currently Korea is a small land country but getting stronger and richer while Mongolia is a large land country but poor and undeveloped. Mongolia people have respected Genghis Khan. Korean people have succeeded the spirit of Geon Wang's leadership. Who is the greater leader?

I. Introduction

The most important purpose of the organizations is to survive and to be prosperous forever. Korea has been a small country whose territory has only limited to Korean peninsula. Korea has been invaded more than 900 times by other countries including China, Mongolia and Japan. But Korea has survived and made brilliant 5000 years long history. After World War 2 the Korean territory was divided into South Korea and North Korea and the Korean War of 3 years from 1950 to 1953 broke most of Korean land and property. After Korean War South Korean per capita income was only about 50 dollars and Korea was the most hungry country in the world. However, now South Korea is the 10th strong country economically in the world and per capita income is over 20,000 dollars.

Korea nation's wealth has been dramatically increased and Korea is a small land but strong country both economically and militarily. Mongolia was the strongest and largest country during the 13th century and had the greatest hero, Genghis Khan who occupied the largest territory including China, Russia and most part of Europe in the world history. During the 13th century Korea had a war of 38 years against Mongolia but was not occupied (Lee, Yi-wha, 2004). Korea was the only country which did not surrender to Mongolia but ended the war after signing an unequal treaty of peace with Mongolia. And then Korea had been interfered with Mongolia for about 100 years.

Now Mongolia is the large land country which has small population of only 3.0 million people whose average annual income is about 1500 dollars. What are the differences between Mongolia and Korea? Mongolia has a large land about 15 times larger than

Korea. Mongolia population is much smaller than Korean population and Mongolia has no sea but Korea is a peninsula country. Mongolia has the greatest hero whose name is Genghis Khan but Korea has no worldwide famous hero because Korea has been a small country and not been well known to other countries except Japan and China historically. However, Korea has the great leaders such as King Sejong who created the Korean alphabet of scientific sound letters and Admiral Lee Soonshin who defeated Japanese navy fleet which had more 10 times larger troops and ships than Korean navy fleet. Admiral Lee, Soonshin has been evaluated as greater than admiral Nelson who defeated Napoleon fleet and the Japanese Navy Commander, admiral Togo, who defeated Russian fleet at 1905.

In addition Korea has a great global leader whose name is Geon Wang who founded Korea kingdom in 918 AD and opened the country to the world and traded with Arabian countries. Korea was the only country where men and women could have equal rights in most daily life during Middle ages. Korea kingdom government appointed the foreigners to be the ministry and highest military general. Korea kingdom was a real global country during the Middle ages. Geon Wang was the greatest global leader who loved the peace and not only his people but other countries' people. Korea was named after Geon and succeeded the global spirit of Emperor Geon Wang. This study examined the differences the leadership characters and organizational strategies between Genghis Khan and Geon Wang.

II. Geon Wang's Background and Leadership

2.1. Geon Wang's Growth Background

Geon Wang was born as a child whose father and grandfather were so wealthy and powerful politically in city of Kaeseong in the latter part of Shilla Kingdom era. His father and grandfather made a lot of money with overseas trading business and had not only many ships but also many private soldiers. His family name "Wang" means King and his first name "Geon" means build. Thus, his name means building Kingdom. His father and grandfather wanted him to found new Kingdom based their wealth and military and political power because Shilla Kingdom was very weakened and spoiled and didn't have the power to control people and land territory. Geon Wang had been well educated in both academic area and military area by very excellent teachers.

Geon Wang became a general when he was over twenty years because of his good family background. He was more interested in sea battles than in field

battles because he was grown by father and grandfather who were overseas trading business men. He was very open to overseas country and a magnanimous to other people even his enemy. He was very tolerant to his inferior officers' mistakes and loved them truly. He became the most able general in both sea battle and field battle but he liked to utilize his army to battle in sea and won every battle. He was really a great general and admiral. Thus, many generals wanted him to be the first King of new country. Many generals crowned him as the first King of Korea even if Shilla Kingdom was still alive as very weakened. Geon Wang had the large and strong troops to occupy Shilla Kingdom but did not invade Shilla. He helped Shilla King to survive and had an agreement with him to live together peacefully. Shilla king was moved to tears when Geon Wang proposed the peaceful agreement.

2.2. Geon Wang's Leadership

Shilla king abandoned his right to rule the kingdom and Geon Wang succeeded Shilla kingdom's crown to found the new kingdom which merged two kingdoms and the new Kingdom was named as Korea kingdom. Geon Wang became the emperor of Korea and Korea had survived for 500 years to transfer its crown to general Lee who established Choseon Kingdom. Geon Wang took over Shilla's crown and received all officers and people peacefully without killing anyone. He appointed former Shilla's officers to higher ranking officials of the new kingdom Korea. He was a peaceful and tolerant leader.

Geon Wang was a very brave general and admiral but he did not kill thoughtlessly opponents and even the generals of the enemy. He was so tolerant and loved peace. He was a very charismatic and powerful leader. He had plan to invade China to get the territory of Manchuria and north part of China to establish the large empire of Korean people. He was very open to the other countries because he had been so interested in overseas from his childhood owing to his father and grandfather's trading business. He opened Korea harbors to business men of China, Japan and western countries including India and Arabia. Thus, many foreign businessmen came to Korea to trade with Korea businessmen. As the results of opening the country, some foreigners became Korea people and some of them were appointed as high ranking officials of Korea. Thus, Geon Wang was a great global leader while Europe was very closed and in dark medieval ages at that time.

Women had almost equal rights to men in daily life in Korea. Korea was the only country which had gender equality in society of the middle ages. In some cases the new born child could take his or her mother's family name. Even the some of princes and princesses of Geon Wang took his or her mother's family name. In addition Korea was very liberal country in marriage and divorce policy. Geon Wang was a very liberal leader. Geon Wang liked study humanities, literature and arts even if he was a general because he had been well educated. Korea encouraged

and cultivated academics and arts to invent metal type first in the world history 250 years earlier than Gutenberg. Korea created the brilliant culture of literature, printing and especially celadon. Now the Korea celadon has a very highest artistic value and is evaluated the most valuable pottery in the world..

III. Genghis Khan's Background and Leadership

3.1. Genghis Khan's Background

Genghis Khan's background was much different from Geon Wang's background. Genghis Khan's father was the head of one small tribe in Mongolia. His mother was kidnapped by his father and had a child whose name was Temujin who became Genghis Khan later and then occupied the largest territory in the world history. Temujin's father had already another elder son before he had Temujin. Temujin's father was killed by another tribe and then Temujin became fugitives from the enemy tribe who killed his father. Temujin killed his elder brother when he was a teen ager. Temujin made new friends. But he killed them later to get the all ruling power. Thus, Genghis Khan killed every one if he or she was against his will and purposes.

After Temujin was over twenty five years, he killed the heads of opponent tribes and gathered all forces of Mongolian tribes and inducted as Genghis Khan. Genghis meant strong and very wide and Khan meant King. When he was over forty years in 1206, he was crowned as the Great Khan meaning the emperor of the universe by all tribes of Mongolia. He invaded China and conquered Beijing in 1215. In 1223, he invaded Russia and won Russian federate troops. He was really greater than Napoleon and Alexander the great in conquering other countries including China and Russia which were the largest and strongest countries in eastern and western world. He was the great genius in fighting against enemies and had never lost until he died.

3.2. Genghis Khan's Leadership

Genghis Khan's troops invaded the territory of other countries and killed all of people including children and old aged people if they were against Genghis Khan's purpose. Genghis Khan troops were cruel to their occupied people and Genghis Khan was not tolerant to people and soldiers who did not obey his orders. He was very strict and stern according to the laws. He did not forgive anyone who acted against laws. He had strong charisma winning in all battles because he was so brave and wizardly in fighting against enemies. He never forgave anyone who violated his rules and orders. He produced laws which were very systematic and logical. He asserted strongly that his people and soldiers had to comply with all of laws and to be punished in case of violating laws. His leadership was very stern and powerful to control over anyone.

He was also smart in decision making and planning the future empire which his descendants could run. He was sometimes tolerant to other countries culture and applied Chinese culture system

to run his empire. Mongolia created Mongolian letters adopting Uyghur letters, thus he was a great leader in making new culture system imitating and adopting other culture. He was a very able in organizing troops systemically for generals to command his soldiers effectively and efficiently so that his troops defeated European troops which were 100 times larger than them. He was a great leader in organizing the system.

IV. Comparison of Genghis Khan and Geon Wang

4.1. Leadership of Genghis Khan and Geon Wang

Both Geon Wang and Genghis Khan were generals who were very brave with charisma. However, Geon Wang was very tolerant and did not like war because he loved peace while Genghis Khan was stern and liked to fight against and kill everyone who didn't obey him. Geon Wang was a leader whom soldiers and people would respect while Genghis Khan whom soldiers and people would be afraid of. The following <table 1>. shows the leadership characters of Geon Wang and Genghis Khan. Those differences might be originated from their background of family and growth.

<table 1.>

	Geon Wang	Genghis Khan
charisma	much	much
braveness	much	much
endurance	much	much
emotion	much	little
human relation	trust	utility value
religion	Buddhism	shamanism
tolerance	much	little
empowerment	much	much
peace	much	little
global	to open	to conquer
battle	field, sea	field
culture	liberal	stern

4.2. Strategies of Geon Wang and Genghis Khan

Genghis Khan and Geon Wang were so brave generals. Genghis Khan was a wizard to command horse troops to attack enemy with high speed which even modern people can not imagine. His horse troops could fight against enemy without logistic and supplying functions. All forces of his horse troops were only attacking combat forces without supplying and logistics forces. They were the strongest and fastest horse troops in the world history. They were so cruel that they killed all of the enemy who were lost to them. Genghis Khan strategy was speed and downsizing to make his troops lighter and attack promptly without supplying function. Every soldier carried their meat foods of being dried flours and weapons. Genghis Khan's strategy was beyond imaginations of all people of the world and so great, excellent and unbelievable that over 100 times larger European troops than his troops lost to him. He died on the way to conquer other country so his whole life was to combat and to kill other people.

Geon Wang was also a great general and admiral. Genghis Khan was so talent not only in field battle but

also in sea and mountain battles. Geon Wang was so excellent in navy strategy as well as army strategy. His mind was opened to overseas and global trade. He was interested in business as well as battles. He had battles to get peace and people's lives not to conquer. He embraced powerful ruling neighbor leaders with peaceful marriage strategy. Without battles. He married 29 times to unify Korea's land which was divided into many parts by local powerful rulers(Park, Yeong-gyu, 2001). Geon Wang embraced the last Shilla's king with marrying his daughter and allowed him to rule the capital city of Shilla.whose name is now Kyeongju. In addition Geon Wang made the Shilla King's descendants higher ranking officials and prosperous. Until now Shilla King's descendants have been much more prosperous than Wang Geon's descendants and now they are one of the most successful families in Korea. Their family name is Kim originated from the name of Kim, Alji who was the 3rd king of Shilla Kingdom. The following < table 2.> shows the strategies of Geon Wang and Genghis Khan

<table 2.>

	Geon Wang	Genghis Khan
political ideology	Buddhism, Confucianism	not special
diplomacy	global, peace	conquer
industry	agriculture, trade	nomad
marriage	utilize	not
maintain power	network	his army
military	infantry, horse troops, navy	horse troops, high speed, no logistics
network	marriage	conquer
neighbor	peaceful relation	occupy, control
global	much	little
succeed	elder son	elder son
culture	creative	imitate Chinese

V. Conclusions

Until now Korea has succeeded Geon Wang's leadership spirits of loving peace and people, tolerance, endurance, adventurous spirit and global spirit. "Korea" the nation's name is originated from Korea kingdom which Geon Wang founded to recapture the whole land of Manchuria belonged to Cogurea which was the strongest and largest kingdom Korean people established. The most critical purpose of the organization is to survive and to be prosperous forever. Who is greater in global leadership, Genghis Khan or Geon Wang?

References

- [1] Lee, E-wha, History of Korea, Hangilsa Publishing Co., Ltd, Korea, 2004
 - [2] Park, Yeong-gyu, The Edited One Book of Corea Kingdom Real History, Duel Nyuk Publishing Co., Ltd, Korea, 2001
- Other references are available upon request.

Shared Leadership in Japanese R&D Teams: The Relationship with Transformational Leadership of Formal Leader and Team Performance

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ABSTRACT

This study focused on shared leadership in Japanese R&D teams. The relationship between shared leadership and transformational leadership of formal leaders as antecedent factor and the relationship between shared leadership and team performance as consequent factor were examined in a study of 698 researchers working in 126 R&D industrial research teams in Japan. Results indicated that transformational leadership had the negative impact on shared leadership through norm for maintaining consensus while it had the direct positive impact on shared leadership. It was further found that shared leadership positively influenced team performance although this effect was moderated by project team type in such a way that for research project teams, shared leadership has a stronger, positive relationship with team performance than for development project teams. Finally, these results were discussed in the context of the unique Japanese work environment.

INTRODUCTION

Leadership is one of the most important factors to affect R&D team performance. There are many previous studies that indicated leadership affected R&D team performance considerably. However, most of them showed the effective leadership of team leaders on the premise that only a single individual could influence team members and performance. Nonetheless, it is possible that team members other than team leaders affect other team members, and in some cases they may have impacts on their team leaders. Hence, the study, which focuses on shared leadership, is required in R&D settings. The leadership of a formal leader can affect shared leadership significantly. Indeed, a lot of prior studies indicated that formal leaders had the significant impacts on job attitudes of team members and team performance [e.g., 1]. In this study, transformational leadership was focused as leadership style of formal leaders because transformational leadership had been one of the leadership styles that had received considerable attention in the recent research literature and many studies had shown that it influenced job attitudes of team members, team climate, and team performance in R&D settings [e.g., 6, 9]. Meanwhile, some prior studies showed shared leadership positively influenced team performance [e.g., 4]. However, the relationship between them have

not been verified in R&D settings although it is possible that shared leadership has positive impact on team performance also in R&D settings.

This study examined the relationship between transformational leadership of formal leaders and shared leadership and the relationship between shared leadership and team performance in Japanese R&D settings.

HYPOTHESES

Transformational leadership offers attractive vision to followers and inspires them to achieve higher-level goals. Bass [2] indicated that transformational leadership inspired followers' motivation by raising followers' levels of consciousness about the importance and value of specified and idealized goals. Indeed, some previous studies showed that transformational leadership positively influenced followers' intrinsic motivation [9]. Persons, who have high intrinsic motivation to their job, want to accomplish their job goals, and want to behave voluntarily in order to contribute to their achievement. Such persons can display leadership even if they are not team leaders. In addition, Walumbwa et al. [10] indicated that transformational leadership fostered both self-efficacy and identification with their jobs. Team members, who have high self-efficacy and high identification with their jobs, want to contribute to their team performance, and want to display leadership if needed.

Hypothesis 1. Transformational leadership of formal leaders is positively related to shared leadership.

In the contrary to the above hypothesis, it is possible that transformational leadership has also negative impact on shared leadership because of Japanese culture. The influence from transformational leadership is powerful, and sometimes too powerful. In particular, its influence may be too strong in the collectivistic culture like Japan.

Japan is a collectivistic and high context culture in which group consensus is highly valued [5]. Local management practices are designed to promote this, even in the R&D divisions. Those management practices strengthen the homogeneous culture inside the Japanese companies and that culture creates norm for maintaining consensus.

It is possible that transformational leadership serves to reinforce norms of group consensus. Idealized influence, which is one dimension of transformational leadership, may have such effect. The idealized influence promotes followers' identification with their

leader, and increases followers' desire to please and imitate leaders. Under such influence, followers do not want to criticize the leaders and do not permit colleagues who criticize their leaders. In addition, transformational leadership unites followers and creates the climate, which is required for achievement of the goals, in the team [8]. It means transformational leadership may press followers not to behave against the climate that leaders want to create. Under such pressure, it is difficult for followers to behave easily and to criticize major thought of the team freely. As a result, norm for maintaining consensus will increase inside the teams.

The norm for maintaining consensus discourages the leadership displayed by team members. Under such norm, it is difficult for team members to make a decision by their judgment because that norm presses the team members to obey leaders' or major members' decision. Therefore, they feel it is difficult to behave voluntarily in the teams.

Hypothesis 2a. Transformational leadership of formal leaders is positively related to norm for maintaining consensus.

Hypothesis 2b. Norm for maintaining consensus is negatively related to shared leadership.

Shared leadership is particularly important for R&D team performance. This is because shared leadership can influence intrinsic motivation, which is one of the most important factors that affect creativity of team members. Creativity is important for R&D performance since the goal of R&D activity is creation of new knowledge that is useful for new product development. Furthermore, knowledge creation requires information that can be a base for new knowledge. Therefore, sharing of diverse information inside the teams can affect R&D team performance. In addition, the effective R&D activities need to strengthen information processing abilities as the teams by distribution of leadership among members because R&D processes are ambiguous and uncertain.

Hypothesis 3. Shared leadership is positively related to R&D team performance.

In spite of the above hypothesis, project team type may influence the effect of shared leadership on performance. The goals of the research project teams are the findings of scientific or technological seeds, while the goals of the development project teams are the development of new products by applying these scientific or technological seeds. In comparison with development teams, the process of research teams is more uncertain and more ambiguous. It means job complexity of the research teams is higher than that of the development teams. Therefore, diverse information and high information process ability are required for the research teams and high intrinsic motivation is required for each team member of the research teams. As mentioned above, shared leadership might positively influence diverse information and information processing abilities of the teams. Further it might positively affect intrinsic motivation of each team member. Accordingly, shared

leadership is stronger predictor of team performance in research teams than in development teams.

Hypothesis 4. The project team type moderates the relationship between shared leadership and R&D team performance in such a way that for research project teams, shared leadership has a stronger, positive relationship with team performance than for development project teams.

METHODS

The sample consisted of 126 teams from 8 firms engaged in manufacturing industrial parts. 126 team leaders (84.0% response rate), 696 team members (83.8% response rate) and 31 managers (100% response rate) participated in this study. Each team member was a member of only 1 team, and each team was managed by one of 31 managers. Among the leaders, 91.3% were men, 9.5% of them held a doctoral degree, and their average age was 35.9 years old. Among the team members, 79.9% were men, their average age was 29.7 years old, and their average tenure in the team was 1.9 years. Average team size was 5.5 people. 76 of 126 teams engaged in research activities and the rest of them engaged in development activities.

Excepting control variables, all measures used a 5-point response scale. Transformational leadership was measured by twenty items adapted from Bass's Multifactor Leadership Questionnaire Form 5X - Short [3]. Each team member was asked to rate his/her leader's behavior. Shared leadership was measured by using density [4]. Density is a measure of the total amount of leadership that is displayed by each team member. Each team member was asked to rate each of his/her peers on the following question: "To what degree does your team rely on this individual for leadership?" Density was calculated by totaling all team members' ratings of each other's leadership and dividing that sum by the total number of potential connections among team members. Team performance was measured by four items adapted from Keller [7], that is: technical quality, schedule performance, cost performance, and overall team performance. The managers, who are higher in rank than team leaders, were asked to rate each item. Control variables included the leader's age, possession or non-possession of a Ph.D., and his/her team size, all of which were provided by the leaders, as well as the team members' average age and tenure provided by the team members.

Transformational leadership, shared leadership, and norm for maintaining consensus were aggregated to mean values within each team, which was the unit of the analysis. To justify these aggregations, r_{wg} , ICC(1), and ICC(2) were computed. Those results demonstrated adequate interrater reliability (Transformational leadership, mean r_{wg} = 0.81, ICC(1) = 0.22, ICC(2) = 0.61; Shared leadership, mean r_{wg} = 0.76, ICC(1) = 0.31, ICC(2) = 0.72; norm for maintaining consensus, mean r_{wg} = 0.89, ICC(1) = 0.25, ICC(2) = 0.65).

RESULTS

First of all, regression analysis for norm for maintaining consensus was conducted. In this analysis, control variables, project type, and transformational leadership were entered as independent variables. The result indicated that transformational leadership was positively related to norm for maintaining consensus ($\beta = 0.26$, $p < 0.01$; $R^2 = 0.13$, $p < 0.05$). Secondly, regression analyses for shared leadership were conducted. In the first step that control variables, project type, and transformational leadership were entered as independent variables, transformational leadership was positively related to shared leadership ($\beta = 0.23$, $p < 0.01$; $R^2 = 0.17$, $p < 0.01$). In the second step that norm for maintaining consensus was added, transformational leadership was positively related ($\beta = 0.30$, $p < 0.01$) while norm for maintaining consensus was negatively related to shared leadership ($\beta = -0.30$, $p < 0.01$; $R^2 = 0.25$, $p < 0.01$). Furthermore, a standardized regression coefficient of transformational leadership in the second step increased as compared with one in the first step. These results support Hypothesis 1, 2a, and 2b.

Finally, to test Hypothesis 3 and 4, regression analyses for team performance were conducted. In the first step that control variables, project type, and shared leadership were entered as independent variables, shared leadership was positively related to team performance ($\beta = 0.35$, $p < 0.01$; $R^2 = 0.17$, $p < 0.01$). In the second step that a interaction term between project type and shared leadership was added, both shared leadership and the interaction term were positively related to team performance ($\beta = 0.39$, $p < 0.01$; $\beta = 0.26$, $p < 0.01$; $R^2 = 0.23$, $p < 0.01$). The figure, which was demonstrated according to Aiken & West (1991), showed that the pattern of the two-way interaction was as hypothesized. These results support Hypothesis 3 and 4.

DISCUSSION

The results of this study indicate that transformational leadership positively influences shared leadership while it also negatively influences shared leadership through norm for maintaining consensus. Moreover, they indicate that shared leadership positively influences team performance although the effect is moderated by project team type in such a way that for research project teams, shared leadership has a stronger, positive impact on team performance than for development project teams.

The findings of this study do not correspond with those of previous studies, as most of them indicated that transformational leadership had the positive influences regardless of the situation. In this study, on the contrary, it was verified that transformational leadership could have the negative effect on R&D teams in Japanese companies. The main reason that transformational leadership had negative effect in Japanese settings was that this style of leadership

excessively enhanced the norm that Japanese companies originally had to a considerable extent. That norm constrained the counterproposals to leaders and autonomous activities. As a result, shared leadership, which was positively related to R&D team performance, was impeded.

Meanwhile, the finding that the effect of shared leadership on team performance was moderated by project type also contributes to shared leadership research because most of prior studies had not examined the effects of moderators. It suggests that the effects of shared leadership may be moderated by job uncertainty or job ambiguity.

Nevertheless, further studies are required for examining the moderation effects of job uncertainty or job ambiguity. Likewise, additional studies are required for exploring the relationship between other leadership style and shared leadership in the future.

REFERENCES

- [16] Barling, J., Weber, T. & Kelloway, E.K. Effects of transformational leadership training on attitudinal and financial outcomes: A field experiment. *Journal of Applied Psychology*, 1996, 81(6), 827-832
- [2] Bass, B.M. *Leadership and Performance Beyond Expectation*. New York, NY: Free Press, 1985
- [3] Bass, B.M., & Avolio, B.J. *Multifactor Leadership Questionnaire (3rd. Ed.) – Form 5X – Short*. Menlo Park, CA: Mind Garden, 2004
- [4] Carson, J.B., Tesluk, P.E. & Marrone, J.A. Shared leadership in teams: An investigation of antecedent conditions and performance. *Academy of Management Journal*, 2007, 50(5), 1217-1234
- [5] Dulek, R.E., & Fielden, J.S. 1991. International communication: An executive primer. *Business Horizons*, 1991, 34(1), 20-25
- [6] Ishikawa, J. Leadership and performance in Japanese R&D teams. *Asia Pacific Business Review*, Forthcoming
- [7] Keller, R.T. Transformational leadership and the performance of research and development project groups. *Journal of Management*, 1992, 18(3), 489-501.
- [8] Liao, H., & Chuang, A. Transforming service employees and climate: A multilevel, multisource examination of transformational leadership in building long-term service relationships. *Journal of Applied Psychology*, 2007, 92(4), 1006-1019
- [9] Shin, S.J. & Zhou, J. Transformational leadership, conservation, and creativity: Evidence from Korea. *Academy of Management Journal*, 2003, 46(6), 703-714
- [10] Walumbwa, F.O., Avolio, B.J. & Zhu, W. How transformational leadership weaves its influence on individual job performance: The role of identification and efficacy beliefs. *Personnel Psychology*, 2008, 61(4), 793-825

Chinese Business Leadership Approaches: A Sociological and Philosophical Perspective

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ABSTRACT

This paper draws together the main findings, major contributions, and implications of a study of Chinese business leadership practices. It first reviews the research background and then integrates conclusions regarding the leadership approaches that were studied in this research. The key theoretical contributions of the study are summarized, with some limitations and recommendations for future research. Finally, both theoretical and practical implications are suggested.

RESEARCH BACKGROUND

Recent rapid globalization has compelled Chinese organizations to enhance their competitiveness. Leadership is critical in a time of rapid social and economic change and its important contribution is also evident in Chinese business. As with any form of social practices, leadership occurs within a context, which is a crucial consideration in enhancing our understanding of it. Leadership can be understood “as a contingent outcome of numerous contextual factors”, such as corporate culture, subordinates’ characteristics, relationships between leaders and subordinates, etc. [6, p. 761]. Leadership theories have focused on Western contexts rather than other cultural settings [12], because many Western theorists believed Western theories were universal and therefore provide “standards of inspiration for the rest of the world” [10, p. 89]. One unanticipated ramification of globalization has been increased awareness of the significant importance of knowledge about local differences in leadership. In other words, concentration on Western contexts is not adequate and sufficient to understand leadership practices in the current world that is dominated by the forces of globalization [1]. The rise of China is particularly significant in this regard.

Chinese philosophy is characterized by aesthetic order, correlative thinking, and pragmatic value-rationality contrasts with the Western logical order and linear thinking mode [2][4]. It has been argued that Chinese pragmatism judges the meaning and truth of objects and events by what they achieve in the world when acted upon, rather than applying preconceived concepts and solutions that ignore the uniqueness and particularity of each emerging circumstance; Chinese understand the world in the aesthetic way “in which a concrete, specific detail discloses itself as producing a harmony expressed as a complex of such details in relationship to one another” [2, p. 113].

Philosophizing on this ontology, Chinese culture is characterized by dynamism, harmony, paradox, correlativeness, pragmatism, relatedness, and aesthetic order, all of which contribute to the uniqueness of the Chinese world.

CONTRIBUTIONS

Paternalistic leadership, despite being widely studied as an indigenous approach with respect to its outcomes for both subordinates and organizations, lacked a sophisticated understanding of its mechanism and the dynamic relationships of its three components (authoritarian, benevolent, and moral leadership). This research contributes substantially to the integration of knowledge in this area. Contextualization essentially constitutes an additional level of theorization [9]. Apart from paternalistic leadership, other Western leadership constructs are applied to, adapted, and further developed in the Chinese context in this study. In particular, pragmatic leadership were reconstructed based on a value-rational understanding of Chinese aesthetics and pragmatism. This study identified both differences and similarities in the behavioral components of each leadership approach in the two cultural settings. The similarities lie in what could be called the generalizable aspects of human psychology and group dynamics. However, the distinctions are more important than the similarities. The distinct ontological foundation of Chinese society underlies the finding of this study that, as a whole, Chinese business leadership approaches are substantially different from Western ones. The main conclusions for each leadership approach studied in this study follow.

Paternalistic Leadership

This study established a dynamic process view to relate the three applications of power in paternalistic leadership, involving interplay and interdependence between the three components of this leadership approach, i.e. authoritarian, benevolent, and moral leadership.

Paternalism emerges from the combination of discipline with morality and benevolence [7]. In contemporary Chinese organizations, paternalistic business leaders are found to demonstrate a moderate degree of authoritarianism and a high level of benevolence, with a certain amount of moral character in their leadership practice. The paternalistic leadership model developed in this study captures the dynamic relations of power from these three

components of leadership, i.e., authoritarian, moral, and benevolent leadership [3]. Authoritarian leadership, as the expression of naked coercive power, is diluted by both moral leadership and benevolent leadership. Moral leadership helps to curb the abuse of power while benevolent leadership helps to shift the expression of power under authoritarian leadership from severe to moderate. Under such circumstances, paternalistic leadership will be seen to use both coercive and social power. However, if benevolent leadership (which favors only in-group persons) exceeds ethically acceptable behaviors, moral leadership will be impaired and authoritarian leadership will be implied. In this case, paternalistic leadership will be indirectly using coercive power from authority instead of social and cultural power. The dominant power of paternalistic leadership is thus provisional and precarious, depending on the use of power from each component of this leadership approach and the relations of power.

Charismatic Leadership

The leader's charisma, as the cornerstone of charismatic leadership, attributed by the followers' perception of the leader's extraordinary ability, is reflected in the notion of *junzi* or sage in Confucian philosophy. The case studies in this research identified both similarities with and differences between Western and Chinese charismatic leadership. Charisma in Chinese organizations, apart from its expression through 'vision and articulation' and sensitivity to both environments and members' needs (which are consistent with Western charismatic leadership theories), is more effectively constituted through leader's virtuous practice and proper behaviors rather than the unconventional behaviors and personal risks emphasized in Western literature. In the Western literature, these culturally derived ideal types are modified to serve a rather instrumental purpose, where charisma is used to describe the leadership qualities of a person who has been attributed with the power and thus the capability to lead in difficult and uncertain circumstances. These attributions may include special powers that enable the leaders to solve what seem to followers to be intractable problems, which are explicitly stated in the measurement of charismatic leadership with dimensions of unconventional behaviors and personal risks. Such powers projected onto the leader are to a degree consciously or unconsciously derived from ideal types, e.g. the Western ideal type is imbued with a supernatural aura derived from Western religious history, which is expressed as a non-rational response to a vision set up by charismatic leaders and unconditional dependency on their leadership.

Transformational Leadership

Transformational leadership has been studied extensively in the West during the past two decades, rising in popularity as a concept; however, little has been done to test its validity in Asia. Explanations of its internalized influence processes and adequate

specification of appropriate conditions for this leadership approach are even scarcer [12], blurring the essence of transformational leadership. This research clarified the effects of context on the explanatory power of the transformational leadership concept when applied to Chinese cultural practice. All of the essential transformational leadership behaviors (articulating vision, inspirational communication, intellectual stimulation, supportive leadership, and personal recognition) in the existing Western leadership theory have been witnessed to varying degrees in Chinese leaders' daily practices in this study, despite the different forms of expressions of these behaviors from the West. In Chinese business leaders' practice in this study, vision is articulated by actions rather than by inspirational and appealing speech; ongoing learning and resolutions on reflection of past experiences are encouraged rather than challenging established norms through intellectual stimulations; individual support extends beyond work domains to subordinates' life-world; and personal recognition, in terms of both contingent and long-term rewards, are provided in an indirect and private way.

Authentic Leadership

Authentic leadership, emerging as a particularly interesting leadership paradigm, is receiving increasing attention in the literature. As a relatively new construct, this leadership theory still lacks sufficient understanding of how authenticity works in the leadership process and of the validity of existing Western theory in a non-Western context. This study contributes by filling this research gap. Due to Confucian ethics emphasizing authentic morality and self-cultivation of all the virtues, Chinese business leaders in this study were found to widely display all the authentic leadership behaviors (i.e. positive psychological capital, a moral perspective, self-awareness, and self-regulation) that are conceptualized in the Western theory. However, Western understanding of authentic leadership focusing on self-authenticity falls into 'the fallacy of misplaced leadership' in which individuals are seen as being constituted by their personal qualities, thus being objectively discrete from contexts [11]. Following Hall and Ames' position that 'Confucianism is not *the* way, but is productive "way making" ' and is 'better understood as a way of organizing and ameliorating experience rather than as a potted ideology' [5, p. 125], this study, applying this Confucian perspective to social practice brings a creative and natural ethical dimension to understand authentic leadership, offering a 'process' understanding of authentic leadership practice in the Chinese context. A new authentic leadership model was generated based on research findings in this study. Shifting perspectives from seeing the individual (leader) as a discrete subject in time, to a process view in which individual identity is constituted in an ever-changing process of becoming [11], it conceives leaders not as 'being' authentic to themselves but 'becoming' authentic both to

themselves and their context in a process of continuous change.

Pragmatic Leadership

This study established a new theory of pragmatic leadership by challenging the instrumental understanding of existing pragmatic leadership in the management literature, replacing it with a new model fashioned from a synthesis of Chinese and American pragmatic philosophy. The pragmatic leadership literature, from an instrumental perspective, is established upon causal thinking that follows a linear cause–consequence sequence. It advocates a problem-focused or functional approach as being most effective, with task-related issues rather than human contexts perceived as the sole antecedents to the problem. Opposed to seeing reality as repetitive, Chinese pragmatism, sharing some commonality with American pragmatism [8], views reality as a process in which all concepts and judgments are generated to deal with every new situation. The impact of context on social development is recognized and emphasized in both Chinese and American pragmatism [8]. Correlative thinking lays the foundation for understanding the Chinese conceptual landscape. Chinese pragmatism, based on correlative thinking (which holds that in all things there is a complementary interaction between elements roaming in pairs), requires that objects, events, and interrelations be handled in full awareness of their interconnectedness within the human context. Thus, by philosophizing on Chinese pragmatism and correlative thinking, this study re-establishes and develops the concept of Chinese pragmatic leadership.

Chinese prefer to believe in the uniqueness and particularity of events and objects, holding that no situations are alike and no generalization can be made across contexts [4]. They discover the content and meaning of everyday life in a pragmatic way [2], as self-identity, knowledge, and language emerge from the process of social practices. In this sense, Chinese pragmatic leadership is established in this study and deliberated on in these three aspects: how leaders identify the ‘self’ in their leadership interactions with followers and organizational environments, in response to changing social conditions; how leaders constitute and employ their knowledge to display their leadership behaviors in a given context; and how leaders develop and apply their language style in their leadership process. The present research found that Chinese pragmatic leaders (1) submerge their individual behaviors into the context of interactive relationships and social community, yielding a human-oriented approach of showing sympathy and support on social human issues, rather than the single problem- or functional need-oriented approach in the

existing literature; (2) keep adapting the most proper leadership behaviors in given situations, through deploying nonlinear, dynamic, situational, and personalized pragmatic knowledge, thus establishing and maintaining appropriate relations with others within a community and achieving appropriate timing as the best strategy; and (3) indirectly and symbolically (rather than directly and concretely) moderate their language and rely on body language in a flexible and versatile style, located between the binaries of the absolutely positive and negative.

REFERENCES

- [17] Cheung, C., & Chan, A. C. Benefits of Hong Kong Chinese CEOs' Confucian and Daoist leadership styles. Leadership & Organization Development Journal, 2008, 29(6): 474-503
- [18] Cone, M. H., & Everett, A. M. Information asymmetry and management control issues in a Sino-French IJV in China. Euro Asia Journal of Management, 2003, 13(1): 107-122
- [19] Farh, J. L., & Cheng, B. S. A cultural analysis of paternalistic leadership in Chinese organizations. In J. Li, A. Tsui, & E. Weldon (Eds.), Management and organizations in the Chinese context. Basingstoke: Macmillan, 2000
- [20] Hall, D., & Ames, R. T. Thinking through Confucius. Albany, NY: State University of New York Press, 1987
- [21] Hall, D., & Ames, R. T. A pragmatist understanding of Confucian democracy. In D. A. Bell, & H. Chaibong (Eds.), Confucianism for the modern world: 124-160. Cambridge, UK: Cambridge University Press, 2003
- [22] Knights, D., & Willmott, H. Conceptualizing leadership processes: A study of senior managers in a financial services company. Journal of Management Studies, 1992, 29(6): 761-782
- [23] Redding, S. G. The spirit of Chinese capitalism. Berlin: Walter de Gruyter, 1993
- [24] Sim, M. Dewey and Confucius: On moral education. Journal of Chinese Philosophy, 2009, 36(1): 85-105
- [25] Tsui, A. S. From homogenization to pluralism: International management research in the Academy and beyond. Academy of Management Journal, 2007, 50(6): 1353-1364
- [26] Tu, W. The Rise of industrial East Asia: The role of Confucian values. The Copenhagen Journal of Asian Studies, 2008, 4(1): 81-96
- [27] Wood, M. The fallacy of misplaced leadership. Journal of Management Studies, 2005, 42(6): 1101-1121
- [28] Yukl, G. Leadership in organizations (5th ed.). Englewood Cliffs, NJ: Prentice Hall, 2002

Study on the Relationships between Service Business Owners' Religion and Their Entrepreneurial Orientation

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ABSTRACT

The Purpose of this study is to identify the relationships between service business owners' religion and their entrepreneurial orientation (EO). For this purpose, we measured the owners' faith and their level of EO in terms of autonomy, innovativeness, risk taking, proactiveness, and competitive aggressiveness. The results of MANCOVA test show that entrepreneurs' religion has significant effect on the level of EO when the five EO dimensions are considered as a single factor. This result implies that religion has strong influence on entrepreneurs' business activities.

INTRODUCTION

Entrepreneurship can be measured either by the internal psychological trait of individual entrepreneurs or the behaviors related to performing entrepreneurial activities (Lee & Peterson 2000). Religion has strong impact on the internal psychological trait of individual, and the internal psychological trait influences the behaviors related to performing entrepreneurial activities. Thus, it would be meaningful to investigate the impact of individuals' religion on their entrepreneurial orientation. The Purpose of this study is to identify the relationships between service business owners' religion and their entrepreneurial orientation. For this purpose, we classified restaurant owners into religion and no religion group and measured their level of EO in terms of autonomy, innovativeness, risk taking, proactiveness, and competitive aggressiveness to see the impact of religion on the entrepreneurial orientation (EO).

LITERATURE REVIEW

Entrepreneurial Orientation

Miller (1983) characterized an entrepreneurial firm as "one that engages in product-market innovation, undertakes somewhat risky ventures, and is first to come up with 'proactive' innovations, beating competitors to the punch" (p. 771). He used the dimensions of innovation, proactiveness, and risk-taking to measure entrepreneurship. These three dimensions have been adopted by most previous studies to define entrepreneurship (Lumpkin & Dess 1996; Covin & Slevin 1989; Lee & Peterson 2000; Kreiser et al. 2002; Tarabishy et al. 2005). Lumpkin and Dess (1996) described EO as the process, practice, and decision making activity that leads to new entry. EO can be characterized as entrepreneurial

processes that managers use to act entrepreneurially, whereas entrepreneurship can be defined as new entry. They delineated five dimensions of EO including autonomy, innovativeness, risk taking, proactiveness, and competitive aggressiveness, which underlie nearly all entrepreneurial processes. This study adopted these five dimensions to measure EO.

Gender and Entrepreneurship

Past research reveals both similarities among and differences between male and female entrepreneurs. Female entrepreneurs are similar to their male counterparts when citing need to achieve and independence as reasons on becoming an entrepreneur (Cook, 1982; Schwartz, 1976) as well as economic necessity (Hisrich, Brush, Good, & De Souza, 1996). Fagenson (1993) found that both males and females value self-respect, freedom, a sense of accomplishment, and an exciting life. Cooper and Artz (1995) discovered both males and females held initial optimistic expectations regarding their ventures. Sexton and Bowman-Upton (1990) found that both groups were low in their need for conformity with others, need for "succorance" (seeking advice or sympathy), and need for avoiding harm.

On the other hand, several studies contend there are differences between male and female entrepreneurs. The National Foundation for Women Business Owners found women define success very differently from men. Women see success as having control over their own destinies, building ongoing relationships with clients, and doing something fulfilling, while males define success in terms of achieving goals (Romano, 1994). Envick and Langford (1998) found that female entrepreneurs engage in controlling, internal communication, human resource management, and work-related task behaviors significantly more often than male entrepreneurs. Smith et al. (1992) found that female entrepreneurs employ more females than male entrepreneurs in male-dominated industries and select females with whom they share similar attitudes. A longitudinal study conducted by Gatewood, Shaver, and Gartner (1994) found female entrepreneurs have higher internal attributions for starting their ventures than males. However, Brandstatter (1997) found that male entrepreneurs made internal attributions regarding either failure or success of a venture and were significantly less likely than women to make external attributions (e.g., the prevailing economy) for either failure or success. Sexton and Bowman-Upton (1990) found that male entrepreneurs had higher sustainable energy levels and were more risk-taking than females.

Religion and EO

Entrepreneurship can be measured either by the internal psychological trait of individual entrepreneurs or the behaviors related to performing entrepreneurial activities (Lee & Peterson 2000). Religion has strong impact on the internal psychological trait of individual, and the internal psychological trait influences the behaviors related to performing entrepreneurial activities. Thus, it would be meaningful to investigate the impact of individuals' religion on their entrepreneurial orientation.

However, only few studies have been conducted on this issue. Dodd and Seaman (1998) studied the relationship between individual's religion and entrepreneurship. They hypothesized individual faith influences entrepreneurship and growth of business, and tested it by collecting data from British entrepreneurs. However, no significant difference between religious group and no religion group was identified in terms of entrepreneurship and performance. They explained the results by focusing on the fact that the level of faith of religious group was not deep enough to make a difference in their psychological trait and entrepreneurial behavior.

On the other hand, Peale (1952, 1986, & 1989) and Schuller (1993) insisted that faith makes individuals more successful by making them act more positively in all circumstances. Their study introduced many examples that imply Christian faith can have very positive impact on entrepreneurs' mindset. Schuller (1993)'s idea can be summarized as the following figure.

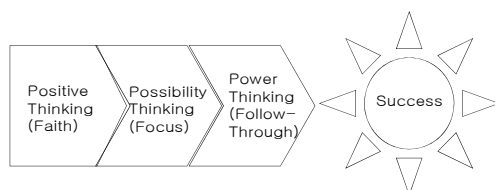


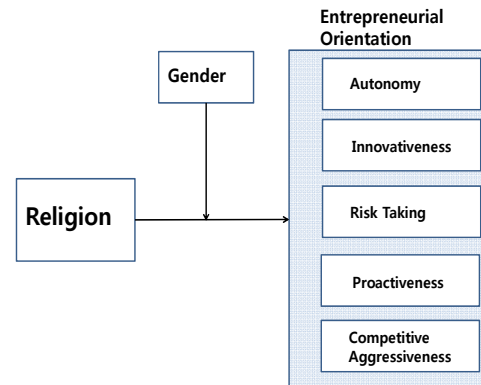
Figure 1. Schuller's Model)

RESEARCH DESIGN AND METHODOLOGY

Research Model

As shown <Figure 2>, this study empirically tests the impact of religion on multi-dimensional EO of the owners of restaurant business. Since we were trying to test the impact of religion on the five EO dimensions considered as a single group when the impact of gender is controlled, multivariate analysis of covariance (MANCOVA) analysis was selected for the analysis. For the independent variable, based on the religion of respondent (Christian and no religion), we separated the sample group into two groups: religion and no religion group. The gender of the

responding owners of the restaurant business was used as a control variable to control the impact of gender on the respondents' EO. The five dimensions of EO were used as dependent variables: autonomy, innovativeness, risk taking, proactiveness, and competitive aggressiveness.



<Figure 2> Research Model

Research Variable

Entrepreneurial Orientation

We adopted Lumpkin and Dess' (1996) definition of EO dimensions as follows.

- (1) Autonomy: The independent action of an individual or a team in bringing forth an idea or a vision and carrying it through to completion.
- (2) Innovativeness: A firm's tendency to engage in, and support new ideas, novelty, experimentation, and creative process which may result in new products, services, or technological processes.
- (3) Risk Taking: The willingness to incur heavy debt or making large resource commitments by seizing opportunities in the market place in the interest of high returns.
- (4) Proactiveness: Taking initiatives by anticipating and pursuing new opportunities and by participating in emerging markets.
- (5) Competitive Aggressiveness: A firm's propensity to directly and intensely challenge its competitors to achieve entry or improve position to outperform industry rivals in the marketplace.

According to the definitions of each EO dimension, fifteen items were used to measure five dimensions of EO

Gender

Respondents' gender was used as control variable.

Religion

Respondents' religion was used as independent variable.

Sample Group

According to the purpose of this study, data were collected from a total of 350 owners of restaurant business as a sample group. Among them, only questionnaires which were collected either from Christian or those without religion were used for data analysis. Data collected from people with other religion than Christian religion were excluded to control different type of influence on EO from different religion. Thus only 106 questionnaires were used for the study. Thus, respondents are separated into two groups (Christian and no religion group).

RESULT OF DATA ANALYSIS

Result of Reliability Analysis

Cronbach's alpha value was needed to measure internal consistency reliability which gave the degree of relatedness of the individual items. A desirable value of Cronbach's alpha is 0.7 (Nunally, 1978). The result of the reliability test for the questions used for measuring EO related constructs showed the following: autonomy (3 items) $\alpha = .729$; innovativeness (3 items), $\alpha = .705$; risk taking (3 items), $\alpha = .723$; proactiveness (3 items), $\alpha = .845$; Competitive aggressiveness (3 items), $\alpha = .728$. The high alpha values are explained with the fact that all items are developed according to the constructs which were defined by Lumpkin and Dess (1996). Therefore, we skipped the confirmatory factor analysis.

Result of MANCOVA Test

As shown in <Table 1>, all relevant values including Pillai's Trace, Wilks' Lambda, Hotelling's Trace, and Roy's Largest Root are significant at the level of .10..

Effect		F	Sig.
Gender	Pillai's Trace	3.844	.004***
	Wilks' Lambda	3.844	.004***
	Hotelling's Trace	3.844	.004***
	Roy's Largest Root	3.844	.004***
Religion	Pillai's Trace	2.535	.036**
	Wilks' Lambda	2.535	.036**
	Hotelling's Trace	2.535	.036**
	Roy's Largest Root	2.535	.036**

<Table 1> Result of MANCOVA

The results show that there is a significant difference between the religion and non religion group in terms of the five dimensions of EO when the impact of gender is controlled. This result suggests there is a significant effect of religion on the five dimensions of EO when they are considered as a single factor at α

level of 0.05. The results also show strong impact of gender as it has been proven in many previous studies.

Result of Between Subject Effects

To measure the effect of religion on each of the five dimensions in dependent variables, the between subject effects were conducted. First, as presented in <Table 2>, results show that, overall, religion more influences autonomy, risk taking, and proactiveness dimensions of EO.

Source	Dependent Variable	F	Sig.
Gender	Autonomy	8.040	.006***
	Innovativeness	5.528	.021**
	Risk Taking	14.245	.000***
	Proactiveness	10.271	.002***
	Competitive Aggressiveness	3.247	.075*
Religion	Autonomy	7.961	.006***
	Innovativeness	2.220	.140
	Risk Taking	7.842	.008***
	Proactiveness	2.829	.097*
	Competitive Aggressiveness	2.054	.156

<Table 2> Between-Subjects Effects

DISCUSSION AND CONCLUSION

The results of MANCOVA analysis showed that religion has a significant impact on the five dimensions of EO when they are considered as a single factor. The result suggests that the religion group has higher EO. This result implies religion strongly influences the internal psychological trait of individual entrepreneurs which influences behaviors related to performing entrepreneurial activities. The results also show religion group has significantly higher level of EO than no religion group in terms of autonomy, risk taking, proactiveness. Although no significant influence was identified in terms of innovativeness and competitive aggressiveness, religion group still showed higher level of innovativeness and competitive aggressiveness than no religion group. These results strongly suggest that faith on the religion make individual conduct more entrepreneurial behaviors which could positively influence the success of the business.

REFERENCES AVAILABLE UPON REQUEST

An Analysis of Small-Medium Retailers' Vulnerable Factors in Competition with SSM

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ABSTRACT

Small-to-medium retailers in local neighborhood have been managing to survive without outside influence. However rapid change in business environment including consumer needs for goods and the quality of life has brought turbulence into retail business. Petty retailers are facing a crisis as large-sized discount stores owned by big enterprises are entering into traditional markets. To protect small-to-medium retailers from such threats and revive the traditional commercial markets the government is taking on the policy of subsidizing small-to-medium businesses. However, recent emergence of SSM (an industrialized supermarket in forms of direct management and affiliation) in local commercial areas has brought about conflicts and frictions between large companies and local merchants. Under this background this study attempted to make an analysis of vulnerable factors of small-to-medium retailers coping with SSM and probe for the alternatives to SSM business restructuring.

The Study about Factors Which Influence to the Franchisor's Profit Structure with Running Royalty Policy for its Sustainable Growth-Focused on Food Industry in Korea

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Abstract

The purpose of this paper is to assess the conceptual relationship between the running loyalty programs and performance of a franchisee or franchisor. Thus, this paper would analyze the correlation of financial stability when the franchisor strengthens the running royalty policy at the aspect of franchisor.

Although the franchise industry grows in Korea, the stability of business is still in doubt because business cycle of franchisor is shortened. This paper would find out the reason why the franchisors have the unstable status in Korea. The main reason was the instability of profit structures for franchisor which would burdens the franchisees that worsen the franchisors financial status. The biggest different from the US franchise industry was the running royalty program. So, this paper would apply the running royalty program politically into the franchise business in Korea and find out how it would reflect to the overall business cycle

By analyzing with Casual Loop diagram, this paper could find the how the each factors interact and bring out the positive feedback process to the franchisees. And also it suggested that the ways to adopt the running royalty program into the Korean markets.

Key Words: Running Loyalty, Franchise system, Food Industry, Causal Loop Diagram.

1. Introduction

Franchise is one of the typical types of business in the IP (intellectual property) industry which is the fastest-growing business format globally if compared with other industries (Kim & Yoon, 2005). Although there is a severe economic depression globally including Korea, the Franchise business excluded from global recession. According to the data from the IFA (international Franchise Associate, 2008), Franchise industry has been grown more than 5% during last 5 years, the Korean market was grown even more, 10%. Analyzed data from the KFTC(Korean Fair Trade Commission), the average period of business as a franchisor was only 5.7 years. In details, 77% of franchisors were only been running their business less than 3 years, more than 5 years is only 21%, only 4% (less than 30 franchisors) were survived for more than 10 years. Especially the food service takes about 62% among those franchisors which registered in KFTC; however only 3 franchisors operated more than 1,000 franchisees, more than 70% operated less than 100 franchisees which could mean unstable of business as

franchisors (KFTC, 2009). The financial stability would drive for the company to invest on their infra systems. The fundamental profit structure of franchise business consisted with three factor that first is franchisee setting fees including initial royalty for allow franchisee to use their trademark, sign with initial training fees and some are include the interior design fees. These fees are the just one time profits from the franchisees. The second factor is the profits from providing the raw material or WIP (work in process). Final factor is the running royalty that is for the sustainable supports from the franchisors by providing the TV promotions, hiring supervisors to support franchisees. The running royalty is the ways for franchisors to have the sustainable profits while they are running the business so that the franchisor could have the financial stability for their sustainable business. However, 99% of food service franchisors in Korea would not require the running royalty due to the unusual cultural barriers in Korea;

The profit structure of franchisors in Korea has no continues revenue like the running royalty. Throughout this study, it would find out how the running royalty would influence to the franchisor's performance and then how this performance would affect to the franchisees' profits. It would also suggest the strategy that could be settled the running royalty policy in Korea with providing the evidence of effects by analyzing with casual loop diagram (CLD).

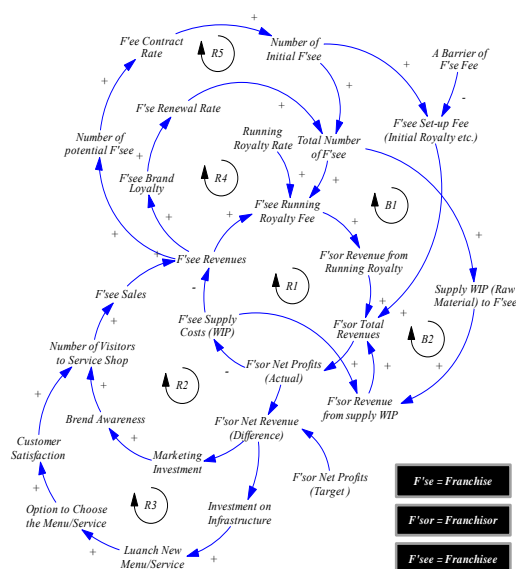
2. Profit structure of franchise

The franchisors get their profits from the franchisees by providing the business infrastructures, knowhow and supervising.

Revenue structure for the franchisor basically consisted of four factors such as the franchise fees or initial royalty, raw material profits (WIP), Business setup fees and running royalty. When the franchisee candidates start the business, franchisor designated the franchise fees or initial royalty. However the report from the ministry of knowledge economy in Korea, there are only less than 20% of food service franchisor has the policy of the running royalty in Korea, but actual collection rate is lower than 20% due to the lack of understanding about running royalty.

3. Causal Loop Diagram of creating franchise revenue through the business activities with the running royalty policy

If running royalty policy settled in Korean foodservice franchise industry, the expected cause and effect relationship by the each factor are as followed.



<Figure 3> Causal Loop Diagram with Running Royalty policy for the business activities

The CLD consisted the all the factors which contribute the franchisors revenue and profits. By link the each factors, it forms the causality loop. If each factors affect negatively that calls the “Balance”, if each effect positively that calls the “reinforcement”. The first loop of R1 indicates the reinforcement loop which starts with collecting a running royalty from the franchisees. If franchisees pay their running royalty to the franchisors, the franchisor will increase their revenue from the running royalty which affect to the company’s net profits positively. If the franchisors have increased the net profits, they would have more willingness to supply the raw material (WIP) with the lowering cost, then it would influence to franchisee’s net profits directly, if the franchisees make more money, that also means, the franchisee pay more of running royalty to the franchisors [R1]. If the net profits of franchisor is increased and have the surplus profits, then the franchisor would invest on marketing activities, that would increase the brand awareness from the final customer that encourage them to visits the store more often. Increased numbers of the customer directly influence to the franchisees sales with the increase the revenue. If the franchisees increased their revenue that means, the franchisor have chance to get more running royalty, which would be affected to franchisors revenue. That forms another reinforcement loop [R2]. The surplus profits also induce the franchisor to invest their capitals to business infrastructure like R&D, and then the franchisor would launch the new menus and introduce the new services which could provide the more options to the final customer. These activities would satisfy the customer and creating the more customers for visiting the franchisees’ store which the franchisees make more of profits which connected to the running royalty [R3]. If the franchisees increase their profits from the franchisors business activities, then the franchisee’s brand loyalty would

be increased which would be directly related to contract renewal rate. As franchisors, more number of franchisees could bring the more profits by pay the running royalty [R4]. If franchisees performance is outstanding by the franchisors business activities, there would create the potential franchisee candidates by word of mouth, securing more of candidates means, the franchisors have the more chance to close the contracts. Then the franchisor would receive the business set-up fees including the initial royalty [B1], and also the profits from the running royalty would also increase due to the number of franchisees are increased as well [R5]. If the total numbers of franchisees increase, the franchisor would have the negotiation power with the suppliers due to the volume of the materials. That mean, the franchisor would have the more of net profits along with increased revenue by supply the WIP (raw material) [B2]. Adapting the running royalty policy would influence franchisors financial stability by positively effect to the overall business activities as the CLD explains. It also would help for franchisors’ sustainable management which is directly related for the franchisees’ performance.

5. Conclusion

To settle the Korean franchise industry as the steady state, the franchisor should have the sustainable growth with the distinguished system and knowhow. The running royalty is the essential for franchisors to be sustainable. If the franchisors don’t have the sustainable profit structure, the franchisor would supply the raw material at the excessive costs. The reliabilities between franchisors and franchisees would be disappeared. To cover up the profits, the franchisors would put the unreasonable price for the set up fees for franchisees which would be lowered the contract rate. However it is not easy to settle the running royalty policy in Korea. Since the franchise industry takes a lot of potions of Korean economy, the government should be set the strict law and regulation because the people wouldn’t be moved if the regulation issued by the franchisors. The government should strengthen the control function for franchise business activities by setting the entrance regulation as the player. The only proved and competitive franchisor would play within the industry if the strengthen the regulation. As result, the franchisor could require the running royalty to the franchisees for minimizing the business risk.

Reference

- Charles L. Vaughn (1979), *Franchising: It’s Nature, Scope, Advantages and Development*, Lexington, Massachusetts, Toronto D.C., Health and Co., pp. 1-2
- Choi, P. H. (2003), “Empirical study about initial royalty and decisive factor of running royalty”, *Business School at Guang Woon university*, Korea, Master Thesis.
- Conner, K. R.(1991), “A historical comparison of resource-based theory and five schools of thought within industrial organizational economics”, *Journal of management*,17(?),pp.121-154.
- Daniel, I. E. and Bernard, L. L. (1994). “Customer Service: the Key to Customer Satisfaction. Customer

- Loyalty, and Market Share, "Journal of Business Logistics, 15(1), pp. 1-27
- Kim, Y. J. (2006), "The Research about the factor for franchisee' success in food service", *Business school at Kyung Sung University*, Korea , Doctorate Thesis.
- Knight, R. M.(1986), "Franchising from the franchisor and franchisee points of view," *Journal of small Business Management*, 32 (July), pp. 8-15
- Shane, S. A. & Foo, M.(1999) "New firm survival; institutional explanations for new franchisor morality, *management science*, 45(Feb.), 142-154
- Shine, Y. R. (2000) "The Study regard to the licensing of sports asset- focused on Intellectual property", *Sports business school at Kookmin University*, Korea, Master Thesis.
- Yoon, J. H and Lee, J. H. (2005), "The cost structure strategy for increase the competitiveness of franchise business especially in food service industry", *Food Service management Society*. Vol. 7, No. 2, pp. 83~99
- U. S. Department of Commerce, U. S. Industrial out Look(1988), Franchising, International trade Administration, pp.62-1, 62-2
- Korean Fair Trade Commission (2010),"Franchisors' history disclosure statement 2009"
<http://franchise.ftc.go.kr/fir/manage/searchFirList.do?method=getSearchList>
- Korean Fair Trade Commission (2008),"Franchisors' history disclosure statement 2007"
<http://franchise.ftc.go.kr/fir/manage/searchFirList.do?method=getSearchList>

A Comparative Study of Management Characters in the Franchise Coffee Shops and the Private Owner Coffee Shops in Korea

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Abstract

The main purpose of this study is to know what type of business type is much better on espresso coffee shop in South-Korea. We want to find what the major strong factors of franchised coffee shop and non-franchised coffee shop. The results of this study show that there are many differences between them in the management factors.

The result of this study shows that the owners of franchised coffee shops satisfied to their business mostly. Easy to develop of menu variation, brand awareness and franchisor's management guidance are very important elements of franchisee's satisfaction. The results also illustrate that the owners of non-franchised coffee shops satisfied to their business flexibility.

I. Introduction

The coffee shop market in South-Korea, which has been dominated by the foreign espresso coffee companies like Starbucks and Coffee bean & Tea leaf, has grown remarkably large over the past few years. Many own brand of coffee shops were also developed.

	Annual consumption 1 person	Annual coffee imports (ton)	Type of coffee	
			espresso	instant
USA	600cup	1,300,000	92%	8%
Japan	470cup	430,000	40%	60%
Korea	300cup	100,000	5%	95%

As the above table shown, consumption of espresso is very low level. It means that Korea has potential of espresso coffee business.

The domestic brand was not much considering in 2-3 years ago, but the current position is sharply rising on the domestic brands. Until now, many people drink instant coffee, but increasingly by drinking lots of coffee were turning direction. The table below shows the consumption of coffee consumption has shown good growth.

	1980'	2002'
Instant coffee	100%	131%
espresso	100%	237%

People have a socializing in the coffee shop, and take a fall in the sweet contemplation. Because of that, the coffee shop try to provide the overall convenience like human communication, relaxation, coffee itself, and psychological and cultural.

Reason to set a higher price of the coffee shop is here. Higher price includes a premium of psychological benefit.

Expensive Policy on the coffee shops brings out the voices of criticism, but the choice of consumers seems to be accepting.

Because of recession, restaurant companies, among them to set prices above the average of the high level of food service companies have been struggling, but coffee shops is relatively well in the market.

The coffee shop franchise is providing a space Comfortable to talk; the growth of coffee shop has been based on the 20-30 women's steady support.

II. Espresso coffee shop

According to the researches related to the introduction of the coffee shop, since 1890 Korean started drinking and being introduced the coffee as a drink. The hotel coffee shop has been started selling a coffee in

Incheon area in 1888, that was the pioneer of South-Korea coffee industry (Kang, junman·Oh,dujin, 2005). After the Seoul Olympic Games in 1988, it was the turning point of coffee culture in South Korea. Many people experienced the difference types of coffee taste around the world because free travel has allowed for Korean since in 1988. The increase in national income and improve quality of life, the coffee was a trend.

First Starbucks Shop, 100 seats open in Shinchon July 1999 in Korea. After Starbucks, the espresso spread rapidly and coffee culture in the form of take-out was settled quickly in Korea. Sooner or later, Holly's, Angel in us, Eydia which are the domestic espresso coffee brands as well known as Starbucks.

Brand	Store			Revenue (USD)		
	2006 ,	2007 ,	2008 ,	2006' ,	2007' ,	2008' ,
Starbucks	188	233	282	76.580.00 0	95.340.00 0	112.000.00 0
Hollys	89	130	183	17.500.00 0	31.500.00 0	49.970.000
Angeliners	37	91	148	12.040.00 0	23.100.00 0	45.500.000

III. Franchised coffee shop

Coffee shop franchises' market share in the domestic coffee industry is approximately 20%, which is smaller than in Europe and Japan, it is still expected to growth significantly (food and beverage daily, 2008). Because of the growth possible, competition in the coffee shop will be stronger.

They should survive in the market and continued growth, it is the right time to make a short-term & long-term strategy.

They must not only satisfy the customers in the price and quality competition, but also they should make the revisiting customers.

Generally, the majority of franchise coffee shop is large.

Starbucks, coffee bean and tea leaf, Holy's, and Engel-in-us are the most famous franchised coffee brand in Korea.

One of the advantages of franchised coffee shops is a lot of their brand name is known around the country.

Because of menu development is done in headquarter, the manager's duty is reduced a lot of work to do.

Moreover, because buying in bulk from the company, purchase price-competitive is significantly higher.

On the other hand if the non-franchised coffee shop's owner purchases, due to the purchasing work the management concentration may fall.

Therefore, bulk purchases from headquarter will reduce their branches daily routine work.

Then the exterior, interior, and signage are unity also, because there is a professional designer in headquarter, the installation of interior, exterior, and signage is more mature. It is going to be a big advantage, too.

And another advantage is the recognition from customers is quite high. Finally, publicity and advertising by franchisor can reduce the franchisee's marketing work.

IV. Private owner (non-franchised) coffee shop

Private owner coffee shops are shown a lot even small town these days. That means coffee business is very active in Korea. The reason why does not the coffee shop franchise, private owners want to save the individual personalities and characteristics of the coffee business method. The case of the non-franchised coffee shops, they roast coffee directly, and provide individually distinctive flavor of coffee. And also they import the coffee bean as well. by their number of beans to. Thus, the personality of their coffee is still alive.

And also, the unique tastes of coffee make royal customers who have become accustomed to the coffee. These coffee shops have several advantages of their business.

First, they can be free to raise prices or cut, because they are the owner of business.

And the configuration of the menu according to customers' responses can be determined quickly.

Responsiveness to customer needs is a very important thing such as coffee shops and beverage services.

And because the owner decided to purchase, the owner manages the quality control and cost control.

On the other hand, disadvantage of the non-franchised coffee shops is relatively low brand awareness from customers.

Another disadvantage is high cost and effort for menu development, because the owner should do that solely. So it can cause the increased the cost and time.

Inefficiencies of work due to the purchasing are also disadvantages.

Such as advertising and public relations activities can need the owners time and cost.

v. Preference of Korean Customers

Past 10 years, the growth of the coffee shop when a driving force in expanding coffee market is definitely a franchised coffee shop.

Start the Starbucks and Holly's, many franchise coffee shops were born.

Currently the highest number of coffee shops in the industry, even if Café Benne the best use of franchise systems and over 500 stores were operating.

The success of this franchise has led to the expansion of small-scale coffee shops coffee shop which has strong individuality.

However, most guests prefer coffee shop cafe is preferred in the form of a franchise. There are several reasons.

First, people prefer the well known brand name.

Second, because of the high-quality management, wherever you can drink a coffee on the same specifications and quality also. And the menu is diverse and able to offer a wide choice.

Third, a good interior and exterior gather the customers.

Coffee shop is not only drink place but also more than the ability to perform in office, so the franchise coffee shop needs a good grasp of these consumers in the stores and the coffee shop was reflected well.

Fourth, as the discount compared to the private owners coffee shop, franchised coffee shops can offer relatively low price range of good quality coffee can be enjoyed.

Finally, the location of a franchised coffee shop is excellent access and visibility. Because of that, the guests can easily be used, is a good place as a meeting place.

[9] Reichheld, F. F. and Sasser, W. E.(1990), "Zero defections: quality comes to services," *Harv Bus Rev*, 68(5), 105-110.

[10] Zeithmal, V. A.(1988). "Consumer perception of price, quality, and value: A means-end model and synthesis of evidence," *Journal of Marketing*, July, 2-22

References

[1] Food Service Economy (2009),
<http://www.foodbank.co.kr>

[2] Gangjunman, ohdujin (2005), "Gojong go to Starbucks," People and history of thought.

[3] Jung Hong Sik (1995), the world of coffee, Minmunsa,

[4] Young Han Kim, imhuijeong (2003), Starbucks, emotional marketing, Nexus Books,

[5] Food & Beverage News (2008),
<http://www.thinkfood.co.kr>

[6] Munjunung (2007), Seoul Café show, Mujeti Coffee.

[7] Dodds, W. B., and Monroe, K. B.(1985), "The effect of brand and price information on subjective product evaluation," *Advances in Consumer Research*, 12(1), 85-90.

Engel, J. R.(1982), Consumer behavior, The Dryden Press, 120.

[8] Mazursky, D., LaBarbera, P., and Aiello, A.(1987), "When satisfied consumers switch brands," *Psychology and Marketing*, 4, 17-30.

Oliver, R. L. and Swan, J. E.(1989), "Consumer perceptions of interpersonal equity and satisfaction in transactions: a field survey approach," *Journal of Marketing*, 53, 21-35.

Boeing, Airbus and the WTO: A Case Study of the World's Biggest International Trade Dispute

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ABSTRACT

One of the most high-profile current international trade disputes concerns two of the world's biggest aircraft manufacturers, Airbus and Boeing, and their respective governments. This dispute over illegal subsidies has dragged on for more than four decades and has been described as the biggest commercial dispute between the United States and the European Community. The Boeing/Airbus case not only reflects a battle for market share in a duopoly market structure, but also highlights a clash of ideologies over the appropriateness of state intervention in high value exports and one of the most difficult cases for the World Trade Organisation (WTO) to resolve. The differences in political ideology, coupled with the complexity of this particular case and the commitment by the players involved pose a significant long-term threat to the WTO's relevance and credibility.

A QUESTION OVER SUBSIDIES

The airline industry as a whole is said to have made a cumulative loss since the Wright Brothers, once the costs include subsidies for aircraft development and airport construction (Mathis, 2006). A distinguishing characteristic of the commercial aviation industry is that the intense competition extends beyond airline operators themselves and into the realm of international trade disputes. One could easily claim that in no other industry has the phrase "subsidies" been more contentious than in aircraft manufacturing. Pavcnik (2002) viewed the aerospace industry as "a textbook example of an industry where governments use trade policy to alter the strategic interaction between the domestic firm and the foreign rival with the goal of shifting market share and profits from a foreign to a domestic firm"

The definition provided by the Agreement on Subsidies and Countervailing Measures (ASCM), as drafted by GATT (now the WTO), had three elements: a financial contribution, by a government or public body within the state and which confers a benefit. All three elements must be present in order for a subsidy to exist, and action taken only if a subsidy has been specifically provided to an enterprise or industry (Mathis, 2006). The ASCM did not actually ban subsidies; it just sought to differentiate between specific aids to companies that were protectionist or unfairly promoted exports, and general support for societal or economic development. Thus, subsidies

were considered detrimental only if they tilted the "level playing field" of international trade.

THE AVIATION INDUSTRY

Aviation-related trade tensions between the United States (US) and the European Union (EU) have been around since the subsidised entry of Airbus's A300 in the early 1970s. The benefits for governments of engaging in trade intervention were clear; Brander and Spencer (1985) believed export subsidies shifted profits from foreign to domestic producers and increased national welfare. The origins of the current fight lay mainly with Boeing's steady loss of market share to Airbus and more specifically, the launch of Airbus's new A380 aircraft. Boeing inherently believed Airbus could have not developed and successfully launched the A380 without the direct help from the EU in the form of illegal subsidies, or what was termed "launch aid". The US, on behalf of Boeing, claimed that EU support for the A380 contravened both the 1992 Agreement and the 1994 GATT (subsequently the WTO) Subsidy code. Boeing used its decreasing market share statistics to show the negative impact the EU's support for Airbus has had on its competitive position, which is required under the 1992 agreement.

While the US was preoccupied with limiting the direct subsidies that benefited Airbus in the past, the EU focused on restraining the indirect support for Boeing through US military and space agencies (Pavcnik, 2002). The EU argued that Boeing had benefited by not only US government support, but also government investment by Japan and Italy. In addition, the EU claimed that Boeing's initial response to their A380, the Sonic Cruiser, had benefited extensively from NASA programmes. This allowed for the deferral of technology to the development of technology for the Sonic Cruiser at a much lower cost than in-house development.

With predictions being that both sides were likely to "win" their cases, the question became who will lose the most. The costs of an escalated trade conflict would be substantial, as both manufacturers rely heavily on each other's markets for consumers.

The exact current value of the industry is difficult to ascertain; airplanes are among the most valuable export products of international trade, but some have forecasted a US \$2 trillion export market over the next 20 years (Gresser, 2004). Aircraft production affects

nearly 80% of the United States economy (Levick, 1993) and is the largest of any manufacturing sector, according to the US Department of Commerce

CLASH OF IDEOLOGIES

The case of subsidies and launch aid between Airbus and Boeing is more than an industrial dispute. It is a clash of philosophies about the limits of state intervention. There is absolutely no question whether the battle between Boeing and Airbus is a thinly-veiled battle between the US and the European Community (now the European Union, or EU).

The EU and US represent the two of the largest economic trading blocs in the world. Both have very different market philosophies, illustrated by their attitudes towards subsidisation. In the US, government encroachment is seen as suspicious and is acceptable under rare circumstances, as recently seen with the likes of Lehman Brothers. Any intrusion by the state is seen as a disruption to free market principles, although many would be quick to point out that the US do dabble in intervention whenever it suits domestic firms (as can be illustrated in an earlier trade dispute involving the steel industry). European political systems, on the other hand, have traditionally mingled public and private sectors. This can be seen during Europe's emergence from WWII, when government support was needed to rebuild Europe's devastated economy and infrastructure (while the US was relatively intact). The EU perceived limits on domestic subsidies as interference on the rights and responsibility of European governments (Meier-Kaenbourg, 2005).

Given the level of commercial interaction between the US and EU, trade tensions are not unexpected. Previous US/EU disputes have arisen many times, usually followed by a successful settlement. Resolution in recent years, however, have become increasingly difficult. By 2005, a year after the US first filed complaints on behalf of Boeing, the EU was already involved in 27 WTO disputes - 15 of them involving disputes with the USA (Breuss, 2005). The Boeing/Airbus dispute could potentially degenerate into a surrogate for wider differences between the US and the EU over international economic policy, with long-lasting effects that extend beyond the aviation industry.

THE DANGER FOR THE WTO

The WTO's mandate is to provide a venue for its members to trade their goods freely. The WTO is concerned with setting legal norms and establishing agreed regulatory frameworks. Using the WTO's dispute settlement system has quickly become one of the most frequently utilised mechanisms for international dispute resolution, with trade retaliation and compensation the typical remedies of disputes. However, its process is said to remain highly

politicised, reflecting persistent national perceptions and differing economic value-systems (Hayward, 2005).

By involving the WTO, this case has huge stakes not only for the companies involved, but the potential to damage the WTO itself. Many questioned whether the WTO was even equipped to handle a case of this magnitude and complexity. The issue of subsidies have been a thorn in the WTO's side, primarily because they can be either unnecessary or desirable, depending on the circumstances. With the airplane manufacturing industry playing a crucial role in each countries' economies, it was seen as doubtful that either party would fully comply with decisions promptly. With each providing thousands of jobs, plus prestige, wealth, and power, it was unlikely that the governments would readily comply with a ruling made by the WTO that was not in their favour.

This was seen as a worst-case scenario; problems that would arise in the event of non-compliance would then have to be addressed by the WTO. Goldstein and McGuire (2004) concluded that both governments may decide the costs of compliance are too high if it meant reversing decades of industrial and technological policy favouring an export-orientated aerospace sector. If governments choose sanctions over compliance, non-compliance may become an acceptable option and the WTO would serve little purpose in the area of dispute resolution. Even worse, the WTO does not have a real enforcement arm. The legalisation of the WTO's settlement process has not been paired with a stronger enforcement mechanism, resulting in a major impediment to the WTO's enforcement of its rulings. In addition, nothing would stop the US or EU from walking away from the WTO if rulings were not made in their favour.

Several recent developments have increased the call for greater examination of this dispute, including the imminent entry of developing country-based manufacturers into this industry. The likes of China in particular has already demonstrated a willingness to bypass international trade laws in order to establish dominance in new industries (Spadafore, 2008). While the US and EU are busy squabbling with each other, countries such as China, Russia and Brazil are likely forging ahead with different forms of subsidisation. In addition, both manufacturers provide spill-over benefits to the world economy with both outsourcing to suppliers worldwide. This paper proposes negotiations can no longer involve just the US and EU. The implications from any WTO resolution will likely affect a multitude of companies worldwide, and in the case of major Japanese subcontractors for Boeing's Dreamliner, the Japanese government may get dragged into the row, further complicating outcomes and potential resolutions. The entry of China and the resurgence of Canada, Brazil and Russia's aviation industries requires an international solution involving all the major players. Thus, this case is no longer

exclusive to the US and EU. Naturally, a larger number of negotiating parties would make it more difficult to find an acceptable solution.

The outcome of the WTO's 2010's initial rulings was that both Airbus and Boeing received government support whether directly or indirectly, but it is difficult to conclusively prove how much each government has benefited in terms of national welfare. The risk comes if both sides continue to appeal to the WTO while continuing their reliance on existing development policies. Given the huge costs of developing and manufacturing new airframes, neither Boeing nor Airbus can afford to concede their existing practices without the other reciprocating. The question now falls to compliance. To have a solution that would be sustained over the long-term, Airbus and Boeing need to negotiate more workable rules for the future, and only bilateral talks permit the kind of reciprocation-bargaining that a WTO panel cannot provide (Mathis, 2006). Regardless of whether a solution can be found outside the WTO or not, a primary objective should be to prevent a "subsidy race" in aircraft manufacturing. A subsidy race remains a plausible scenario and such an event would contravene the mandate of the WTO.

SUMMARY

With the threat of increased protectionism hanging over the world and governments accusing each other of unfair trade practices, developed nations should be leading the world towards trade liberalisation and openness. Yet, in this case the US and EU are sending the wrong message while diverting energy and resources from more pressing needs. Elevating this dispute to the WTO has reflected each nation's differing trade philosophies and has made reconciliation more difficult in an ongoing case that affects stakeholders around the world.

The importance of this case is unmatched. By preceding over this case, the WTO risks losing credibility as a forum for resolving large-scale trade disagreements if non-compliance and other problems result out of the rulings made. If credibility is lost, upcoming trade disputes may not be able to be adequately resolved through the WTO system and could drag on for years, while potentially setting back the facilitation of global commerce and world stability (Meier-Kaienburg, 2005). Observers have noted that there is a real possibility of the EU and US walking away from the WTO if their economic security is threatened. Questions still remain over whether the WTO is even the right arena for this dispute to be resolved, or whether the two parties are better off negotiating a resolution under their own compliance. The differences in political ideology when it comes to state intervention, coupled with the complexity of this particular case, poses a significant long-term threat to the WTO's relevance in facilitating global trade. If a solution to this dispute is not found, and quickly, then

the WTO itself may end up as the biggest loser of the Airbus/Boeing saga.

REFERENCES

- Ahearn, R. U.S.-European Union Trade Relations: Issues and Policy Challenges. Congressional Research Service, 2005
- Breuss, F. Economic Integration, EU-US Trade Conflicts and WTO Dispute Settlement. European Integration Online Papers, 2005
- Carbaugh, R., & Olienyk, J. Boeing-Airbus Subsidy Dispute: A Sequel. Global Economy Journal, 2004
- Delaney, P. WTO Dispute Resolution: Short-term solutions providing the foundation for long-term trade agreements. Miami: St Thomas University, 2008
- Golich, V. From Competition to Collaboration: The Challenge of Commercial-Class Aircraft Manufacturing. International Organization, 1992
- Hayward, K. Trade disputes in the commercial aircraft industry: A background note. The Aeronautical Journal, 2005
- Irwin, D., & Pavcnik, N. Airbus versus Boeing revisited: international competition in the aircraft market. Journal of International Economics, 2004
- Krugman, P. Is Free Trade Passe? Journal of Economic Perspectives, 1987
- Mathis, M. Uncivil Aviation: How the ongoing trade dispute between Boeing and Airbus has undermined GATT and may continue to usher in an era of international agreement obsolescence under the world trade organisation. Tusla Journal of Comparative & International Law, 2006
- Meier-Kaienburg, N. The WTO's toughest case: An examination of the effectiveness of the WTO dispute resolution procedure. Journal of Air Law and Commerce, 2005
- Pavcnik, N. Trade Disputes in the Commercial Aircraft Industry. Oxford: Blackwell Publishers Ltd, 2002
- Spadafore, A. Excess Baggage: Weighing the contribution of political and corporate interests in the WTO cases over commercial aircraft subsidies. Miami: Miami University, 2008

China's Export Success: Who's Behind It?

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ABSTRACT

Since the 1980s China has been one of the most outstanding exporters of manufactured goods in the world. China's exports to the United States were \$4.7 billion in 1986 and it reached to \$364 billion in 2010, 72 times jump during the short 22 year period. Another important point to note here is a radical change in the composition of Chinese exports. In 1980, exports of primary goods took more than 50 percent of total merchandise exported. But since 2000, 90 percent of total exports were shared by manufactured goods. Unlike most agricultural or extractive goods, the export of manufactured goods requires well planned marketing efforts for company's export increase. Who's behind this miraculous accomplishment? A close examination reveals that it's not the Chinese marketing effort.

INTRODUCTION

China is the world's second largest economy after the United States. It is the world's fastest-growing major economy, with average growth rates of 10% for the past 30 years. After more than twenty years of economic reform, China has become one of the most important destinations for trade and direct investment. China is also the largest exporter and second largest importer of goods in the world. China became the world's top manufacturer in 2011, surpassing the United States. For 2010, inbound foreign direct investment into China surpassed \$100 billion for the first time, and investment overseas by Chinese companies in non-financial sectors totaled \$59 billion (Invest in China, 2011).

It is quite amazing how China has conquered the world with their various products. It seems that wherever you go, there is always a China product at hand. China has not only invaded its neighboring regions in Asia, but the United States as well. The US standards is known for its strict compliance, thus for products to be able to pass through this standards, quality must be assured.

China's export structure has shown a rapid shift from labor-intensive industries to capital- and skill-intensive industries (Xu, 2007). As China builds up its technological capacity and skilled labor force, its exports are expected to be increasingly sophisticated.

DETERMINANT FACTORS FOR EXPORT SUCCESS

China has become a global manufacturing center and the "Made in China" products are overflowing everywhere. About 95% of the Wal-Mart store and the Target store merchandises sold in America are Chinese made products. High end manufactured goods, sophisticated electronic products, consumer products, sporting goods, and even

agricultural products find its way to every corner of the US market. It appears that Chinese marketers are performing so well that every product they export to the US market is a market success. China's export marketing success to the US market in this short time period raises a question: Is China's export success to the US market a result of Chinese manufacturing firms' marketing effort? Do they have marketing function and organizational function that generates and creates products? Do they have systems that helps communicating and delivering value to customers? If one looks at the impressive trade statistics, the answer would be a resounding "yes".

Why is China's export's success level so exceptionally high? Some believe that it is due to the size and nature of China's processing trade. Processing exports are significant to China's foreign trade, accounting for 55% of China's exports to the world in 2005 (Ferrantino et al., 2007). Branstetter Some argue that

foreign direct investment (FDI) is believed to be the reason for China's export success. Exports by foreign invested enterprises (FIEs) accounted for more than half of China's exports since 2001 (Ferrantino et al., 2007). The FDI explanation is reinforced by the role of FIEs in China's processing exports, especially in high-tech processing exports. Branstetter & Lardy (2006) pointed out that "most exports of electronic and information products are assembled not by Chinese owned firms but by foreign firms that are using China as an export platform."

Given the strong arguments discussed above, it is important to investigate how a role processing trade and FDI play in determining the China's exports success. In this paper, we will trace the development of China's economic policy regarding US-China trade and China's role as a major center for global supply chains. We will also explore FDI in China and the resulting changes in FDI inflow. Finally, we will discuss the impact of FDI inflow on China's exports success particularly after China's formal accession of the World Trade Organization in December 2001.

EXPORT SUCCESS REASON # 1: Production Facilities Movement to China

We submit an argument that the sharp increase in US imports from China (and hence the growing bilateral trade imbalance) is largely the result of movement in production facilities from the U.S, Europe and other (primarily Asian) countries to China. That is, various products that used to be made in such places as Japan, Taiwan, Hong Kong, Korea, Singapore, etc., are now being made in China (by foreign firms in China) and then exported to the United States. Chinese Premier Mr. Wen Jiabao clearly pointed out who were making products in China and exporting to the United States when he said: "The reason for high exports to the US

is because these are goods the US wants us to make. We get only small margin. (TWSJ, November 28, 2003) An illustration of this shift can be seen in **Table 2**, which lists U.S. imports of computer equipment and parts from 2000-2010. For example, in 2000, Japan was the largest foreign supplier of US computer equipment (with a 19.6% share of total shipments), while China ranked fourth (with a 12.1% share). In just ten years, Japan's ranking fell to third, the value of its shipments dropped by 61.2%, and its share of US computer imports declined to 5.3% (2010). China was by far the largest foreign supplier of computer equipment in 2010 with a 61.5% share of total U.S. imports, compared to 12.1% in 2000 (see **Figure 3**). While US imports of computer equipment from China from 2000-2010 rose by 620.5%, the total value of US computer imports worldwide rose by only 41.9%. Many analysts contend that a large share of the increase in Chinese computer production and exports has come from foreign computer companies that have moved manufacturing facilities to China. For example, Taiwan, one of the world's leaders in sales of information technology, produces over 90% its information hardware equipment (such as computers) in China.(USITC Trade Data Web)

EXPORT SUCCESS REASON #2: FDI AND EXPORT

A number of scholars have long recognized and argued that foreign direct investment (FDI) is one of the main forces driving economic growth (Blomstrom et al., 1992). FDI is of particular importance to developing countries (Balasubramanyan et al., 1996) and to China specifically (Chen et al., 1995; Luo, 1998; Wu, 2000). It has been scientifically determined that FDI is more efficient in contributing to economic growth of the host country than domestic investment. Blomstrom et al. (1992) find a strong effect of FDI on economic growth in less developed countries. Findlay (1978) also postulates that FDI increases the rate of technical progress in the host country through a 'contagion' effect from the more advanced technology, management practices etc., used by the foreign firms. Borensztein et al. (1998) found that FDI is an important vehicle for the transfer of technology, contributing to growth in larger measure than domestic investment.

Since China began its economic reform in the late 1978, it has gradually opened up to the rest of the world with increasing foreign direct investment (FDI) inflow and international trade. China received a cumulative total of US\$ 10,305 billion in FDI during the last 20 year period (1991-2010) and benefitted tremendously from both tangible and intangible assets associated with FDI inflows. This strategy has been very successful. China's exports grew rapidly and reached US\$ 1,600 billion in 2010. Looking at Chinese export data by producer type reveals that FDI firms, both direct and joint ventures have been the major contributor to the drastic export expansion. They accounted for almost 54 percent of China's total trade.

Before 1979, China had been isolated from the rest of the world for more than 30 years. During this period, the foreign investment inflow was almost zero. Even in 1991, annual FDI into China was only US\$ 4.4 billion. The first

FDI boom occurred after 1991. FDI jumped to US\$ 11 billion in 1992, more than triple that of 1991. The rapid growth continued and FDI reached a peak in 1998 with US\$ 45.5 billion. One reason for the surge in FDI was Deng Xiaoping's tour to the southern provinces in 1992 which encouraged local governments to open up further to foreign investors. This had the effect of accelerating China's institutional reform towards economic integration with the world economy. Another important factor was the cumulative devaluation of the Chinese Yuan from 1989 to 1994. The wealth and production cost effects associated with the devaluation reduced relative costs of labor and intermediate inputs, and greatly enhanced China's competitiveness for FDI.

Sources of FDI in china

Based on the data, Hong Kong, a financial hub of the Southeastern Asia, is the leading FDI source for China. From 1992 to 2010, cumulative FDI from Hong Kong amounted to US\$ 455.8 billion. The cultural linkage and geographic proximity between the Mainland and Hong Kong are the major reasons. These factors generally reduce transaction costs and lower asymmetric information barriers for investing in China.

Japan is China's second largest contributor of FDI. From 1992 to 2010, Japanese multinational companies cumulatively invested US\$ 70.2 billion. Japanese foreign direct investment (JFDI) outflows increased greatly during the 1980s as a result of the loss of competitiveness of Japanese products in export markets. After China joined the WTO, the lucrative auto-market in China attracted a tide of FDI from Japan. Major Japanese auto makers such as Toyota, Honda, and Nissan have accelerated their expansions in China. They have substantially increased direct investment for the expansion of production capacities catering to the fast growing local market (Xing, 2007).

The US ranked third with US\$ 64.4 billion cumulative FDI. The attention paid to China and its economic engagement with the rest of the world has led many to conclude that it is a leading destination of US FDI.

Taiwan emerged as the fourth largest FDI investor from 1992 to 2010 with US\$ 59.8 billion. The motivation for Taiwanese firms to locate their FDI investment in China is influenced by strong ethnic ties with the home country (Strange et al., 2009). This can be more salient for business groups because prior research shows that Taiwanese business groups are characterized by family and social networks (Chang et al., 2006).

EXPORT SUCCESS REASON # 3: GOVERNMENT POLICIES AND MNCs

The competitive edge created by the pressures of international competition increases the productivity of the host country's export sector. So, the productivity gains will attract inward FDI and exports will lead inward FDI. The essence of this argument is that foreign investment brings with it international market knowledge and global distribution networks not necessarily available to local firms. FDI can create greater export potential and may alter a country's export product mix over time. In these

circumstances, inward FDI will lead exports.(Muchielli & Chedor, 1999).

Exports not only stimulate economic development and structural change, they also attract FDI into China. An appropriate policy in these circumstances is trade liberalization designed to reduce exporters' cost and to encourage exports. The FDI that is encouraged by export expansion will stimulate the overall development of the domestic economy. China developed an appropriate strategy to provide incentives for FDI, which led to export growth. This seems to have been the motivation for the establishment of the first special economic zones (SEZs) by the PRC in 1979 (Zhang & Felmingham, 2001).

China's export-led economic growth policy since 1981 in China was the major institutional change for the drastic expansion of trade. In the process of implementing the export-led economic growth strategy, FDI has performed a critical role in promoting China's exports. Lacking, marketing channels, brand name recognition, capital and technology have made it difficult for Chinese exports to enter the world market, in particular the markets of industrialized countries. With the entry of multinational corporations (MNCs) which utilize China as a platform for exports, China has been integrated into global production chains. Combining the advantages of MNCs in technology, brand names and marketing networks, the low cost made-in-China products have been able to enter the world market and compete with products from other countries. The trade statistics suggest that the impressive export growth of China over the last three decades has been mainly the result of export-oriented FDI. Even in the 1980s, the exports of foreign-invested firms were merely US\$ 0.3 billion. However, by 2010, these exports surged to US\$ 862 billion. In 1998, the first year after the Asian financial crisis, exports of Chinese domestic firms decreased 4.8 per cent while those of foreign-invested firms grew 8.1 percent. It was foreign-invested firms which made the overall export growth positive. Without FDI, China's export led-economic growth strategy would not have been as successful. **Table 4** summarizes the Chinese export statistics by foreign-invested enterprises (FIEs), from 1992 to 2010.

CONCLUSION

This paper attempted to offer an answer to the question of who's behind the Chinese export success. The "Made-in-China" products find no national boundaries. Even in Japan Sony, Panasonic, Toshiba, all pride of Japanese electronics brands and once considered as "monozukuri", the Japanese art of manufacturing, are sold in the streets of Akihabara with the mark of Made in China.(USA Today, January 6, 2011)

Despite its outstanding export performance, a close examination of the Chinese export industry reveals that its marketing functions are severely limited. Most of the marketing functions, except the initial product development process, are carried out by foreign visiting buyers and the MNC executives. They seem to be the main decision

makers for promotion decisions, pricing and distribution decisions and of course they bear the risks associated with the overseas marketing operations. Another determinant factor for the export success was the foreign direct investment made in China. China received a cumulative total of US\$ 10,305 billion in FDI during the last 20 year period (1991-2010). Still another determinant factor for the Chinese export success was the government policy. The Chinese government's policy for FDI strategy has been very successful. With this FDI inflow, China's exports grew rapidly and reached US\$ 862 billion in 2010. Looking at Chinese export data by producer type reveals that FDI firms, both direct and joint ventures have been the major contributor to the drastic export expansion. They accounted for almost 54 percent of China's total trade.

In contrast with Japan and Korea where their export successes reflect their aggressive global marketing efforts, the Chinese export marketing effort appears very limited and foreign dependant. Japan and Korea, for example, design their own products and brands, spent heavily to develop and promote brand names and controlled their own marketing. Very few Chinese companies promote and export their products overseas. As a result of this passive marketing, Chinese export-led economic growth may face a severe test for the future economic development.

In summary, it can be concluded that the major actors for the successful export appear to be three entities: first, Chinese government itself (export-led economic development policies), second, the "visiting foreign buyers" to buy low priced products, and third, MNCs' foreign direct investment (FDI), the "foreign joint-venture firms" who are setting up factories in China for export purposes. Thousands of foreign purchasing agents, brokers, and hundreds of MNC executives visit China from all over the world to search out lower-priced product sources and most of the required marketing functions are performed by foreign business people doing business in China.

The Role of U.S. - South Korea Bilateral Trade Agreements in the Growth of Franchising in South Korea

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Abstract

In the global economy over the past decades, it has become increasingly clear that global trade policies have shifted from multilateralism toward regionalism, liberalizing international trade with relaxation of trade barriers and non-trade barriers, and thus proliferating Free Trade Agreements (FTA) very rapidly. Examples of this global process include the North American Free Trade Agreement (NAFTA), MERCOSUR, the Association of Southeast Asian Nations (ASEAN) and the European Union (EU). South Korea has been heavily dependent on exports in its economic development policy and has recently shown its active participation in the global trade liberalization process. Its economic policy, therefore, has focused on reaching strategic free trade agreements with its trading partners as a way to accelerate its economic development. South Korea concluded a Free Trade Agreement with the United States in April 2007 (also known as KORUS FTA). Although the pact has yet to be ratified by lawmakers of both countries, once ratified, the agreement is expected to have a significant impact on the South Korean economy. In 2009, the US was the 3rd largest export market for South Korea with an export volume of \$37,650 million, and the 4th largest source of imports with an import volume of \$29,039 million. It was also South Korea's 4th largest suppliers of foreign direct investment (FDI) with an investment amount of \$1,486 million in 2009 (Ministry of Knowledge Economy, 2008). Ironically, South Korea is not part of a Free Trade Area in Asia because of its complicated economic and political history with its closest and biggest neighboring East Asian nations, China and Japan. However, all three countries have separately established bilateral FTAs with ASEAN. Meanwhile, the relaxation of trade barriers and non-trade barriers in the globalized business environment, accelerated by advances in transportation systems, has not only boosted international trade in goods, but has also encouraged international trade in services.

Franchising has been considered one of the most successful business models of the 20th century. As franchising has reached widespread market coverage in Western economies, most notably in the U.S. and Western Europe, franchisors have actively begun to cross borders to penetrate new markets, and this has led to the sustained growth of franchising around the world (Gillespie, Jeannet and Hennessey, 2007; House Committee on Small Business, 1990). One of the beneficiaries of this development has been the South

Korean economy, where a great leap forward has been made since Seoul hosted the Olympic Games in 1988. As the South Korean economy has grown internationally and has become interrelated and interdependent with other economies in the world, it has become possible for South Korea's franchising industry to make rapid progress in recent decades. Alon and Welsh (2001, pg. 282) point out that deep economic integration requires a greater level of cooperation between signatory countries and allows not only for the free mobility of goods and capital, but also the free mobility of labor (Alon and Welsh, p. 282). Given that the KORUS FTA is a comprehensive FTA, which includes trade in goods, services and investment, it is likely to have a significant impact on further growth of franchising in South Korea. The purpose of this paper is

- (a) to review why East Asian nations (including Korea, Japan and China) are currently not part of a Free Trade Area;
- (b) to synthesize the nature and frequency of South Korea's bilateral trade agreements overall, and compare the importance of such agreements with the US to those with the rest of the world;
- (c) to analyze the nature of trade in franchising services under the World Trade Organization;
- (d) to summarize the development of the franchising industry in South Korea; and
- (e) to provide an outlook about issues that have not yet been addressed thus far in trade agreements which may have a significant impact on further growth of franchising in South Korea.

Select References

- Alon, Ilan and Welsh, Dianne H.B. (2005). *International Franchising in Emerging Markets: China, India and Other Asian Countries*. Chicago, IL: CCH Incorporated
- Gillespie, K., Jeannet, J.P., & Hennessey, H.D. (2007). *Global Marketing*. Boston: Houghton Mifflin Company
- House Committee on Small Business. (1990). *Franchising in the U.S. Economy: Prospects and Problems*. Washington D.C.: U.S. Government Printing Office
- Ministry of Knowledge Economy. (2008). *Redefining Korea MKE*. Retrieved from <http://www.mke.go.kr/language/eng/index.jsp>

Incoterms 2010: the latest version of delivery terms

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ABSTRACT

Incoterms, an acronym for **International Commercial Terms**, are a set of voluntary delivery terms that may be incorporated into international sales contracts. First devised in 1936 by the International Chamber of Commerce (ICC), these terms have been regularly updated, to keep pace with modern business practices, especially as they relate to the movement of goods across international boundaries. On 12 May 1992 the Incoterms were endorsed by UNCITRAL for the first time in their history, and recommended as the standard terms to be used in international commerce. Since then, the popularity of Incoterms has continued to grow, as evidenced by their adoption in more contracts across the globe. Yet, Incoterms are not a body of law, rather they are a set of rules that have legal effect once specifically incorporated into the contract of sale.

Incoterms “define the rights, duties, obligations and responsibilities of sellers and buyers” [1] (p. 243) in the movement of goods, and associated services, from origin to destination. These terms, therefore, concern themselves with issues such as the en-route risk transfer from one contracting party to the other, the provision of documentation, barrier clearance (including security clearance), who is responsible to enter into a contract of carriage and insurance, and who bears the costs for freight and insurance. Incoterms do not deal with the issue of property at law, nor breach of contract and its consequences, or the price to be paid for the goods, as this is a commercially negotiated matter [2].

The latest revision of these terms, the Incoterms 2010 became effective on 1 January 2011, and introduced a number of fundamental changes. These include: the removal of four terms and the introduction of two new terms; the reclassification of terms from four categories to two; and a new regime for determining risk transfer en route for non-containerised maritime cargo. Another important change introduced by the Incoterms 2010 is that these rules may now also be applied to domestic sales contracts.

This paper considers the changes introduced by the new Incoterms 2010 and discusses the likely challenges that sellers and buyers will need to address, to successfully adopt these new terms of delivery into contracts of sale.

INTRODUCTION

It should be noted that although Incoterms 2010 may be used for domestic sales, this paper limits the discussion to the more complex international transactions, focusing on transport issues. As the Incoterms 2010 are a recent introduction a body of literature does not yet exist.

Incoterms 2010 deal with the physical delivery of goods from sellers to buyers. Like its predecessor sets of rules, dating back to 1936, have voluntary application, and as such must be specifically incorporated into contracts of sale. This is easily accomplished by a specific reference to the Incoterms followed by the applicable year of revisions, for example ‘Incoterms 2010’. The inclusion of the revision year is important, otherwise ambiguity may exist as to which version of Incoterms may apply to the contract, with consequential uncertainty over the responsibilities of sellers and buyers in the execution of the contract. This is because the Incoterms rules have had to undergo regular updating, to reflect changes in contemporary transport practices. This is indeed the case at the time of writing this paper, as the trading world is in stage of transition, with Incoterms 2000 and Incoterms 2010 being concurrently used.

Incoterms 2010 became effective on 1 January 2011, meaning that any contract executed until 31 December 2010, with a delivery in 2011 could not use Incoterms 2010, but instead would have referred to Incoterms 2000. It is known from industry sources that sellers and buyers are using both versions of Incoterms concurrently over different contracts, depending on their execution date. The implications of the differences of Incoterms 2010 versus Incoterms 2000 are outlined in the discussion that follows later in this paper.

The incorporation of Incoterms into a sales contract is useful in identifying which party is responsible for undertaking certain functions that are essential to the movement of goods across international borders, as shown in Figure 1. It is important to note that, whilst these functions are essential to complete the sales contract, each gives rise to a separate contract that, although emanating from the contract of sale, is independent of it. For example, in Figure 1 the contract for the domestic carriage of goods from the exporter’s works to the point of export may be executed between

the domestic carrier in the country of export and either the seller or the buyer (depending on Incoterms chosen).

Figure 1: Subsidiary contracts arising from the sales contract [2] (p. 244)



To further illustrate the example, if the term chosen in the contract of sale is Ex Works (EXW) Incoterms 2010, the buyer is responsible to collect the goods from the seller's premises and take care of the actions identified inside the box in Figure 1. In this context the buyer will contact with the domestic carrier in the seller's country to transfer the goods from the export works to the point of export. In this situation the contact binds the buyer and the domestic carrier, but not the domestic carrier and the seller. The usefulness of the Incoterms is their clear apportionment of responsibilities and risks in transit applicable to each term.

Incoterms 2010 provide a considerable number of changes from Incoterms 2000, and these are discussed in the next section.

INCOTERMS 2010 CHANGES

Whereas Incoterms 2000 placed each of its thirteen terms into four categories according to whether the seller or the buyer was responsible for the payment of freight charges, the Incoterms 2010 take a very different approach, categorising the terms according to mode of transport applicability. A summary of the Incoterms 2010 and their categorisation is shown at Table 1.

It can be observed from Table 1 that two terms, DAT and DAP appear in bold text. These are new terms introduced by Incoterms 2010, replacing previous Incoterms 2000. DAT replaces the former Delivered Ex Quay (DEQ) and DAP replaces the former, Delivered At Frontier (DAF); Delivered Ex Ship (DES); and Delivered Duty Unpaid (DDU). The rationalization of Incoterms by reducing the number to

eleven from the previous thirteen was made possible by the changes that have evolved in modern transport practices, particularly in recognition that maritime container traffic is invariably a part of the overall multimodal transport application.

Table 1: Incoterms 2010 categories [3] (p. 39)

Terms	Category
<ul style="list-style-type: none"> Ex Works (EXW) Free Carrier (FCA) Carriage Paid To (CPT) Carriage and Insurance Paid to (CIP) Delivered At Terminal (DAT) Delivered At Place (DAP) Delivered Duty Paid (DDP) Ex Works (EXW) Free Carrier (FCA) Carriage Paid To (CPT) Carriage and Insurance Paid to (CIP) Delivered At Terminal (DAT) Delivered At Place (DAP) Delivered Duty Paid (DDP) 	Any mode or modes of transport
<ul style="list-style-type: none"> Free Alongside Ship (FAS) Free On Board (FOB) Cost and Freight (CFR) Cost Insurance and Freight (CIF) 	Sea and inland waterway transport

The most significant changes have taken place in the sea and inland waterways category, and due to space limitations, this is the focus of the discussion in the next section.

INCOTERMS 2010 SEA AND INLAND WATERWAYS CATEGORY

In as much as maritime container traffic has revolutionised transport practices and made an immense contribution to international logistics, there has been an uneasy application of Incoterms to this mode of transport. It is curious that the term FOB originally developed for maritime trade centuries ago, and well before the advent of containerization in the 1960s, has been so readily applied to maritime container traffic, with apparently little consideration for the risk in transit transfer point.

It is unquestionable that there is a fundamental difference in cargo handling between conventional maritime traffic and container traffic. The term FOB, as originally coined, would see the seller responsible for delivering the consignment to the wharf, for the goods to be lifted for the delivery vehicle on board the vessel at the agreed port of departure. The risk transfer point was the 'crossing of the ship's rail' – a problematic issue at law, described as a curious situation describes as "only the most enthusiastic

lawyer could watch with satisfaction to the spectacle of liabilities shifting uneasily as the cargo sways at the end of a derrick across a notional perpendicular projecting from the ship's rail" [4].

The question of the ship's rail lies at the core of the argument for the inappropriate use of FOB, and by implication CFR and CIF. CFR is an 'extension' of FOB, where the risk transfer point is not changed, remaining at the ship's rail, but the seller repays freight charges to destination. CIF 'extends' this notion against placing an obligation on the seller to provide insurance to the buyer, but the risk transfer point remains the same as FOB, that is, at ship's rail.

In Incoterms 1990, Incoterms 2000 the inappropriate use of FOB, CFR and CIF for maritime container traffic were highlighted by the ICC, but there is a large body of evidence from industry sources that points to continued inappropriate use of FOB, CFR and CIF contracts for maritime container traffic despite the recommendations from the ICC. This issue becomes more critical under Incoterms 2010 because the risk transfer point under FOB has been extended, as the whole consignment needs to be successfully loaded onto the vessel before the seller has discharged their obligations.

The reason why FOB, CFR and CIF are not appropriate to container traffic is because the ship's rail plays no practical purposes in the handing over of the goods to a carrier. This is simply a reflection of contemporary transport practices. An analysis of a typical container movement reveals the irrelevance of the ship's rail in the handing over of the goods to the carrier.

An exporter arranges for goods to be collected from their premises in 'loose' form, that is, packed but not containerised. The goods are loaded onto the collecting vehicle for transportation to a container stuffing warehouse. The goods are unloaded from the arriving vehicle then packed into a container. The goods are subsequently loaded onto a vehicle for transport to freight forwarder for export processing. On arrival the goods are unloaded and placed in the warehouse. Subsequent to export processing the goods are loaded onto a delivery vehicle for transport to the export wharf. On arrival the goods are unloaded from the delivery vehicle and placed on the wharf's marshalling area where the container may be moved several times, for operational reasons before being loaded on board the vessel. If this sequence of events is compared with the traditional FOB situation, the differences in practices should not be difficult to see. There is a minimum of eight 'lift-on' and 'lift-off' occurring the maritime container traffic prior to the good being loaded on board, yet the seller loses physical control over the goods once these leave the export premises at the beginning of the journey. This

means that a seller using FOB for maritime container traffic has a greater risk in transit exposure and, importantly, the seller retains this exposure where unknown third parties are handing the consignment, for example stevedores at the export wharf. From a risk management perspective this is not an ideal situation. Sellers should, therefore, be seeking to use Free Carrier (FCA) terms instead. FCA is a more flexible term, as it enables the delivery point to be specified at any point between the seller's premises and delivery to the carrier at the export wharf. FCA does not contemplate the seller being responsible for the goods being loaded on board the vessel, as this is the responsibility of the buyer in this term. FCA provides for the synchronisation of risk transfer and delivery, as these points can be constructed to coincide, something that is not possible under FOB (or CFR and CIF).

The comments made for FCA also apply to CPT and CIP contracts, where the payment for freight, and freight and insurance respectively are the responsibility of the seller, but the risk transfer point remains as per FCA.

CONCLUSION

Incoterms 2010 clearly discourage traders from using terms such as FOB, CFR and CIF for maritime container traffic. This issue is likely to continue to be problematic in the short to medium term, as this recommendation dates back to Incoterms 1990, yet traders have been unwilling to implement this on a large scale. The main problem in ignoring this recommendation is greater uncertainty over risk transfer points and for the seller a, perhaps unwittingly, greater assumption of risk.

It remains to be seen how successful the adoption of the Incoterms 2010 will be in the medium to long term and whether the challenges of FOB, CFR and CIF will be overcome. One solution may be for traders to educate themselves on the proper usage of Incoterms 2010 for maritime trade to minimise ambiguity and risks.

REFERENCES

- [1] Bergami, R. (2009) International trade: a practical introduction, 3rd ed., Melbourne, Australia: Eruditions Publishing.
- [2] International Chamber of Commerce (2010), Paris, France: ICC Publishing S. A.
- [3] Bergami, R. (2011) Apportioning of risk and cost at the core of Incoterms, Shipping Australia, Autumn, pp. 38-40.
- [4] Devlin J (1954) in *Pyrene Co Ltd v. Scindia Navigation Co Ltd* 2 Q.B. 402 at 419.
- [5] Ramberg, J. (2011) ICC guide to Incoterms 2010, Paris, France: ICC Publishing S. A

A Study of the Effect of Social Media Marketing Messages on Attitude towards Green Products in Social Media

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ABSTRACT

There are several companies that focus on selling the green lifestyle in Indonesia through the medium of social media. The problem identified here is the stagnancy of their retail sales number at a low level, despite the fact that the number of social media users in Indonesia is among the largest in the world and keeps increasing. Therefore this study was undertaken to investigate (1) gratifications underlying social media usage, (2) attitudes toward social media marketing messages, (3) the effectiveness of social media marketing messages concerning green issues, and (4) the effectiveness of social media marketing messages concerning consumers' attitude towards green products.

INTRODUCTION

Social Media

Social media is "the media that is published, created and shared by individuals on the internet, such as blogs, images, video and more".^[1] There are six types of social media, they are collaborative projects, blogs and microblogs, content communities, social networking sites, virtual games world, and virtual communities.^[2] Even though social media has been recognized as the most potentially powerful medium in business practice, there is lack of understanding in terms of why people use social media and how they perceive social media marketing messages.^[3]

THEORETICAL BACKGROUND

Uses and Gratifications (U&G)

Uses and Gratifications (U&G) research was developed based on social and psychological origins of needs which generate expectations of the media. Researchers found that people use internet-based communication for various gratifications such as entertainment, information, and social interactions (Sangwan, 2005).

Attitudes Toward Green Products

The attitude toward the ad influences brand attitudes and purchase intentions.^[4] In other word, the ad also gives influence to online shopping behavior. In this

study, the product offered is a green product category, thus the relationship between consumers' attitudes toward green products and social media marketing messages is examined.

RESEARCH DESIGN

Two research designs, both qualitative and quantitative, were employed. Qualitative method using in-depth interviews were conducted to seek ideas and opinions from six individuals within the age of 18-44 years old from various backgrounds. The quantitative method using a web-survey spread through social media sites such as Facebook, Twitter, forums, and blogs. A total of 303, 181 male and 122 female, 53% are college students, 26% work as employee and 21% other occupations, within the age of 14-48, responded to the survey. Data were entered and analyzed for descriptive and inferential statistical tests. Most of respondents indicated that they have used social media sites approximately for five years. Usually, they spend 4 hours a day accessing social media. They also explained that they do online shopping a few times a month (20%) and a few time a year (80%).

A conceptual model was developed to investigate the relationship among variables as shown in FIGURE 1.



FIGURE 1. Conceptual Model

Thus, the following hypotheses are developed:

- H1: Social Media **entertainment** gratification has a positive relationship to **attitude** towards social media marketing messages.
- H2: Social Media **interaction** gratification has a positive relationship to **attitude** towards social media marketing messages.
- H3: Social Media **information** gratification has a positive relationship to **attitude** towards social media marketing messages.
- H4: **Attitudes** toward social media marketing messages have a positive relationship to online shopping **behavior**
- H5: Online shopping **behavior** has a positive relationship to online shopping **experience**
- H6: **Attitudes** toward social media marketing messages have a positive relationship to attitude towards **green products** in social media
- H7: **Attitudes** toward social media marketing messages have a positive relationship to attitude towards **green issues** in social media
- H8: Attitude towards **green issues** in social media have a positive relationship to attitude towards **green products** in social media

RESEARCH FINDINGS

Data Analysis

The survey resulted that only 6% of respondents who has ever bought green products in social media, leaving the other 94%, but within this 94%, 74% stated that they are interested to buy green products online through social media. We should see why is this remaining 26% still reluctant to buy, some of their reasons could be read below;

- The lack of information about green products in social media causing the limitation of consumers' knowledge about green products
- The skepticism about environmental change, as described by a respondent, *"If I used the green products, while the others still not, why would it be able to save our environment?"*
- The hesitation for doing online shopping itself.

TABLE 1. Gratifications underlying social media usage Attitudes toward social media marketing messages

Gratification	Indicator Variable	Mean	Grand Mean
Entertainment Gratification	I access social media because...	5.5	5.5
	It is entertaining	5.3	
	It amuses me	5.5	
	It is fun	5.6	
	It is enjoyable	5.4	
Information Gratification	It is easier to get information	6.0	5.6
	I use social media to search for information.	5.8	
	Social media is the main communication channel for me	5.5	
	Social media is an important part of my life.	5.3	
	it is informative.	5.7	
Interaction Gratification	I can express myself freely.	5.9	5.8
	I enjoy answering other people's questions.	5.5	
	It makes me feel less lonely.	5.1	
	To communicate with family and friends.	5.8	
	To participate in discussions.	6.0	
	It is interactive.	6.3	

TABLE 2. Attitudes toward social media marketing messages

Indicator Variable	Mean
When I see something new that I really want, I purchase it immediately, even if I had not planned to buy it.	4.7
Online shopping is fun to buy spontaneously.	4.1
Generally speaking, I would consider myself to be an impulsive shopper	4.0
For me, buying items via online is a spontaneous occurrence.	4.5
When I do online shopping, I often make unplanned purchases	4.2

TABLE 3. The effectiveness of social media marketing messages concerning green issues

Indicator Variable	Mean
I like to search information about green issues	3.8
I like to spread information about green issues	3.7
I joined one or more online communities that are concerning about green issues	3.8
I like to discuss about green issues in social media	3.8

TABLE 4. The effectiveness of social media marketing messages concerning consumers' attitudes toward green products

Indicator Variable	Mean
I like to search informations about green products in social media	3.7
I joined one or more online communities that are concerning about green products	3.6
I like to read about green products in social media	4.0
Product informations in social media help me to know more about green products	4.3
Product informations in social media make me interested to purchase green products	4.0

TABLE 5. Consumers' Willingness to Pay

The desired price for green products	Frequency	Reason
More expensive	26%	Because they give contributions to our environment
Cheaper	8%	Because green products are not that attractive
Same as normal price	59%	To make it more familiar like another usual products
I don't care	7%	

Using AMOS 18, a two-step data approach was used to assess the measurement model of the factors and to test the structural models. Confirmatory factor analysis (CFA) was used to test the overall validity of the measurement theory. CFA results of the overall model analyses indicate that the χ^2 for measurement model is 3649.9 ($p = .000$) with 808 degrees of freedom. The fit indexes are Comparative Fit Index (CFI) = .0.72, Normed Fit Index (NFI) = .66, Root mean Squared Error (RMSEA) = .09, and Tucker-Lewis = .69. Because of the sample taken was in a large number (>200), the model could be assumed acceptable.

After measuring the measurement model, the structural model was being analyzed and the hypotheses were being tested. All hypotheses were tested and the SEM structural path results indicated that all relationships except the one between social media entertainment gratification and social media marketing messages were significant.

TABLE 6. Loading Factor Estimation

Construct	Construct	Estimate
Attitude toward S.M. Marketing Messages	Entertainment Gratification	-0.021
Attitude toward S.M. Marketing Messages	Information Gratification	0.239
Attitude toward S.M. Marketing Messages	Interaction Gratification	0.424
Online Shopping Behavior	Attitude towards S.M. Marketing Messages	0.433
Attitude towards Green Issues in S. M.	Attitude towards S.M. Marketing Messages	0.173
Online Shopping Experience	Online Shopping Behavior	0.056
Attitude towards Green Products in S. M.	Attitude towards S.M. Marketing Messages	0.122
Attitude towards Green Products in S. M.	Attitude towards Green issue in S. M.	0.958

The strongest relationship was shown between interaction gratification and attitude towards social media marketing messages, which is also, affects the online shopping behavior and attitude towards green products in social media. The attitude towards green issue in social media strongly affects attitudes toward green products in social media. Thus, H2, H3, H4, H5, H6, H7, H8 were supported, and H1 was not supported.

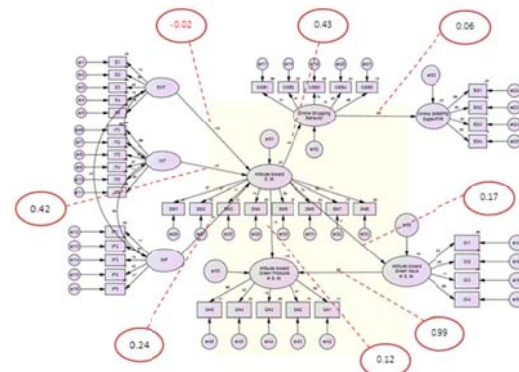


FIGURE 2. Structural Path Result

CONCLUSION

Studies performed on consumers reflect that in most countries consumers are becoming more aware and willing to act on environmental concerns. There is a radical change in consumer preferences and life styles. They prefer environment friendly products over the others and many times are ready to pay a little extra price for such green products.^[5] But the result of this study is saying the opposite fact.

REFERENCES

- [29] Strokes. R. (2009). *eMarketing: The Essential Guide to Online Marketing* Quirk eMarketing Ltd.
- [30] Kaplan, Andreas M. & Michael Haenlein (2010). *Users of the world, unite! The challenges and opportunities of Social Media*. *Business Horizons* 53 (1): 59–68.
- [31] Chung, Christina, & Austria, Kristine. *Social Media Gratification and Attitude toward Social Media Marketing Messages*. Anisfield School of Business Ramapo College of New Jersey, 2010.
- [32] MacKenzie. S. B., Lutz. R. J., & Belch. G. E. 1986. *The role of attitude toward the ad as a mediator of advertising effectiveness: A test of competing explanations*. *Journal of Marketing Research* 23. 130-43.
- [33] Saxena, Ravindra P. & Khandelwal, Pradeep K. *Green Marketing: A Challenge or an Opportunity in the Global Environment*. *Global Studies Journal*, Vol 2, Issue 3, pp 59-74

Identification of Important Green Marketing Attributes Which Increase Intention to Business Schools for Generation Y Student: a Preliminary Study in School of Business and Management, Bandung Institute of Technology (SBM-ITB)

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ABSTRACT

Since the early 2000s, environmentally responsible strategy in business schools has become a trending topic, especially because of the growing green preferences and brands. Institutions have different “eco-friendly practice” ways to affect people’s intention to choose them as a place to study. This paper contributes to identify important green marketing attributes that increase Generation Y students’ intention to choose School of Business & Management, Bandung Institute of Technology (SBM-ITB), in Indonesia. Through the use of qualitative and quantitative approaches, including frequency and cross tab analysis to evaluate data, research results would recommend business school leaders to improve institution’s strategies by using specific green marketing attributes to increase school preferences for generation Y students.

Key words: *environmentally responsible, SBM-ITB, intention to study, institutional strategies.*

INTRODUCTION

Over past decades, business schools witnessed green services as something that Gen Y are not skeptical about anymore, but shifting to commoditization, especially because of their vital role whose intensions and choices become brand differentiator, along with social media exposure and thus driving new economy [6]. This shape green marketing to such consumers must be closely related with organization’s operation strategy and philosophy in order for the opportunity to be successful. The exploitation of such strategy to Gen Y not only could lead organization to have brand development and highly intended, but also to be more responsible for the environment and make the planet healthier [6]. Understanding those green attributes that preferred by this prospective consumers’ mind and behavior are the key success in attracting new students (school branding) for enrollment and retaining them inside [6].

Research Objective

This paper aims to identify Generation Y’s most important green marketing attributes that affects their intention to choose SBM-ITB, in Indonesia as their education institution.

Research Question

The main research question which will be discussed in this paper is: “What green marketing attributes are considered

most important for Gen Y in determining their business school choice?”

Originality

Past studies on Gen Y and its relations with enrollment caused by green marketing are somehow seldom to find. Many references are also comes from Western perspective and almost none come from Asia, or even Indonesia. This condition makes researcher believe that this study could contribute to academic and business people to have an SBM-ITB point of view of Gen Y perception on green marketing attributes affecting them in choosing business school for their education.

LITERATURE REVIEW

Not too long ago, in 1980s, green consumers are only a small group of market. Nowadays, 83% of consumers, including Gen Y are some shade of green which results in newly defined market segments [6]. It is clearly stated that green marketing could generate golden opportunity as well. Thus making it extremely important for organization to understand the generation that will influence and grow consumer market in the future: Generation Y.

Green marketing is holistic study that are not only related with the natural environment, but also with its development, human behavior, materials and tools, in order to results in success. Basically, the human discipline are the one making this marketing hard [3].

From organizational point of view, environmental strategy must be integrated into all parts of marketing, as holistic and systematic as possible. Still, this must be suited with consumers needs and intentions, in order to reach consumer satisfactions [4].

Generation Y

Generation Y do believe that global warming and climate change are caused by human activities, thus making them twice more likely to have higher intention toward green products or services than those that thinks that climate change occurs naturally [6]. Their seeking for university’s green experience also become a vital part in their quest for balance between “quality of life” and “almighty wealth”. Moreover, they also search for making a living and making

a difference, especially for contributing to brighter future for next generations, or in other word is sustainability. [1][6]

Their growing history using computer and technology, well-educated, plus need long time for brand loyalty makes business even more challenging, but suited with green marketing.

RESEARCH METHODOLOGY

This paper is an initiative research in Indonesia represented by student in SBM-ITB. The research was designed in two phases, a qualitative study which was followed by quantitative study, dual approach, using methodology reference. The qualitative study was done 6 months ago to discover several potential green marketing attributes that thus would be included in the questionnaire at the second phase, which is the quantitative one. In October 2010, interviews were conducted to 10 students in their first, second, and third year from SBM-ITB with diverse background including sex, education level, ethnicity, major, GPA, and organization activities. Then, the control variable is age range, which was between 16 – 30 years old or in other words, those born in 1980s, 1990s and before 2000s.

Then in the second phase, the resulting questionnaire was distributed to 80 students from SBM-ITB along with diverse background. In a full month period (March 2011), all questionnaires were returned to the researcher, with 76 of them were valid within the age range, therefore resulting a response rate of 95.00%.

The questionnaire made in answering the research question is presented in list format consisting 25 green marketing attribute statements with Likert method. Each respondents were asked to rate the importance of each statement with scale from 1 (not important) to 6 (very important). They were also requested to choose three most important attributes among the 25 statements. Below are the list of those 25 green marketing attributes: [2][5][6][7]

1. Have clearly marked bins throughout campus to make recycling easier
2. Doing general periodic energy audit
3. Using high-efficiency bulbs instead of existing conventional lightbulbs
4. Have installed programmable thermostats to shift temperatures by +/- 2 degrees
5. Using water displacement devices in toilets to reduce volume of water used on every flush
6. Have installed aerators on faucets to reduce amount of water used
7. Use scanners and PDF formatting to digitize hard copy data for future use and distribution
8. Using computer software that automatically eliminates wasteful pages in printouts
9. Using computer software with automatic ON/OFF application on idle times
10. Have *“by not printing this email, you have saved tree and Earth”* message on every email
11. Provided safe, accessible bike racks that encourages biking
12. Use reused boxes for any shipping

13. Also use electronic versions of marketing or publication materials and posted into website
14. Shifted periodic paper mailings and postage into internet media communications
15. Serving conventional glass water instead of bottled water at lecturer meetings
16. Use teleconference or web conference to conduct meetings, training or workshops
17. Using recycled biodegradable contents such as paper, napkins, tissue, and trashcan liners
18. Always look for eco-labels whenever making purchasing decisions
19. Eliminates disposable items in campus
20. Joins green task forces with green agenda within educational association
21. Have clear, measureable, specific green goals and objectives
22. Have written communicative green mission statement
23. Consistently implement green regulations and policies
24. Have open-for-public emission footprint report
25. Have certified green label

FINDINGS AND ANALYSIS

After data gathering is completed, two ways are used to identify the highest ranked attributes:

- ✓ Based on both average of importance rating (first number in bracket) and percentage frequency of two highest rating scale (5 and 6) for each attribute on second number in bracket.
- ✓ Based on top three most important attributes statement, which was then been weighed to differentiate between attributes (third number on bracket). Overall frequency of attribute mentioned in top three are also considered and mentioned on fourth number in the bracket.

According to all quantitative results, five attributes below were consistently top ranked in both methods, compared to other attributes.

1. Using high-efficiency bulbs instead of existing conventional lightbulbs (5.09, 75.00%, 8.33%, 19)
2. Consistently implement green regulations and policies (5.04, 72.37%, 8.77%, 20)
3. Also use electronic versions of marketing or publication materials and posted into website (5.00, 73.68%, 8.77%, 20)
4. Using recycled biodegradable contents such as paper, napkins, tissue, and trashcan liners (4.96, 72.37%, 7.46%, 17)
5. Shifted periodic paper mailings and postage into internet media communications (4.87, 72.37%, 4.39%, 10)

Based on the results, Gen. Y in SBM-ITB tends to intend efficiencies in life, including one of their most needed thing, the lighting. What they think first for becoming greener is efficiency in their most easily remembered and vital part of life.

Generation Y have quick tendency to challenge marketing practices they deem to be untruthful or inconsistent [6],

making them demand consistent actions of green marketing through good implementation of regulations and policies.

Using electronic versions of marketing or publication materials and posted into website are clearly being important to Gen Y. In most study, it was stated they are very sensitive and communicative with social media network, website and internet exposure.

The understanding of Generation Y to human as the cause of global warming and climate change, affects their daily behavior and basic need of paper, tissue, napkins, and liners into using recycled biodegradable contents.

The tendency to media communications through computer does also makes them want to change their periodic routine actions such as paper mailing and postage into a simpler one, which is the internet.

Furthermore, in addition to top five most chosen attributes above, there were five other attributes that were either included in top list of first or second method: eliminates disposable items in campus; Use scanners and PDF formatting to digitize hard copy data for future use and distribution; have written communicative green mission statement; provided safe, accessible bike racks that encourages biking; and using computer software with automatic ON/OFF application on idle times.

CONCLUSION

The key findings resulted that Gen Y indicated consistent intention statements towards five important attributes: **using high-efficiency bulbs instead of conventional one; consistently implement green regulations and policies; use electronic versions of marketing or publication materials, posted to website; using recycled biodegradable contents (paper, napkins, tissue, trashcan liners); and shifted periodic mailings and postage to internet media communications.**

Understanding key green marketing attributes that increase intention to Generation Y will help educational organization to prepare their school branding. This suited strategy will give the business school competitive advantages. Therefore business school leaders must find which attributes are in their strengths and opportunities and market it well to students. Organization could start considering changes in management. Otherwise, they could lose the opportunity of making sustainable future.

REFERENCES

- [1] Charter, M., Peattle, K., Jacqueline Ottman., and Polonsky, M. Marketing and Sustainability, 2008. Sustainable Marketing Knowledge Network.
- [2] Gore, Al. Our Choice: A Plan To Solve The Climate Crisis, 2009. Bloomsbury.

- [3] Grant, John. The Green Marketing Manifesto, 2006. Emerald Publishing Journal, 25-27.

- [4] Haytko, Diana and Matulich, Erika. Green Advertising and Environmentally Responsible Consumer Behaviors: Linkages Examined, 2009. Journal of Management and Marketing Research.

- [5] Kaplan, Jennifer. Greening Your Small Business: How to Improve Your Bottom Line, Grow Your Brand, Satisfy Your Customers-and Save the Planet, 2009. Jennifer Kaplan.

- [6] Ottman, Jacquelyn. The New Rules of Green Marketing: Strategies, Tools, and Inspiration for Sustainable Branding, 2011. Berrett-Koehler Publishers.

- [7] Sitarz, Daniel. Greening Your Business: The Hands-On Guide to Creating A Successful and Sustainable Business, 2008. Earthpress.

- [8] Wulansari, Fatma Dewi Vidiastih. Identification of Important Organizational Attribute Which Affects Workplace Preference of Generation Y: Preliminary Study in Indonesia, 2010. Pan Pacific Business Association Journal.

“The Effect of Eco Friendly Advertisement on Consumers’ Perceived Quality and Brand Image”

Case Study: “1 Liter of AQUA Provides 10 Liter Health and Clean Water” Campaign

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ABSTRACT

Eco friendly advertisement as social advertising program also is a part of value based marketing strategy, which as one of company’s strategy to achieve sustainable profit yet provides positive contribution for human society. AQUA is a pioneer and also market leader of bottled mineral water product in Indonesia. To maintain and strengthen its position, AQUA advertises its Corporate Social Responsibility (CSR) program with “1 Liter of AQUA Provides 10 Liter Health and Clean Water” campaign that intended to increase Indonesian children’s welfare through water and sanitation infrastructure and healthy living coaching. The AQUA’s advertising gives information to consumer, which by buying 1 liter AQUA means in the same time consumer, will contribute to provide 10 liter health and clean water in underdeveloped areas in Indonesia.

Problems and questions occurred about the effectiveness of this advertisement strategy. This paper used explorative method through theoretical reference and practical studies which supported by questionnaires and interviews. Using frequency analysis the effect of this advertising on consumers’ perceived quality and brand image AQUA is measured.

Based on resulted analysis, consumers give positive perceived quality and brand image respond to this advertisement strategy, and also give a positive value on the strata of society about the value of life. These findings made this campaign successfully strengthen brand of AQUA and influence consumers to buy more AQUA. This paper will provide suggestions for other leader companies to implement eco friendly business strategy which profitable and also make a better future for this beautiful world.

INTRODUCTION

Marketing is now a battle of perception, and build this perception can be done through a strategy of brand image to strengthen the brand of a product. The global trend toward sustainable growth for a business is preserving the natural environment and being socially responsible to the community. Compare to general advertising, actually eco friendly advertising was new strategy implemented

in Indonesia’s marketing world. This research addressed the effect of Corporate Social Responsibility Program as eco friendly advertising on consumers’ perceived quality and brand image. The overall aim of this paper is to examine the brand image developed by advertisement of eco friendly factors included social responsible activity on consumers’ perceived quality. Then, the research questions can be formulated as follow:

1. How is consumer perception about “1 Liter of AQUA Provides 10 Liter Health and Clean Water” Advertisement?
2. Is this kind of Corporate Social Responsibility advertisement positively affected to consumers affected to consumer’s intention to buy?

The scope area of this research was just within Bandung area as one of big cities in Indonesia with unique and various demographic has made interesting to do the research in.

LITERATURE REVIEW

Perceived Quality

How do consumers perceive quality? According to Ophuis and Trijp (1996), the perceived quality depends on the judgments by the consumers, likes an attitude. It is the result of a perception process. The quality evaluation may be based on previous experience by the consumer or on credence (Brunso et al., 2002; Anderson & Anderson, 1991; Grunert, 2005; Holm & Kildayang, 1996), Steenkamp (1989) suggested that perceived quality plays an important role in making decision processes of the consumer, like mediator. Because consumers differ in their perceptual abilities, personal preferences, and experience level, then perceived quality must be considered as a variable.

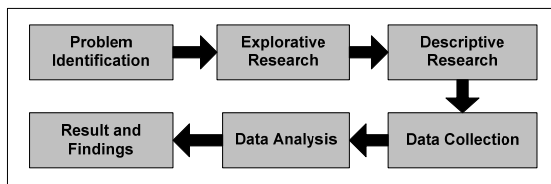
Brand Image

Keller (1993) defines a brand image as an association or perception consumers make based on their memory toward a product. Thus, brand image does not exist in the technology, features or the actual product itself, but is something brought out by promotions, advertisements, or users. Through brand image, consumers are able to recognize a product, evaluate the quality, lower

purchase risks, and obtain certain experience and satisfaction out of product differentiation. According to Grewal, Krishnan, Baker, and Borin (1998), the better a brand image is the more recognition consumers give to its product quality. Akaah and Korgaonkar (1998) conclude that consumers are more likely to purchase well-known brand products with positive brand image as a way to lower purchase risks. This argument is also supported by Rao and Monroe (1998) that a brand with a more positive image does have the effect of lowering consumers' product perception risks and increasing positive feedback from consumers. Therefore, consumers generally believe they can make a satisfying purchase by choosing well-known brands also lower any purchase risks by doing so.

RESEARCH METHODOLOGY

The flow of research method is presented below :



Figures 1. Research methodologies

A descriptive and qualitative study method is applied to gain insight. Data is collected through 350 respondents' questionnaire to the AQUA consumers. A protocol for the questionnaire is prepared prior to data collection.

DATA ANALYSIS

Table 1. Respondent Demographics

Demographic	Items	Percentage
Gender	Male	57.70%
	Female	42.30%
Age	15 - 24	53.10%
	25 - 34	18.60%
	35 - 44	12%
	>44	16.30%
Occupation	Student/college	50%
	Employee	13%
	Entrepreneur	12%
	Housewife	21%
	Others	4%
Educations	Elementary School	19%
	Junior High School	17%
	Senior High School	48%
	Bachelor	13%
	Master	2%
Respondent Know CSR	Yes	53.40%
	No	46.60%

RESULTS AND FINDINGS

Table 2. Mean Recapitulation Results

Variables	No	Dimensions	Mean
Quality of Advertisement	1	AQUA's Advertisement, "1 Liter of AQUA Provides 10 Liter Health and Clean Water" is an interesting advertisement	3.71
	2	AQUA's Advertisement, "1 Liter of AQUA Provides 10 Liter Health and Clean Water" is a unique advertisement	3.65
	3	AQUA's Advertisement, "1 Liter of AQUA Provides 10 Liter Health and Clean Water" is easy to understand	3.82
	4	AQUA's Advertisement, "1 Liter of AQUA Provides 10 Liter Health and Clean Water" is better than AQUA's previous Advertisement	3.8
	5	AQUA's Advertisement, "1 Liter of AQUA Provides 10 Liter Health and Clean Water" is better than others mineral bottled water product's Advertisement	3.95
Brand Image	6	AQUA's Advertisement, "1 Liter of AQUA Provides 10 Liter Health and Clean Water" is representing AQUA's new image	3.61
	7	AQUA's Advertisement, "1 Liter of AQUA Provides 10 Liter Health and Clean Water" is representing AQUA's better image of AQUA	3.83
	8	AQUA's Advertisement, "1 Liter of AQUA Provides 10 Liter Health and Clean Water" as a product of a company which care to society	3.98
	9	AQUA's Advertisement, "1 Liter of AQUA Provides 10 Liter Health and Clean Water" as the best bottled mineral water product	3.81
	10	AQUA's Advertisement, "1 Liter of AQUA Provides 10 Liter Health and Clean Water" differentiates and place AQUA over others bottled mineral water product	3.92
Effect of Advertisement	11	AQUA's Advertisement, "1 Liter of AQUA Provides 10 Liter Health and Clean Water" touch my heart	3.37
	12	AQUA's Advertisement, "1 Liter of AQUA Provides 10 Liter Health and Clean Water" make me care to society	3.85
	13	AQUA's Advertisement, "1 Liter of AQUA Provides 10 Liter Health and Clean Water" makes me interested to buy AQUA	3.73
	14	AQUA's Advertisement, "1 Liter of AQUA Provides 10 Liter Health and Clean Water" becomes a strong reason why I choose and consume AQUA	3.74

CONCLUSION

These are some conclusions related with Research Question 1 (How is consumer perception about "1 Liter of AQUA Provides 10 Liter Health and Clean Water" Advertisement?):

- Consumers perceived the advertising of Corporate Social Responsibility of AQUA “1 Liter of AQUA Provides 10 Liter Health and Clean Water” as good quality advertisement.
- Consumers perceived the advertisement “1 Liter of AQUA Provides 10 Liter Health and Clean Water” as interesting (**mean = 3.71**), unique (**mean = 3.65**), and easily to understand (**mean = 3.82**) advertisement.
- Consumers perceived advertising of AQUA’s Corporate Social Responsibility “1 Liter of AQUA Provides 10 Liter Health and Clean Water” as better advertisement than AQUA’s previous advertisement (**mean = 3.80**), and it also better than others bottled mineral water product advertisement (**mean = 3.95**).
- Consumers perceived the advertisement “1 Liter of AQUA Provides 10 Liter Health and Clean Water” as an advertisement which is success to strengthen its image, making a brand that is better, different, and making difference to the consumer.
- The advertisement make consumers feel the new and better image of AQUA (**mean = 3.83**), which is as product of “Social Company” which cares to the society (**mean = 3.98**). By achieving this, consumers also perceived AQUA as the best bottled mineral water product far above its competitors (**mean = 3.92**).

Moreover, the result of this research also show that this kind of advertisement success to influence consumers care to their society (**mean = 3.85**)

These are some conclusions related with Research Question 2 (Is this kind of Corporate Social Responsibility advertisement positively affected to consumer’s intention to buy?)

- The advertisement “1 Liter of AQUA Provides 10 Liter Health and Clean Water” makes AQUA’s consumers interested to buy AQUA (**mean = 3.73**)
- The advertisement becomes a strong reason why consumers choose AQUA, and gives huge and significant effects towards consumer’s intention to buy AQUA (**mean = 3.74**)

RECOMMENDATION

These are some recommendations for AQUA :

- Advertise its Corporate Social Responsibility is a good strategy to strengthen AQUA position among competition with competitors. In the future advertise another AQUA’s Corporate Social Responsibility program can classify as a good optional marketing strategy. Its indicates that actually, in the future AQUA still can develop its Corporate Social Responsibility advertising to catch more loyal consumer and boost its sales.
- The goal Advertising of Corporate Social Responsibility is a sustainable profitability company. In the way of achieving that goal, the company must get the consumers compassion, so they will act as loyal consumer to the product. “1 Liter of AQUA Provides 10 Liter Health and Clean Water” is good interesting, unique, making a brand that is better, different, and making difference to the consumer.

Keywords : *Eco Friendly, Advertisement, Social Advertising, Consumer Perceived Quality, Brand Image, Corporate Social Responsibility, AQUA*

REFERENCES

- [34] Keller, Kevin Lane. Strategic Brand Management: Building, Measuring, and Managing Brand Equity (3rd ed). Pearson International Edition, 2008
- [2] Schiffman, Leon G & Leslie Lazar Kanuk. Consumer Behavior (9th ed). New Jersey: Pearson Prentice Hall, 2007
- [3] Malhotra, Naresh K & Mark Peterson. Basic Marketing Research, A Decision Making Approach (2nd ed). Pearson International Edition, 2006
- [4] Grillo, Nick., John Tokarczyk, & Eric Hansen. Green advertising developments in the U.S. forest sector: A follow-up. Forest Products Journal, May 2008, pg. 40
- [5] Lin, Nan-Hong., Bih-Shya Lin. The Effect of Brand Image and Product Knowledge on Purchase Intention Moderated by Price Discount. Journal of International Management Studies, August 2007, pg. 122
- [6] Xuan, Bui Bich. The Role of Perceived Quality, Ambivalence and Health Involvement as a basis for clustering – A study of fish consumption in Vietnam. Master Thesis Nha Trang University, pg. 22

α' [] are the two most possible present values of the investment costs and they are located between interval

$[x_1, x_2]$. $(x_2 + L^-)$ is the upward potential while $(x_1 - \alpha^-)$ represents the downward potential of the present value of the investment costs.

Based upon the above discussions, this study proposes the following formula for the value of fuzzy real options (FROV):

$$\text{FROV} = S_0 e^{-\alpha T} N(d_1) - X e^{-rT} N(d_2)$$

Where,

$$d_1 = \frac{\ln\left(\frac{E(S_0)}{E(X)}\right) + (r - \delta + \frac{\sigma^2}{2})T}{\sigma \sqrt{T}}$$

$$d_2 = d_1 - \sigma \sqrt{T}$$

In the above formula, $E(S_0)$ represents the fuzzy mean value of the present value of the expected cash flow and $E(X)$ is the fuzzy mean value of the investment costs. $\sigma^2(S_0)$ represents the fuzzy variance of the present value of the expected cash flow. Lastly, below is the formula that calculates the value of fuzzy real option for trapezoidal fuzzy number:

$$\text{FROV} = (s_1, s_2, \alpha, \beta) e^{(-\delta T)} N(d_1) - (x_1, x_2, \alpha^-, \beta^-) e^{(-rT)} N(d_2)$$

Formula (1)

4. Numerical Examples: Evaluation of RFID Investment using Fuzzy Real Option

"Company XYZ is a manufacturing company and provides items to Wal-Mart. At present, XYZ produces three Class items (A, B, and C). In 2010, the CEO of XYZ considers RFID investment of pallet level tagging of Class "B" items in compliance to Wal-Mart's mandate. For that, he estimated costs and benefits of the RFID investment as follows: the initial investment of hardware is \$100,000, that of software is \$100,000, and that of labor and training is \$10,000 respectively. The expected benefits from the investment are \$30,000 (inventory reduction) and \$20,000 (labor reductions and shrinkage reduction) respectively. The expected costs and benefits, however, can be changed according to investment situations. In this paper, we would like to analyze this case by comparing the traditional real option approach and fuzzy real option approach under three scenarios. The exact numbers are represented in Table 1.

We use a hypothetical case of RFID investment valuation using growth opportunity options, which is one of the real options, to demonstrate the benefits of application of real option for IT investment. First, we consider a European call option with rights (not obligations) to purchase stock at the exercising price at maturity. RFID investment is very similar to the European call option in the sense that the execution of RFID applications provides a company opportunities (not obligation) to acquire benefits from the applications (underlying assets) when it invests certain expenses (exercise price) at a specific time of execution (maturity). NPV of RFID investment using the European call option is calculated as follows:

Expanded NPV = (NPV of expected cash flow) + (Option premium)

Applying the above formula to RFID cases as follows:

Value of executing RFID application =
(NPV of RFID application only on group 'B' products at pallet level in warehouse)

+ (Option value in case of expansion of RFID application to individual product level on group "B" products)
+ (Option value in the case of expansion of RFID to entire products)

If only investment at the initial time (T=0) is considered and real options are not introduced, NPV has negative values as shown in Table 1, and the company decides not to invest on RFID application.

<TABLE 1>

Now, let us calculate the option value using Black-Scholes model, assuming that there is a chance of additional expansion of investment. The expanded NPV will have a positive value as option value (option premium) is added to NPV. Below is the calculation of fuzzy real options value using Black-Scholes model and expanded NPV after the present value of expected cash flow and investment costs are considered fuzzy numbers. The basic data for the calculation is assumed as follows:

S_0 = Present value of expected cash flow from the expansion of the investment
= (\$700,000, \$800,000, \$50,000, \$50,000)

X

= (\$990,000, \$1,010,000, \$10,000, \$10,000)

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First, the mean $E(S_0)$ and standard deviation $\sigma^2(S_0)$ of S_0 , the present value of expected cash flow of investment expansion, are calculated as follows:

$$E(S_0) = \frac{s_1 + s_2}{2} + \frac{\beta - \alpha}{6} = \$750,000$$

$$\sigma^2(S_0) = \frac{(s_2 - s_1)^2}{4} + \frac{(s_2 - s_1)(\alpha + \beta)}{6} + \frac{(\alpha + \beta)^2}{24} = \$67,700$$

Thus, $\sigma(S_0) = 67,700/750,000 = 0.09 = 9\%$

Next, the mean of investment costs is calculated as follows:

Using the values calculated above, $N(d_1)$ and $N(d_2)$ are calculated as follows:

$$N(d_1) = N\left(\frac{\ln(750,000/1,000,000) + (0.065 + 0.09^2/2)A?5}{0.09A?\sqrt{5}}\right) = 0.612$$

$$N(d_2) = 0.612 - 0.09A?\sqrt{5} = 0.411$$

Thus, by formula (1), the fuzzy real options value is as follows:

$$FROV = (\$129,073, \$196,256, \$33,591, \$33,591)$$

Considering investment costs only, NPV is negative (-\$150,000) and it is not desirable to invest on RFID technology. However, considering the expansion of investment using the value of fuzzy real option, expanded NPV could be a positive number.

$$(\$196,256 - \$150,000) = \$46,256$$

We further analyze an optimistic and a pessimistic scenario for investment costs in fuzzy real option.

$$\begin{aligned} X_1 &= (\$1,010,000, \$1,110,000, \$18,000, \$2,000) \\ FROV_1 &= (\$110,994, \$182,339, \$28,806, \$26,372) \\ X_2 &= (\$890,000, \$910,000, \$2,000, \$18,000) \\ FROV_2 &= (\$166,304, \$253,849, \$47,175, \$40,371) \end{aligned}$$

Through the same calculation process of calculation of fuzzy real options values in Scenario 1 and Scenario 2, the expanded NPV is as follows when considering expansion of investment:

$$\begin{aligned} \text{Scenario 1 } (\$182,339 - \$150,000) &= \$32,339 \\ \text{Scenario 2 } (\$253,849 - \$150,000) &= \$103,849 \end{aligned}$$

Table 2 is a summary of the results of the above analyses, which shows not only the results of the original scenario but also the two scenarios with adjustment of investment costs.

<TABLE 2>

In Table 2, scenario 1 has the same expected cash flow as the original scenario and scenario 2, but assumes excessive RFID investment costs compared to other scenarios. The result shows that the expanded NPV may still be positive (\$182,339-\$150,000=\$32,339).

5. Conclusions

In this study, we demonstrate how to apply the fuzzy real option to evaluate the RFID investment scenarios. Investment projects of advanced IT such as RFID inherit high risks and options such as delay, abandonment, reduction, and expansion should be measured and included in the investment valuation process. The fuzzy real options model presented in this study should be a useful tool for such purposes.

Reference will be provided by request

Tables

Table 1: NPV for initial investment

Initial investment costs (T=0)	Present value
Hardware	100,000
Software	100,000
Labor force	10,000

Education	10,000
Sum total	220,000
Profits (T=0)	
Inventory reduction	30,000
Labor force reduction	20,000
Shrinkage reduction	20,000
Sum total	70,000
NPV	-150,000

Table 2: The results of numerical example and further analysis

Variables	Numerical example	Scenario 1	Scenario 2
S_0	\$700,000~800,000	\$700,000~800,000	\$700,000~800,000
X	\$990,000~1,010,000	\$1,010,000~1,110,000	\$890,000~910,000
T	Five Years	Five Years	Five Years
r	6.50%	6.50%	6.50%
NPV	-\$150,000	-\$150,000	-\$150,000
$FROV$	\$129,073~196,256	\$110,994~182,339	\$166,304~253,849

Figure

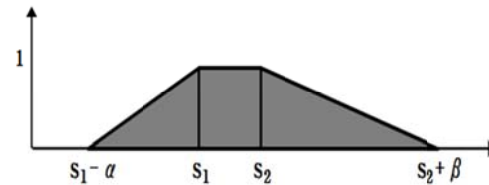


Figure 1. The distribution of possibility of the current value of the expected cash flow

Using RFID for Inventory Management in Automobile Companies

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ABSTRACT

This paper discusses improvements in inventory management brought about by the implementation of RFID technology in the automobile manufacturing industry. It can be said that RFID technology has affected almost every company in every industry. Many automobile companies have implemented RFID technology for supply chain management, inventory management, production processes, and more. Successful RFID implementation efforts often result in improved productivity, reduced processing times, increased supply chain visibility, improved precision and flexibility, and more.

INTRODUCTION

The implementation of RFID technology has caused companies to rethink the way they do business, allowing them to reduce labor costs, improve efficiencies, improve quality, reduce process times, and more. Many automobile companies such as Ford, Volkswagen, and BMW have implemented RFID technology throughout their supply chains, production processes, and inventory management functions. These efforts are paying off considerably. One company in particular, Glovis, a subsidiary of Hyundai Motor Group, has deployed RFID in its global supply chain management and inventory management systems with great success.

RADIO FREQUENCY IDENTIFICATION

Radio frequency identification (RFID) is similar in function to bar code identification systems. However, RFID has been used to replace UPC (Universal Product Code) and other manual systems in the area of inventory management. Most RFID systems consist of three main components, a tag, a reader, and a computer system (Fink and Gillett, 2007). These components are used together to share data regarding particular attributes of the items being tracked by the system. This can include location, arrival/shipment

time, serial numbers, or any other information one wishes to associate with any particular tag and the item to which it is affixed. Each RFID tag has its own unique ID number and can be attached to almost anything. The use of RFID tags to track inventory is similar to traditional electronic tabulation systems, except that RFID systems are wireless. RFID tags employ a radio-frequency transmitter to enable the physical tracking of the tag, along with whatever the tag is attached to, through all stages of production and the logistics operations that follow. A centralized database stores information regarding the specific inventory or production item that the tag is attached to, along with the unique ID number of the RFID tag itself. Mating this information together allows the RFID system to deliver information more efficiently to those that need it than bar coding allowed, while offering much greater data storage. At any given point in a production or logistics channel, a reader can be used to interrogate nearby tags. The RFID tag responds to the reader with its unique ID number, which is then used to query a centralized database for more information. Unlike similar systems that use bar codes affixed to inventory items, which must be scanned individually, some RFID systems can concurrently identify and track over 1,000 tagged items per second (Lin and Brown, 2006). The successful implementation of effective RFID systems changes numerous business processes, such as inventory. Once RFID is in place, physical inventory procedures change, contingent upon the design of the particular RFID system being used. For systems in which readers are positioned to be able to read all tags currently in use, tabulation becomes automatic and typically requires little human intervention, if any. RFID tags have also been used to improve quality control.

Researchers have studied the impacts of RFID on numerous types of organizations including manufacturing, distribution, transportation, and retail

businesses. There are a number of advantages to using RFID technology for businesses and they have been well stated: improving productivity, reducing processing times, and increasing supply chain visibility. RFID offers improved precision, flexibility, and potential cost savings in a wide range of businesses and public entities. One of RFID's most important advantages over the use of bar codes is its use of electronic signals that are generated and read without removing the items being scanned from sealed shipping cartons (Davis and Luehlfig, 2004). Time-consuming inventory counting operations, for example, are often no longer required. RFID provides the advantages of reducing or eliminating inventory labor, delays in recording inventory movements, inventory recording inaccuracies, and more. It also typically allows for accurate real-time inventory monitoring with little or no additional cost. Such advantages lead to direct benefits in cost reduction. Systems that rely on portable readers have a similar labor cost with regard to reading the tags, but it will be far less than counting every item by hand. RFID enabled inventory systems, in some cases, have been known to improve accuracy by about 13%, reducing unnecessary inventory significantly (Johnson, 2008). This allows companies to achieve high stock accuracy and thereby an improved supply of goods.

RFID also promises full supply chain visibility and a means to transfer complete product data across an end-to-end business network, which in turn gives businesses the capability of tracking individual inventory units throughout entire supply chains in real time. Access to immediate and accurate information such as this allows companies to ensure delivery of the right products to the right locations at the right times. Visibility of inventory information is a central aspect in the subject of the value of information supply chains (Lee *et al.*, 2009). The potential benefits of RFID because of this transparency throughout the supply chain network are greater efficiency and lower costs. RFID promises highly automated, paperless inventory systems. RFID systems, when properly implemented and coordinated throughout the supply chain, enhance the efficiency of supply chain management, customer relationship management, and general business processes in many operational settings. Eliminating manual inventory counting, reducing costly mistakes, and improving the monitoring of inventory are the important benefits of RFID for inventory management. However, RFID systems can help to provide better information when addressing customer inquiries. RFID delivers significant increases in productivity, reduces labor costs, and enhances information available for decision-making. With properly designed systems and internal controls, fewer recording errors occur. The reengineering of business systems to integrate RFID inventory tracking with transaction processing promises even more accurate and timely costing of inventories as well as more efficient logistics, storage, and retrieval procedures (Stambaugh and Carpenter, 2009).

RFID has affected almost every large and mid-size company in many industries. More and more organizations are deploying RFID for a wide variety of business purposes. One of the earliest adoptions of RFID was as toll-collection tags on some highways. Livestock, as well as household pets, are monitored by RFID tags attached to the animals in the agriculture industry (Crowell, 2006). Wal-Mart and other large retail companies have adopted this technology as well. Wal-Mart is requiring its many of its suppliers to apply RFID tags to items prior to delivery. Similarly, many companies are considering requiring their suppliers to place RFID tags on all individual inventory items. Airline companies have been using RFID tags to track passengers' baggage. RFID has been used for purebred animal identification, tracking movement of beer kegs and rolls of paper, and even in automobile antitheft systems (Poirier and McCollum, 2005). The automotive industry has also been using RFID systems to track and control major sub-assemblies within production facilities. For example, one Ford engine plant in Canada deployed RFID in quality control of its product, Nissan America has also been using RFID for automating its delivery system, and one Volkswagen factory is using RFID for inventory management. Since 2006, Hyundai Motors Group has been working to integrate RFID technology throughout their global logistic information system in order to lower inventory and logistics related costs.

DISCUSSION

Many automotive companies are considering reengineering their legacy inventory management systems to take advantage of RFID technologies. Glovis Alabama, a subsidiary of Hyundai Motor Company America, implemented RFID for finished product inventory management. Once a car leaves the production facility, it is placed in a stock storage area similar to a large parking lot, where an RFID tag is attached. When a finished car is placed in the lot, a reader reads the RFID number and information about the unit is captured to include the lot space that the car is located in, the car's specific information such as type, color, options, and production date, VIN number, etc. This information is then transmitted to an inventory management system wirelessly. When a particular car is to be retrieved from inventory, a worker locates the car in the system database by searching for particular attributes such as color and model. The system then provides the inventory location information and displays the location visually. Glovis Alabama improved its inventory management system by reengineering their existing system to include RFID technology. The biggest benefit coming from such a RFID implementation is reduced labor costs. Before implementing this technology, 17 workers were involved in this portion of inventory management. Now, only three workers are required for the same task. Glovis has also reduced process times required for placing and retrieving finished cars to and from inventory, and has improved its inventory processing accuracy. Through our case study, we

can conclude RFID technology allows companies to reduce costs and process times, improve accuracies and efficiencies, and increase productivities.

Our ongoing research and analysis of this case study will result in an update with more numerical information in the future.

RERERENCES

- [1] Barlow, R. Doing More with Less: Redefining Inventory Organization, Healthcare Purchasing News, Nov 2008, 32 (11). 10 -14
- [2] Crichton, K. RFID Keeps Inventory Moving, Manufacturers' Monthly, May 2009, 73-74
- [3] Crowell, D. and McCollum, T. The RFID Revolution, Internal Auditor, Oct 2004, 61 (5), 31-34
- [4] Davis, H. and Luehlfling, M. Radio Frequency Identification: the Wave of the Future, Journal of Accountancy, Nov 2004, 198 (5), 43-49
- [5] Fink, R. and Gillett, J. Will RFID Chang Inventory Assumptions?, Strategic Finance, Oct 2007, 89 (4), 35-39
- [6] Johnson, A. RFID Technology and the Supply Chain, Manufacturers' Monthly, Jun 2008, 22-24
- [7] Lee, Y. Feng, C and Yin, T. A Quantitative View on How RFID Can Improve Inventory Management in A Supply Chain, International Journal of Logistics: Research Applications, Feb 2009, 12(1), 23-43
- [8] Lin, P. and Brown, K. Radio Frequency Identification and How to Capitalize on It, CPA Journal, Jul 2006, 76 (7). 34-37
- [9] Lin, P. and Brown, K. RFID Deployment, CPA Journal, Aug 2008, 78(8), 68-71
- [10] Markelevich, A and Bell R. RFID the Changes It will Bring, Strategic Finance, Aug 2006, 88 (2), 46-49
- [11] Merritt, K. Can RFID Effectively Track Inventory?, Frontline Solutions, Nov 2001, 2 (12), 66
- [12] Poirier, C. and McCollum, D. RFID: Strategic Implement and ROI, J. Ross Publishing, 2005, Fort Lauderdale, Florida.
- [13] Power, D. RFID Aids Inventory Control at Wal-Mart, Women's Wear Daily, 2006, 191 (113), 27
- [14] Stambaugh, C. and Carpenter, F. RFID, Strategic Finance, Dec 2009, 91 (6), 35-40

The Remaining References Available Upon Request

The Characteristics in Korea ICT Industry's Entry Barriers

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ABSTRACT

As ICT Market reaches the saturation point and competition among companies are intensified, the necessity of studying ICT market entry barriers has been increased. However, the previous studies of ICT were mainly focused on the customers' behavior, but not much on the study of Survival strategies of ICT companies. Even though some studies have dealt with factors required for survival, the quantitative studies on the market entry of ICT companies have had low limits with statistical methodology based studies.

Thus, in order to complement those limitations from the previous studies, this study examined the overall characteristics of ICT market entry barriers and individual companies' market dominance strategies by simulating the real trends of companies' market entry at ICT market by using bass diffusion model.

The main findings of this study is that in the early stage of ICT market, the entry barrier is very high, but it becomes lower as the market expands, and the general characteristics of ICT market follows the characteristics of ICT services companies. Especially, in the case of the ICT manufacturing industry, swing effect, bandwagon effect, and winner-takes-all-situation occurs highly, while it has been found that those of ICT service business are very low. The results are considered to contribute to establishing the accurate market dominance strategies of ICT as being used as the main data to consider the factors and the current state of the ICT market entry barriers when companies that have already entered the ICT market and startup companies that want to enter the market try to establish the market domination strategy.

I. Introduction

Verification of whether an entry barrier exists in a particular market or not, and of how strong entry

barrier is in ICT market compared to other markets is needed to be studied in order to confirm the market power of the companies. Thus, depending on the level of the entry barriers and the major type of businesses, regulation policy for government authorities, continuous revenue model for entrepreneurs and the successful settlement for new ICT companies may vary. Since far different results come depending on the different market domination strategies run by ICT companies, it is important to specifically investigate the entry barriers of ICT market and factors that make difference.

This study aims to draw implications on regulation policy for government authorities and market dominance strategies for ICT companies by examining the quantitative evaluation of ICT market, which has already reached the saturation but still has fast paced technological innovation.

II. Literature Review

Market entry barriers

Studies on market entrance barriers have started primarily from the economics field in 1950's. Although there is no compromised definition for the 'market entrance barriers', it can be classified into two. First, the definition based on the difference of stable profits made by existing companies. The second definition is derived from the differences of production costs between the newly entering companies and the existing companies.

Thus, with the market entry barriers defined in various ways, McAfee et al. recently attempted to categorize the market entry barriers into four different concepts. First, the economic barrier is a concept of the difference in costs, and expense or time that startup companies have to pay, but not for the existing companies. Second, the antitrust barrier is not only the economic barrier, but also all the obstacles that delay the market entry. Also, According to independent occurrence of market entry

barriers, Standalone Barrier and Ancillary Barrier are separated.

Determinants of market entry barriers

In general, the market entry barriers are regarded as the existing companies' advantage over startup companies or startup companies' additional production costs to enter the market. These determinants are economies of scale, cost advantages, switching costs, information superiority, and so on. Bain explains how economies of scale affects the startup businesses by introducing the percentage effect and the absolute capital requirement effect. The percentage effect is a concept related to new businesses' barriers that they minimize the average production cost through mass production. The absolute capital requirement effect is a concept related to barriers that there are costs generated in procuring the capital and highly qualified workforce.

Technological innovation activities

The higher utilization of Technological innovation activities for the market exists, the more positive results of these innovative activities affect the company's scale and market share. In particular, ICT market that takes advantages of using new technologies has very active technological innovation activities. This finding may directly affect the company's scale and market share. Furthermore, with the increased opportunities of using new technologies as the results of active technological innovation activities, companies can monopolize the market.

The characteristics of manufacturing and service industries

In the field of economics, objects to sell and buy are classified into goods and services. And the industry that produces goods is called manufacturing industry, while the industry that produces the intangibles is called service industry. Especially, the service industry not only creates the value added in the intangibles but also affects the creation of the value added in the manufacturing industries. With this difference, Howells examines the differences in characteristics depending on intellectual property, product characteristics, and innovation cycle.

III. Research Methods

Bass diffusion model

Bass diffusion model has been employed to forecast demands and find diffusion pattern in the

previous ICT research. Bass diffusion model predicts specific technologies or products' adoption in S-shaped curve. S-curve identifies the cause of innovation effect and imitation effect, and the patterns of the peak and the decline of diffusion, and it has been used to estimate how much competitiveness the latest products have in similar markets until nowadays. In this study, we expand the target of Bass analysis to companies in market and examine companies' diffusion pattern.

Bass developed a growth model for determining the timing of the initial purchases of new products. The effects of innovation and imitation are suggested in his model. The Bass model can be stated as:

$$\frac{dN(t)}{dt} = [p + qN(t)] + [m - N(t)]$$

Where $N(t)$ is the cumulative number of adopters at time t , m is the number of potential adopters of the innovation, p is a non-negative constant (usually defined as the coefficient of external influence), and $dN(t)/dt$ is the first derivative of $N(t)$ representing the rate of diffusion at time t . Bass defines p as the coefficient of innovation and q as the coefficient of imitation.

Date collection

We collected data of foundation date for ICT manufacturing companies and ICT service companies from the database of Financial Supervisory Service (<http://dart.fss.or.kr>) in Korea. The data is classified into two categories: ICT manufacturing, and ICT services. ICT manufacturing companies are in regard to electronic devices, computers, videos, audio, and equipment for communication. ICT service companies are in relation with publication, videos, broadcasting communications, and information service. Among these, the printing and publishing-related businesses in ICT services were excluded because they are less relevant to ICT market. We chose the data of NON-ICT market as the data of the automobile market in Korea which can be typified as one of the traditional NON-ICT market. Data of manufacturing of automobile and trailer is selected for NON-ICT manufacturing industry, and data of sales of automobile and component is chosen for ICT service industry.

IV. The Simulation Results

Market entry barriers of ICT market and NON-ICT market

ICT market reaches a certain point of time as the market forms, the new companies' participation to the market increases abruptly. On the other hand, for NON-ICT market, the new comers are not as much as ICT and their entries grow gradually.

Entry barriers in manufacturing and service companies

The manufacturing industry has high innovation effect while service industry has high imitation effect. In the manufacturing industry for both ICT market and NON-ICT market, the entry barriers have not been high, but as the market becomes activated, entry barriers become high. ICT market is based on the specific equipment (e.g., mobile device) as well as NON-ICT market. In other words, it is an industry that creates a variety of intangible services based on various devices such as PC, mobile phones, and so on. When we distinguish manufacturing industry and service industry with these similarities in the NON-ICT market, it shows the similar level of entry barriers.

However, the gap between manufacturing and services in ICT market and NON-ICT market is similar, but there is a big difference regarding overall entry barriers.

Market entry barriers for service and manufacturing companies in the ICT market

Both markets have high initial entry barriers, but the entry barriers become low with market activation. However, in ICT manufacturing businesses, the entry barriers after the market activation are lower than NON-ICT market. The service companies in ICT market have lower entry barriers and they are placed in more competitive situation. In other words, due to the short life cycle of products in ICT market, startup companies can easily enter the market although there still are potential competitors.

REFERENCES

- [1] Bain, J. Barriers to new competition. Harvard Univ. Press, 1956.
- [2] Clemons, E.K., Reddi, S.P., and Row, M.C. The impact of information technology on the organization of economic activity: The move to the middle hypothesis. Journal of Management Information Systems, 10, 2 (1993), 9-35.
- [3] Howells, J. The nature of innovation in services. Innovation and productivity in services (2001), 55-79.
- [4] Mahajan, V., Sharma, S., and Bettis, R. The adoption of the M-form organizational structure: a test of imitation hypothesis. Management science, 34, 10 (1988), 1188-1201.
- [5] McAfee, R., Mialon, H., and Williams, M. What is a Barrier to Entry American Economic Review, 94, 2 (2004), 461-465.
- [6] Scherer, F. Firm size, market structure, opportunity, and the output of patented inventions. The American Economic Review, 55, 5 (1965), 1097-1125.
- [7] Sood, A., James, G.M., and Tellis, G.J. Functional regression: A new model for predicting market penetration of new products. Marketing Science, 28, 1 (2009), 36-51.
- [8] Stigler, G. The economies of scale. Journal of Law and Economics, 1 (1958), 54-71.
- [9] Van den Bulte, C. New product diffusion acceleration: Measurement and analysis. Marketing Science (2000), 366-380.
- [10] Von Weizsacker, C. A welfare analysis of barriers to entry. The Bell Journal of Economics, 11, 2 (1980), 399-420.

Effects of Psychological Perception Factors to Purchase Intention of Medical Service in Korea Focusing on Chinese and Japanese Consumers

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ABSTRACT

The healthcare industry is changing rapidly due to change in the internal and external environment; advanced medical technology, growth of the economy, increased demand of medical treatment from interest in quality of life, variety of disease treatment along with aging of the population. Recently, such changes in the healthcare industry, high costs and long waiting hours in developed countries, improved technology and service, advanced information technology and communication in addition to the trend of tourism created a new concept of service: medical tourism. In such conditions, numerous countries are actively supporting the development of medical tourism financially and politically. Along with its growing attention and high potential value, medical tourism, is becoming a competitive market. However, the level of research on the medical tourism industry and consumer characteristics is at its beginning stage. Therefore, further research on topics related to medical tourism is clearly needed.

This study focuses on the influence of consumers' psychological perception on intention to purchase medical services. More specifically, medical tourists have vague information when they decide to purchase other countries' medical service. Unclear information is

considered as a risk to medical tourists. As a result, we need to identify and classify risk factors (e.g., financial risk, performance risk, social risk, physical risk and psychological risk).

On the basis of literature review about perceived risk concept, this study proposes a conceptual framework which addresses following questions: (1) What are perceive risk factors to medical tourists? (2) What perceived risk factors can affect trust and overall perceived risk toward medical service? (3) Finally, can these psychological factors lead to purchase intention on medical service?

From the consumer perspective, moving to another country for medical tourism is filled with uncertain thing. Therefore, these research questions can provide what perceived risk factors have meaningful influence on trust and overall risk toward medical service. Furthermore, such factors may have a positive effect on customer attitude, which would gradually lead to the final purchase intention.

A Study on Consumer Decision Making Process in Medical Tourism with Perceived Risk, Trust, and Purchase Intention

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ABSTRACT

Few studies on medical tourism have investigated consumer behavior for making a decision of medical service use. We believe that consumers' intention to visit a country for medical service use strongly rely on how they perceive expected risk of the medical service from the foreign countries. Investigating consumer behavior on medical tourism is equally important not only for proper marketing activities but also for creating economic values. This paper proposes a model of the relationship between perceived risks and purchase intention to foreign medical service. It is expected that the output of this research will be useful for the related health care service industry to attract foreign consumers based on their decision making processes

Key words: Medical Tourism, Perceived Risk, Trust, Purchase Intention.

Introduction

The healthcare industry is changing rapidly due to change in the internal and external environment; advanced medical technology, growth of the economy, increased demand of medical treatment from interest in quality of life, variety of disease treatment along with aging of the population. Recently, such changes in the healthcare industry, high costs and long waiting hours in developed countries, improved technology and service, advanced information technology and communication in addition to the trend of tourism created a new concept of service: medical tourism [1]. In such conditions, numerous countries including Korea are actively supporting the development of medical tourism financially and politically. Along with its growing attention and high potential value, medical tourism, is becoming a competitive market. However, the level of research on the medical tourism industry and consumer

characteristics is at its beginning stage [2]. Therefore, further research on topics related to medical tourism is clearly needed. This study focuses on the consumer's travel decision making process under uncertainty. Our research is conducted with the following purposes:

- (1) To define the importance of perceived risk when consumers' making a decision related foreign medical service usage.
- (2) To investigate the relation between perceived risk and trust.
- (3) To analyze the influence of perceived risk on foreign medical service usage intention.

Perceived Risk

Bauer viewed the decision making process of consumers as a process reducing the feel of risk of uncertainty in a purchase-related environment and set the definition of perceived risk as risk perceived by consumers due to the uncertainty of various consequences of the actions lead by the consumers [3]. Uncertainty was defined as a subjective outcome derived from the purchase intention of a particular service or product [4]. From a marketing perspective, perceived risk is viewed as the level of risk perceived by consumers in the process of deliberating a purchase. Also, perceived risk was considered as the level of risk which varies across consumers relatively [5][6]. In addition, Peter and Ryan described it unequal to uncertainty considering the situations when purchase is not taking place regardless of the absences of uncertainty [7]. In fact, perceived risk is rather related to the expected loss from the purchase than uncertainty: the interference of purchase should be considered as a negative utility. Moreover, also perceived risk was defined as a subjective expectation loss [8]. Dowling reflecting both uncertainty and negative expected loss, defined perceived risk as the consumer's sense of

uncertainty related to the service provided and outcomes [9]. Based on the definitions in previous researches, this study defines perceived risk as the uncertainty perceived by consumers subjectively on the negative outcome they may experience after being provided with a particular service. Considering the connectivity of perceived risk and medical tourism in this study, purchasing a medical service of a different country means the purchase decision process of the consumer took place in an uncertain environment due to lack of knowledge on domestic services. Therefore, the research on perceived risk is vital in forecasting the purchase intention across medical tourism.

Trust toward Medical Service

Trust is defined as the truster's willingness to take the risk of the trustee's actions for the expected outcomes that may present value to the trustor [10]. Another definition of trust is the credibility of the subject as well as customer's belief for benevolence [11]. A research conducted on the influence of expectations, positive and negative motives on trust suggested that motives and expectations tend to increase probability [12]; therefore, the research described the meaningful interactions between trust and personality [13]. If a consumer were surrounded with uncertainty, he or she would use a variety of information sources to reduce the uncertainty. Among these sources, trust is used to effectively decrease perceived risk in a purchase environment [14]. As a result of putting former studies as a background, trust provides a basic platform of quality expectation or attitude towards a product. Therefore, based on previous studies, this study defines trust as the positive attitude of consumers who are willing to take the risk of uncertainty when provided with healthcare services.

Purchase Intention on Medical Service

In the Theory of Reasoned Action, when deciding an action or behavior, the consequences of those actions or behavior are carefully reviewed. If the expected outcomes are predicted to be positive, the possibility of executing the planned action or behavior increases [15]. Nonetheless, Purchase intention was viewed as a precondition of the actual purchase [16]. In addition, another definition of purchase intention is the possibility of converting attitude and belief into action. Purchase may be predicted through purchase intention and purchase intention may be an appropriate factor in predicting the actual purchase. Based on previous studies, considering the perceived risk of consumers on the provided healthcare service in a particular country, this study defines purchase intention as the intention to use the healthcare service in the future.

Perceived Risk & Trust

According to the previous studies on the relation between perceived risk and trust, trust was viewed as the antecedent variable of perceived risk; therefore, trust has a negative influence on perceived risk [17]. From another angle, perceived risk is considered as the antecedent variable of trust while the two variables may substitute each other [18]. Also, when trust exceeds the

level of perceived risk, consumers tend to execute the action related to trust. It was stated that risk taking affects both trust and perceived risk [10]. Perceived risk may derive either a positive or negative outcome when trust is considered to be the willingness to take the risk. However, placing either trust or perceived risk as the antecedent variable remains uncertain. The concept of trust and perceived risk may be understood through the level of psychological perception. Numerous researchers consider perceived risk and trust as important intervening variable in online purchase intention [18][19]. Based on previous studies, this study assumes that trust is an imperative intervening role between perceived risk and purchase intention in medical tourism.

Trust & Purchase Intention

Closely investigating the relation between trust and purchase intention, as the consumer's level of trust increases the attitude toward the service organization would also become favorable, thus giving a positive effect on repurchase intention [20]. It was proposed that trust of the buyer on the seller may act as the antecedent in purchase decision [21]. Moreover, a vast number of researchers viewed that trust affects future purchase intention while trust plays a major role in influencing purchase intention [22][23]. Based on the previous studies above, building trust is considered to be a vital factor in predicting purchase intention, thereby trust on the healthcare service formed by the level of perceived risk viewed to have influence on the particular healthcare service.

As a result, the conceptual framework is as follows:



<Figure 1. Conceptual Framework>

Based on the above studies, the perceived risk in this study will be specified into four factors; performance risk, financial risk, temporal risk, and psychological risk.

Conclusion

As might be expected, the output of this research will shed light on which perceived risk should be considered in terms of trust improvement. Furthermore, for managers, this result will provide insight into how consumers make a decision under risky situations and what perceived risk should be reduced to attract patients in order to bring out economic value if those hypotheses are significant.

REFERENCES

- [35] Connell, J.(2006), "Medical Tourism; Sea, Sun, Sand And Surgery. Tourism Management", 27(6), pp. 1093-1100
- [36] TRAM(2006), Medical Tourism: A global Analysis", A Report by Tourism Research and Marketing(TRAM), ATLAS
- [37] Bauer, R. A.(1960), "Consumer Behavior As Risk Taking In R. S. Hancock, Dynamic Marketing For A Changing World", In Proceedings Of The 43Rd Conference Of The American Marketing Association, pp.389-398
- [38] Cox, D. F & Rich, S. U.(1964), "Perceived Risk And Consumer Decision Marketing: The Case Of Telephone Shopping ", Journal Of Marketing pp.32-39
- [39] Mayer, R. C., Davis, J. H. & Schoorman, F. D.(1995), "An Integrative Model of Organizational Trust, Acad, Manage. Rev. 20(3), 1995, pp.709-734
- [40] Kim, K. & Prabhakar, B., "Initial trust, perceived risk, and the adoption of Internet banking", in: Proceedings of the 21st International Conference on Information Systems, 2000, pp.537-543
- [41] Peter, J. P & Ryan, M. J.(1976), "An Investigation Of Perceived Risk At The Brand Level", Journal Of Marketing Research Vol.13, pp.184-188
- [42] Stone, R. N. & Gronhaug, K.(1993), "Perceived Risk: Further Considerations For The Marketing Discipline ", European Journal Of Marketing Vol.27, No.3, pp.39-50

The rest of the references will be available upon request

Comparative Study on Shenzhen & Hong Kong's Health Resource Allocation Level Based on DEA - Malmquist Method

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ABSTRACT

The paper leads an innovative tactic to introduce data envelopment analysis (DEA) with the analysis of ACR & FBR trend of HMC, HTC and HEC, attempt to evaluate Shenzhen & Hong Kong's health resource allocation level from 1997 to 2008. Aim to compare the status and progress of Shenzhen and Hong Kong's health resource allocation management technology, provide advice for the improvement of health resource manage level, the development of Shenzhen-Hong Kong innovation circle, and the establishment of health information resource digital exchange platform.

INTRODUCTION

Health care is an important component of the total government expenditure, Shenzhen and Hong Kong are of no exception: Shenzhen's input in health care skyrocket from 1.165 billion Yuan in 1997 to 7.216 billion Yuan in 2008, which has a high annual average growth of 20.26%; Hong Kong's annual average growth only reach 3.13%, raised from 61.906 billion Hong Kong dollars to 83.899 billion Hong Kong dollars.

Simply base on annual average growth in health care expenditure, can we conclude that Shenzhen's health service level is higher than Hong Kong?

The answer is obvious, a high investment level growth do contribute to the improvement of health care service level. However, health services is a comprehensive index, health resource allocation efficiency is also an important factor in improving resource management in health care field to increase the benefit with limited input.

Data envelopment analysis (DEA) is a non-parametric analysis method based on mathematical economics, which is design to progress decision-making unit (DMU)'s efficiency assessment with multi-input and multi-output and it has unique advantage in evaluating non-profit public institutions for no request of price information.

In recent years, DEA method have been widely used in developed countries like America, England, Australia, etc. to evaluate the management level of non-profit agencies such as universities, research institutes and so on. While in China DEA method is rarely used, especially in the health care field which is without precedent, therefore, the research team leads

an innovative tactic to introduce DEA method to evaluate the level of Health care resource allocation level, Shenzhen & Hong Kong as sample.

INDEXES SELECTION & DESCRIPTION

1. Shenzhen and Hong Kong's total population and population composition are quite different, direct comparison of the total resources input is unscientific. Therefore, we standardized all total input indexes of Shenzhen and Hong Kong, using resources input per thousand population to possess logical comparison, the three input indexes are: health care manpower per thousand population, beds per thousand population and health care expenditure per thousand population, which measure the input status of health care manpower resources, hardware resources and financial resources.

Particularly, there is a different calculation constitution between Shenzhen and Hong Kong's total health care expenditure. Shenzhen's total health care expenditure data is the sum of three parts: 1. Shenzhen Health Bureau's health care expenditure; 2. Shenzhen Health Bureau's fixed assets expenditure; 3. Shenzhen Social Security Bureau's Social Security Fund. The data are collect from Shenzhen Health Bureau's "2008 Shenzhen Health Annual Statistics" and Shenzhen Social Security Bureau's website. Hong Kong's total health care expenditure data is collect from Hong Kong Food and Health Bureau's website, which is part of Hong Kong's Domestic Health Accounts annual data.

2. Birth survival rate and life expectancy at birth measure a district's comprehensive health care services level, they are selected to be the following 2 output indexes.

Birth survival rate is a transfer index base on infant mortality rate. A lower infant mortality rate (IMR) indicates a higher level of medical services, which has a different measure direction as a normal index that a growth means a better circumstance. Moreover, the IMR is also accounted via a ratio base on per thousand population, which can be easily transfer to calculate the number of survival infant per thousand new-born population. For example, if IMR is 8.8 per thousand, it can be transfer to represent a number of 991.2 survival infant per thousand. This index reflects how much the increase in health resources input benefit the infant survival rate.

The calculation of Shenzhen and Hong Kong's average life expectancy at birth index is different. Shenzhen's average life expectancy at birth data using 1997-2008 IMR as variables, combine the research on "world's 52 countries' IMR and the average life expectancy" and Shenzhen's demography data to estimate the regression equation; Hong Kong's average life expectancy at birth data is base on the numbers released by Department of Health, and it's the average of male and female life expectancy tables. This index reflects how much the increase in health resources input improve life expectancy at birth.

RESULTS & ANALYSIS

Abbreviation and Explanation:

SZ: Shenzhen, city next to Hong Kong, special economic district in China;

HK: Hong Kong, one of World Financial Center;

HMC: health care resource total factor production change, the Malmquist index;

HTC: health care resource technological change;

HEC: health care resource element utilization change;

ACR: annual chain ratio, a list of ratio which the present year's value is calculated by comparing with the same period of last year;

FBR: fixed base ratio, a list of ratio which set 1997 as fixed base, using multiplication to obtain.

(1) Shenzhen & Hong Kong's HMC Trend

HMC base on the measurement of total factor production, it's the index to evaluate comprehensive health resource allocation efficiency with all the given inputs and outputs.

HMC YEAR	ACR		FBR	
	SZ	HK	SZ	HK
1998	0.975	0.977	0.975	0.977
1999	0.989	1.012	0.964	0.989
2000	0.958	1.022	0.924	1.010
2001	0.955	0.977	0.882	0.987
2002	0.949	0.998	0.837	0.985
2003	0.964	1.010	0.807	0.995
2004	0.945	1.016	0.763	1.011
2005	1.211	0.999	0.924	1.010
2006	0.776	1.019	0.717	1.029
2007	0.834	0.985	0.598	1.014
2008	0.897	0.972	0.536	0.985

Shenzhen's HMC Trend: From 1998 to 2004, ACR is in the fluctuations between 0.945 and 0.989, but with a stable downward trend. FBR in 2004 only

reach 76.26%, already decrease 23.73% in 7 years. Particularly, ACR in 2005 soared to 1.211, which increase 21.1% compare to 2004 and it also makes FBR in 2005 recover to 92.36%, almost the same value in 2000. In 2006, ACR only value 0.776, fell to the bottom and then gradually recovered to 0.897 in 2008 when FBR keep falling till 53.6% from 2006 to 2008.

Why did ACR in 2005 soared to the top then fell to the bottom the next year? First, refer to the documents of Shenzhen social security bureau, it's the year when a cooperative health care system especially for Migrant workers was established. Shortly in 9 month, 1.24 million people participated in the new system and provide 86.03 million Yuan income for the cooperative health Fund. Meanwhile, the new system offer not only out-patient service but also hospital service in a dramatically lower price. This maybe a main factor contribute to ACR growth. Second, because of the measurement method and ACR in 2005 is too high, the following ACR is apparently lower than 2005. Actually, if we select 2004 to be the base and calculate the FBR in 2006, the result is 93.97%, which is definitely a high value. Therefore, due to excessive growth in 2005, after the benchmark increase over the chain, the apparent values become very low after 2006.

Hong Kong's HMC Trend: From 1998 to 2008 years, Both ACR and FBR constantly fluctuated, but with a trend of upward because most of the values maintained approximately above 1. In 2008, FBR still remained 98.53%, showing that Hong Kong's health resource allocation efficiency is fairly stable and maintain good status within 12 years.

In short, according to FBR data, both Shenzhen and Hong Kong's final-year HMC had lower efficiency than the base year level, but Hong Kong was able to maintain a higher resource allocation level than Shenzhen did in 12-years-chain.

(2) Shenzhen & Hong Kong's HTC Trend

HTC is an important part of comprehensive resource allocation efficiency level, it's a measure of technical upgrade in hardware, manpower and financial resources such as update Hi-tech health care equipment, health care professional skill training, well-distributed in health care financial input, etc.

Shenzhen's HTC Trend: the values of ACR and FBR from 1998 to 2008 are the same as HMC table. This may be an improper result, which will be explained at the end of the paper in OUTLOOK. Otherwise, Shenzhen's growth in HMC is completely affected by HTC, which means Shenzhen's comprehensive resource allocation efficiency level is fully rely on technical upgrade.

HTC YEAR	ACR		FBR	
	SZ	HK	SZ	HK
1998	0.975	1.030	0.975	1.030
1999	0.989	1.023	0.964	1.054
2000	0.958	1.028	0.924	1.083
2001	0.955	1.006	0.882	1.090
2002	0.949	0.989	0.837	1.078
2003	0.964	0.976	0.807	1.052
2004	0.945	0.982	0.763	1.033
2005	1.211	1.253	0.924	1.294
2006	0.776	0.617	0.717	0.799
2007	0.834	0.916	0.598	0.732
2008	0.897	0.948	0.536	0.693

Hong Kong's HTC Trend: From 1998 to 2004, ACR is in the fluctuations between 0.976 and 1.030, BFC share the same trend but maintain above 1, which indicate HK's technical upgrade is remain in a continuous improvement status. In 2005, FBR boost 26.13% compare to the level in 2004, and then sudden reduced in 2006, decrease 49.57% compared to the level in 2005. The following value keep falling till 2008, FBR only reach 69.3% while ACR restore to 0.948.

This trend is similar to SZ's HMC trend, one of the reasons is also measurement method and high value in 2005, but what's the reason for the boost in 2005? Recalling HK hospital authority (HA) annual report, In 2005, HA invited Dr. William to be the new chief executive in pioneering a "new modernize" ideal that modernization is not only about catch up the development in treatments and implements, but also role of the manpower, facilities, information technology and management system reform. Therefore, a revolutionary system reform was carried out and HA was upgrade within via a brand new modernized system. To support this grand plan in health care system reform, HK government assisted HA 803 million HK dollars in 2005, almost a double account compared to the previous 460 million in 2004. This maybe the main health policy reform factor for the boost in 2005

In short, according to ACR data, both Shenzhen and Hong Kong's HTC have a trend of in a slowly decrease fluctuations at first, than boost to the top through health policy reform, finally accelerate in a downward trend, end in a low value compare to FBR. But HK's FBR maintain above 1 from 1998 to 2005 and is 15.7% higher than Shenzhen in FBR data. According to the comprehensive results, Hong Kong's HTC is considered to be higher than Shenzhen.

(3) Shenzhen & Hong Kong's HEC Trend

HEC is calculated to measure input resource utilization efficiency, which is another main factor in health care resource allocation efficiency evaluation.

Shenzhen's HEC Trend: From 1998-2004, ACR were in a fluctuation between 1.011 to 1.058, fell to the lowest level in 2005, only reach 0.826, then sky-rocket to 1.289 next year, finally end at the value of 1.115. However, FBR almost maintain increase trend throughout 12 years except 2005, the final value is 186.6%.

Hong Kong's HTC Trend: ACR trend is similar to Shenzhen's situation, but the value from 1998 to 2001 is below 1. FBR values fluctuate and maintain below 1 from 1998 to 2005, but reach 144.4% finally.

HEC YEAR	ACR		FBR	
	SZ	HK	SZ	HK
1998	1.026	0.971	1.026	0.971
1999	1.011	0.978	1.037	0.950
2000	1.044	0.973	1.083	0.924
2001	1.047	0.994	1.134	0.918
2002	1.054	1.011	1.195	0.929
2003	1.037	1.025	1.239	0.952
2004	1.058	1.018	1.311	0.969
2005	0.826	0.798	1.083	0.773
2006	1.289	1.621	1.396	1.253
2007	1.199	1.092	1.674	1.369
2008	1.115	1.055	1.866	1.444

HEC results are the reflection to HTC. In 2005, both Shenzhen and Hong Kong launch an enormous policy reform in health care system, the input resources are too abundant too consume in one year, this maybe the reason for lower values in 2005. Similarly, with the upgrade in resource allocation level, the resource left last year was able to transfer into output in 2006, this maybe the explanation for the situation in view of resource utilization.

CONCLUSION

Combine 3 comparative index tables' ACR & FBR trend from 1998 to 2008, Shenzhen & Hong Kong's HTC and HEC share a similar ACR & FBR trend affect by policy reform in health care system, However, according to overall FBR trend, Hong Kong appear to have a higher comprehensive health resource allocation efficiency & technology upgrade advantage, while Shenzhen have a higher level in resource utilization efficiency.

OUTLOOK

The paper attempts to introduce DEA method into the field of health care system assessment, the results and analysis shows that DEA method has a basic capability to reflect the change of actual situation, its results are reasonable and can be analyzed and interpreted. This may provide advice & reference for the improvement of health resource manage level, the development of Shenzhen-Hong Kong innovation circle, and the establishment of health information resource digital exchange platform.

However, there are still a few imperfections in model and index selection: The designer of DEA - Malmquist model recommends the user to select this method when there are multiple DMU, meanwhile, the volume of input and output indexes should be less than the quantity of DMU, which may affect the accuracy of model calculation. This paper use only two DMU: Shenzhen and Hong Kong, while there are three input indexes and the two output indexes, the number is equal to or more than the number of DMU. Thus, this may lead to some improper results. For example, Shenzhen's HTC and HMC data are almost the same, indicate that the overall efficiency improvement index remain 1 from 1997 to 2008, which suggest Shenzhen

had no overall efficiency improvement at all. This improper result hardly reflects the real situation. Beds per thousand is use as the index to measure hardware resource input status, which can't accurately reflect the technology upgrade of hardware resource, such as Hi-tech equipment replacement. Similarly, health care manpower per thousand population is not appropriate enough as well. This imperfection is found at beginning, but Shenzhen's data is incomplete in details, consider maintain consistency in a comparative research, we compromised and set the standard base on the data that are comparable between Shenzhen and Hong Kong. To make a better evaluation on health resource allocation level and its factors, the research team intends to use a more advanced DEA method, one of the latest research achievements: IM model, which is design to overcome the standard DEA model's defect in measuring proportion data. IM model has a significant upgrade in the ability of distinguish proper and improper data, especially for the situation when having few DMU but a lot of indexes. Meanwhile, the research team will make an effort in fulfilling the database with every year's details in order to obtain more scientific and reasonable results.

References available upon request

Strategies to Improve Drug-store Business in Thailand, to Connect towards the Public Health System

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ABSTRACT

At present, the drugstore or pharmacy business in Thailand is facing a high competition, from independent and national level chain drugstores. Several economic and socio-political scenarios have caused changes in the drugstore business and its business practices. The government wanted to connect the qualified drugstores to the public health system through the Thai Universal Coverage Scheme. To date, the outcome of the public project, particularly the number of the accredited drugstores, seems to be very low or unsatisfactory as planned. Therefore, the proposal of managerial strategies would potentially help the government achieve an optimal goal for better quality of the public health system.

Keywords: Public health system, Thailand, Universal Coverage Scheme, Drugstore, Strategies,

INTRODUCTION

In 2002, the government of Thailand launched a project, Thai Universal Coverage Scheme (UCS), with an aim to integrate and manage drugstores throughout the country, to provide better quality of health care for the Thai citizen. Thai Universal Coverage Scheme preferred the connection of the qualified drugstores with the public health system [1]. To achieve the goal of this health project, the working process was divided into two phases: in initial phase, the government intended to improve the quality of drugstores. At this step, the drugstores throughout the country needed to be trained in order to receive qualifying assurance. In doing so, several managerial strategies were developed such as increasing pharmacist self-motivation and public relation [2]. In the second phase, the government wanted to connect the qualified drugstores to the public health system and develop primary care pharmacy in drugstores was an aim of this policy.

With regard to the initial phase, the number of drugstores that received quality assurance was not enough to connect to the public health service to provide an efficient healthcare system for the Thai citizen. From 2003 to 2010, the Community Pharmacy Development and Accreditation accredited 361 drugstores, equal to 3.14% of the country's drugstores [3]. Most of the accredited drugstores were located in Bangkok (127 drugstores or 35%).

This percentage of accredited drugstores perhaps is reflective of threats that prevent participation in the project. Threats to participate in Community Pharmacy Development and Accreditation Project are composed of internal and external factors. The internal factors that post difficulty to the implementation of the project can be thought of as non-motivation in business competitions, pharmacists' absence during working hours and difficulties of following the pharmaceutical standards. On the other hand, the internal factors can turn out to stimulate the progress of the health project when the pharmacy owners who participate in the Accredited Pharmacy project have positive attitudes to pharmacists' roles. At the same time, pharmacy owner or pharmacist need to keep in mind the professionalism and there responsibility as well, to provide good pharmacy service to patients. They do not think of them as complicated or increased expenses [4]. The major key in the external barriers are a big margin between profit and investment in the improvement of the drugstore, lack of support from the government sector, ineffectiveness of public relations to stimulate number of customers, and not allowing accredited drugstores automatically qualified as Community Pharmacy Models Under the Universal Coverage Scheme (CPUC), without additional accreditations [5][6][7][8]. In conclusion, both internal and external motivations of pharmacists are important [9] but the internal factors have more effect on the pharmacists to improve their drugstores than other factors [8].

For the second phase, the connection of drugstores and public health care service sectors has been in question whether or not Thailand has entered this stage yet. A case study of Universal Coverage Scheme (UCS) in Republic of Korea is a good case study to look at how the government has tried to reform the health services system. In the beginning, they supported the health project of private sectors to play a leading role in health care services in 1980. Then, they connected them to the Universal Coverage of National Health Insurance in 2002. Since then, the pharmacies or drugstores have been considered as sub-health care service sectors and have been connected to medical institutions with the aim to increase an efficiency of health services in the rural areas. This was to solve a problem of a concentration of physicians in large cities and disparity between high medical care costs and low health benefits [10][11]. In this case, Thai's health-care system is facing similar problems as Korea in the initial stage.

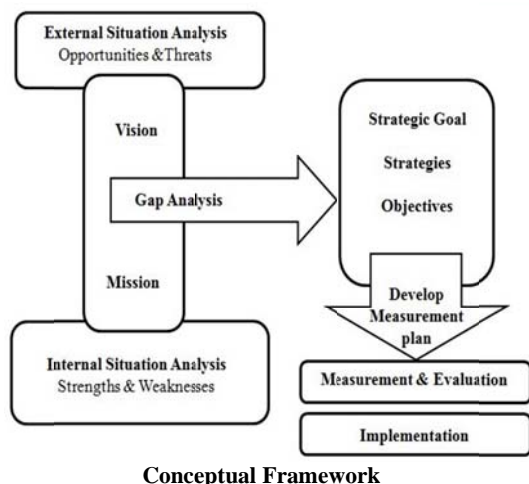
As mentioned in the foregoing section, currently, the Thai healthcare system is in its initial stage with only the university pharmacies such as Mahasarakham and Khon Kean University pharmacies can be connected to the UCS. However, the effective connection would be difficult to implement to private drugstores because the law does not allow, unidentified financial incentives or co-payments.

Therefore, to help the Thai government, successfully implement this project, for the people of Thailand, it would be very interesting to undertake a study and research that would explore the obstacles, threats, which caused a failure to the management and implementation during an initial phase. Moreover, this study attempts to propose a managerial strategy that would potentially help government achieve its optimal goal for a better quality of public health system. Thus, the research question is: What is an effective managerial strategy to make Community Pharmacy Development and Accreditation successful?

However, since the researcher is still in the process of planning the research design, the purpose of this paper is thus to propose the conceptual model and tentative research methodology that helps the researcher obtain a reliable and meaningful data.

Research Methodology

The field of strategic management cannot afford to rely on single definition or proceeding of strategy, indeed the word has long been used implicitly in different ways. Denise L. Wells explained the strategic management as the process of deployment and implementation of the strategic plan and measurement and evaluation of the results [12][13]. To better understand the strategic management, a systematic approach is needed to identify and make the necessary changes and measure performance as it moves toward the Community Pharmacy Development and Accreditation vision. This research presents concepts, processes and methods as shown in Figure 1.



As presented in Figure 1, the methodology of this study can be divided into 3 steps. First of all, because this study follows a strategic management framework, is to examine factors related to the strategic planning process during the implementation phase, such as the policy objectives and goals which lead to an accomplishment of the vision of the organization's future. A situation analysis or the SWOT analysis will be used to identify internal and external strengths, weaknesses, opportunities and threats of Community Pharmacy Development and Accreditation situations. The researcher will apply the documents analysis or an analysis of the information of organizational structure, culture, and policies pertaining to strategies and policies of accredited drug stores in connection to public health system. In doing so, the results of the analysis will lend the researcher potential information to create purpose, new objectives, strategies, and goals of the policy.

At the second step, a measurement and evaluation of strategies created from the first step is conducted by individual in-depth interviews with multi-stakeholders, such as the policy makers who are directly involved in the UCS, Community Pharmacy Development and Accreditation, health care providers in the private and public sectors, academicians and health professionals. This is to ask for their opinion whether they agree or disagree with the purpose, objectives, strategies, and goals. In addition, the researcher will use this stage as a platform to allow the stakeholders to provide all comments to a formation of new strategies to improve drug-store business and connect it with the Community Pharmacy Development and Accreditation.

The third step aims to finalize the strategies that can be developed after the second step. Focus group interview with semi-structured questions will be conducted in this stage. This is also to allow a platform for discussion individual ideas are solicited from the group and finally help shape the efficient strategies to improve drug-store business and connect it with the Community Pharmacy Development and Accreditation. Key informants are quite similar to the key informants in the second step.

Research Fellowships may be held for a period of *two years*, beginning on June 2011 and ending on August 2013.

REFERENCES

- [1] National Health Security Office. NHSO Announcement about Principle, Method and Criteria for Registration of Healthcare Providers Unit and Their Network, 2004. Available at: www.nhso.go.th Accessed on March 30, 2011.
- [2] The Thai Pharmacy Council. Community Pharmacy Development and Accreditation, 2005. Available at:

- www.pharmacycouncil.org Accessed on Jan 24, 2011.
- [3] Food and Drug Administration. Bureau of Drug Control, 2009. Available at: <http://www.wapp1.fda.moph.go.th> Accessed on March 30, 2011.
- [4] Tositarat, P. Development Process of Quality Pharmacies Enrolling in the Community Pharmacy Development and Accreditation Project in Mueng Ching Mai Distric. Master Thesis, 2009, MBA., Ching Mai University.
- [5] Chalongsuk, R., Shangchan, T., Putsilpornsakun N., Vhaisuvunarat T., & Leungpoonlarb P. Pharmacy Entrepreneurs' Opinion Survey on Barriers for Enrolling in Community Pharmacy Development and Accreditation Program. Journal of Health Research, 2007, 21(1),43-53
- [6] Anuluckkanapakorn, S. A Study of Feasibility in Investing in a Quality Drug Store business in Nakhon Pathom Province. Master Thesis, 2008, **M.A. (Economics)**, **Ramkhamhaeng** University.
- [7] Lochid-amnuay, S, Waiyakarn, S, Pongcharoensuk, P, Koh-Knox, CP, & Keokitichai, S.
Community Pharmacy Model under the Universal Coverage Scheme in Thailand. Thai Journal of Hospital Pharmacy, 2009, 19(2),110-122.
- [8] Arkaravichien, W, Kerdmongkol, C, Charmarrauge, V, & Augkaravichian, T. Motivation and Obstacle to Join Pharmacy Accreditation Project. HCU Journal, 2007, 11(16), 16.-25.
- [9] Puntuluck, P. Understanding Decision of Pharmacy-Owning Pharmacists to Enroll in the Community Pharmacy Accreditation Program in Nakhornratchasima Province. Master Thesis, 2551, M.Sc in Pharm, Chulalongkorn University.
- [10] Chun, C-B, Kim, S-Y, Lee, J-Y, & Lee S-Y. Republic of Korea: Health system review. Health Systems in Transition, 2009, 11(7), 1-184.
- [11] Kima, H-J, Chungb, W, & Lee c, S-G. Lessons from Korea's pharmaceutical policy reform: the separation of medical institutions and pharmacies for outpatient care. Science Direct, 2004, 68 (2004), 267-275.
- [12] Gluck, F.W., Kaufman, S., & Walleck, A. S. The four phases of strategic management. Journal of Business Strategy, 1982, 2(3), 9-21.
- [13] General Strategy Theory. The Strategy Concept I: Five Ps For Strategy. California Management Review, 1987, P 11-22.

Principles of a Human Capital Measurement System

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ABSTRACT

In addition to talent being a key organisational capability and transformational aspect of Human Capital (HC), the boundaries of organisations are giving way to include external partners to form a collective intelligence. There is, however, uncertainty as to how to conceptualize a measurement system to further the understanding of such organisational capability. This exploratory-descriptive study investigated principles of a human capital measurement system amongst six practitioner experts in the field of HC measurement. The main findings point to a need to influence a corporate strategy, with profit as the ultimate dependent variable as part of predictive analytics, and a stakeholder-specific supply of HC intelligence.

INTRODUCTION

Human capital is a determining organisational capability in the knowledge economy when considering its increasing yet intangible value as part of organisations' market value over time [1][2][3][4]. Two separate but related intellectual capital paradigms, value creation and value extraction [5], focus attention on people as a capability in maximizing value and remaining competitive. Organisations should thus move from the view of an organisation as a structure to one of it being a set of capabilities [6].

Principles driving an HC measurement system can be broadly classified into four integrated categories, namely context, architecture, level, and cooperation.

The point of departure is *context* (or strategic relevance), which encompasses the answering of important strategic questions [7] and focuses on the strategic impact of the workforce (i.e., the productive results of talent) [8]. Understanding relationships between workforce measures and the drivers of financial performance [8] are key to predicting future likelihoods, and should consider human, structural, and relational capital in predictive analytics [9]. As such, HR professionals (HRPs) should look for new measures [8] and not only rely on benchmarks [8]. It was not surprising that most "important and common" measurements [10][11][12][13] revealed no consistency across various organizational settings. This relates to the concept of strategic validity [7], where measures support the corporate strategy. A caution is proposed regarding a trade-off between what is feasible and what is valid [7]. It should be

clear that an HC measurement system doesn't start with selecting measurements [8][11].

Architecture focuses attention on a line of sight [7] and the workforce architecture [8], referring to the interrelated processes and the associated roles and responsibilities. This requires an understanding of the strategic and operational logic of the organisation [8].

Level refers to stakeholder-specific demand for and supply of HC intelligence. Research [14][11] revealed that different information needs are associated with different management levels. An existing framework [11] appreciates levels of management, and indicates direction in supplying information (e.g., upwards to executive teams, outwards to other functions, and downwards within the HR function), but does not address the issue of type of information required. Three levels of decisions that focus on the type of information needed and the programmability of associated decisions are propounded [15]. For example, at strategic level, information is of a predictive nature (with a low programmability) with a focus on long-term trends. The other end of this continuum, which considers the operational level, utilizes descriptive-historical information with high programmability. The mismatch between demand for and supply of information prevents purpose-driven and useful information that allows C-level managers to make decisions and gain practical insights [16]. There is also a notion that a dashboard should focus on a few vital measurements [7], raising awareness to level-specific information.

A last category, *cooperation*, refers to a mutual responsibility [7]. Human Resource Management (HRM) is a strategic business partner [17][18], which entails a shared responsibility between HRM and line management in managing the organisation's human capital, and, they should be mutually responsible for measurements to ensure consensus (face validity) on what is measured. This necessitates the exchange of appropriate and valid information.

There is uncertainty as to how to conceptualize the measurement of human capital as a key organisational capability, especially the conceptualization of collective intelligence in open innovation (where the innovation process is extended to external partners [19]). Not understanding the principles of a human capital measurement system presents a challenge in advancing to a true understanding of value. This article then explores and describes these principles.

RESEARCH DESIGN

Research approach. The research approach could be described as an exploratory-descriptive qualitative study.

Research strategy. A multiple case study design, allowing for an in-depth description [20], replication, and convergence [21] of a small number of cases was employed. The unit of analysis was comprised of practitioner experts in the field of HC measurement.

Research method. *Research setting:* South African practitioner experts in the field of HC measurement, predominantly from the Financial Services as well as Information and Communication Technology industries, were interviewed in order to gain detailed accounts and considerations in order to conceptualize a measurement system in HC measurement.

Entrée and establishing researcher roles: Entrée was established by approaching purposively sampled participants via telephonic invitation and descriptive e-correspondence. A similar approach was followed with snowball-sampled participants who were informed of their nomination, the anonymity of all participants, and the objective role of the researcher.

Sampling: Purposive sampling was employed to select criteria-fit participants [22], specifically with expert knowledge of HC measurement as embedded in the conceptualization, application, and public dissemination thereof. Snowball sampling was simultaneously employed where collected data or participants pointed to the need for additional participants [22]. Six participants' data were analyzed.

Data collection method: Unstructured interviews were conducted, and unsolicited and solicited secondary data were included in the data analysis.

Recording of data: Interviews were recorded digitally, transcribed verbatim, and stored contextualized as a hermeneutic unit in ATLAS.ti.

Data analysis: A recent approach to Thematic Analysis [23] (commencing with data familiarization, initial code generation, theme searching, theme reviewing, theme defining and naming, and, lastly, producing the report) was employed using ATLAS.ti. Coding followed an inductive approach at both semantic (explicit) and latent (interpretative) [23] levels.

Strategies used to ensure quality research: Member validation, peer debriefing, and triangulation were employed to ensure credibility. Triangulation also ensured confirmability. Systematic coding practices were employed to ensure dependability.

Reporting: Scientific and realist tales [20] are used to report findings and support arguments [8].

FINDINGS

Twelve themes prevalent across the data corpus, indicated in parenthesis, are discussed below.

Influencing the corporate strategy (21) describes C-level executives' need for HRPs to

influence the business strategy through people information, leading to increased profitability:

[W]hat I'm looking for is HR metrics that would help me to develop a strategy that will help my business to compete more effectively in the marketplace [... and] [i]hink about how you as HR help this business to compete better ... (Research participant (RP) 5).

The overarching goal should be **supporting decisions with the aim of generating profits** (20), which conveys the singular importance of profit generation being the dependent variable:

The context of the metrics can't be HR or IR strike days minimised, or number of court cases settled. ... Why don't you as HR [...] help me to make decisions about a talent management strategy for the business? ... And [...] in a world of business, ... the dependent variable has to be the profits that we generate (RP5).

Thus, metrics should drive and help business be more competitive, and thus give focus to the returns for shareholders.

Focusing variables' relationships to business measures establishes causation (46) raises the importance of applying and understanding cause-and-effect relationships, which may reveal new relationships in enhancing performance, and consequently assist senior managers in managing the business.

[...] start putting measures in to look at what you are doing in terms of strategy means you have to look at other measures, new ones. You have to say, 'If I want to grow the business, am I growing a new market segment at X percentage so that it will actually replace another market segment' (RP6).

Causal chains also assist in trouble-shooting performance:

So it's one of those multifaceted predictive indicators, which, -if you go back and look at the possible causes [...] you can then [ascertain] what realistically has been happening within the business (RP2).

Conducting external qualitative benchmarking (7) conveys the benefit of gaining an understanding of leading people practices in world-class organisations. Comparison with such standards can influence various roles (e.g., business partner, change agent, people custodian, and expert) and the psychological contract (e.g., coercive, partnership, or instrumental).

In implementing the corporate strategy, **integrating the business strategy into organisational sub-systems** (212) requires the strategy and the required roles and activities to be horizontally integrated across the business' value chain, and vertically into various complementing value chains to drive all initiatives and actions. It should not be positioned as functional silos. Measurements are only selected after this integration.

Creating a line of sight (12) urges a *vertical* integration of various levels (including roles and responsibilities) within HR to ensure an understanding

of linear contribution. In addition, *horizontal* cross-functional integration is stressed to ensure consensus (face validity) on what is being measured and, consequently, an understanding of horizontal contribution:

HRIS information should take an integrated view of the organisation (38); organisation-wide functional processes and activities should be automated in Enterprise Resource Planning (ERP) to provide cross-functional business intelligence when asking functional and strategic questions at specific levels of decision-making. HR should understand how it is positioned (vertically and horizontally integrated) in the organisation.

Applying an understanding of **providing specific information per levels of decision-making** (43) refers to the supply of information. Three levels, ascending in terms of complexity, are delineated, namely: *monitoring* (periodic review of the present to regulate people and HR delivery); *trouble-shooting* (looking backwards, and tracing and solving operational difficulties informally with lagging indicators, or formally by tracing deviations down a causal chain); and, lastly, *predicting* (which focuses cognitive efforts to predict future likelihoods) in the direction of the corporate strategy and thus shareholder wealth.

With reference to level-specific information, **senior management does not value transactional information** (26), as operationally-oriented information focuses on HR activities with no indication of future profitability:

[T]his historical data where you make deductions from, is transactional data ... [and] is purely a view on the relative health [of the organisation] ... That still doesn't give you an idea whether the company will survive in the next five years (RP6).

Similarly, **reporting on compliance (legislative) issues is of limited value to executives** (17), as past decisions can't then be influenced. Executives want information of a predictive nature that can influence the corporate strategy. Thus, **operational information has a specific audience** (15).

Cross-functional shared responsibility in measurements (23) necessitates an understanding of the architecture of the organisation, prevents silo thinking, and consequently ensures a common understanding or consensus on measurement.

DISCUSSION

The purpose of this article was to explore and describe the principles underpinning an HC measurement system as conceptualized amongst practitioner experts in this field. The main findings point to a need to influence a corporate strategy, with profit as the ultimate dependent variable as part of predictive analytics, and a stakeholder-specific supply of HC intelligence.

Summary of findings: The *context* evident in the findings highlights the transformational nature (a source of value generation) of HC is acknowledge, given the application of predictive analytics. Not evident in the findings is the integration between human, structural, and relational capital. However, the *architecture's* line of sight is realized by a vertical and horizontal integration of functions and levels across the business value chain. This necessitates the stakeholder-specific approach in the *level* category that delineates and support complexity of and decision-making across various levels. Lastly, HRPs and Line Management should *cooperate* in measurement, given the architecture. Such cooperation, through dialogue to reach consensus, will ensure face and internal (strategic) validity.

Lacking in evidence is the advancement of qualitative external benchmarking into statistical analysis. In addition, no evidence was found of a boundaryless approach to the value of human capital, which limits the potential value of open innovation, and, ultimately, shareholder wealth.

Implications for managers: The findings offer design principles to HRPs in conceptualizing a measurement system. Stakeholder sensitivity also presents approaches to balancing the demand and supply of level of management and decision-specific information that will result in strategically relevant intelligence marked by face and internal validity.

Possible limitations of the study: Transferability is limited as this multiple case study design is directly applicable to the research participants investigated in South Africa.

Suggestions for future research: A decision science to understand variables impacting (including confounding variables) on the intangible (intelligence) and economic value of human capital needs further refinement. An additional evolutionary question, still unanswered, is the conceptualization of measurement of the transformational nature of collective intelligence as extended to external parties, as in open innovation.

Conclusion: The purpose of this study was to explore and describe the principles underpinning an HC measurement system. Clusters of themes highlight the need to supply stakeholder-specific information regarding human capital value to influence the corporate strategy. The focus on intangible value still remains to be made tangible and expressed in monetary terms.

REFERENCES

The full list of references is available upon request.

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Non-linear Relationships Between Job Demands, Job Resources and Work-Based Identity

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ABSTRACT

The Job demands-resources model has shown to linearly predict work-based identity. This study considered the possibility that non-linear relationships could exist between job demands (JD) and work-based identity (WBI) as well as job resources (JR) and WBI. A census-based sampling approach on a population of 23 134 yielded a sample of 2 429. General multiple regression models revealed that both job demands and job resources have significant non-linear relationships with work-based identity respectively.

INTRODUCTION

The Job demands-resources model (JD-R) has shown to predict work engagement [1, 2, 3] and work-based identity [4]. All of these studies have assumed linearity amongst the variables, without considering the possibility that non-linear relationships could exist between job demands (JD) and work-based identity (WBI) or work engagement (WE) as well as job resources (JR) and WBI or WE. The focus of this study is on WBI.

The possibility of non-linear relationships between these variables could identify a more accurate relationship of JD and JR as determinants of WBI. Non-linear associations between variables usually present more complicated and interesting findings in organisational research than linear associations [5]. Significant linear relationships found in a study also do not preclude non-linear relationships from occurring in the same study [6]. This study therefore aims to establish if non-linear relationships exist between JD and WBI, as well as JR and WBI. To date, there has been no research published on this.

The JD-R model attributes employee wellbeing to the characteristics of the work environment [7]. Work characteristics can be divided into two broad categories: job demands and job resources. The JD-R model's strength lies in its ability to understand two parallel processes that influence employee wellbeing. These are: (a) a de-energising process in which *job demands* exhaust an employee's mental and physical resources, which could lead to burnout and eventually to ill health; and (b) a motivational process in which *job resources* promotes work engagement and could lead to organisational commitment [8]. To date, there has been no research published that has used the JD-R model in a non-linear fashion with work engagement and WBI.

One model that considers the assumption of non-linearity between job characteristics and

wellbeing is the Vitamin model [9]. Warr [9] used the analogy that in the same way that vitamins influence our health and wellbeing, so does our working conditions or job characteristics influence our mental health and wellbeing. Research findings have verified [10], negated [11] and proven to a limited extent [12] the assumption of curvilinearity between working conditions and mental wellbeing. The Vitamin model's curvilinearity assumption can therefore also be used as a theoretical stance to assess non-linear relationships between job characteristics and work – based identity. Further studies are required to assess curvilinearity between psychosocial job characteristics and wellbeing [10].

Work-based identities (individuals' identification with their job, occupation, career, work setting and employer) play a decisive role to ensure the individual's successful integration into work settings and the labour market [13]. Work-based identity is developed through a complex negotiation process between an individual's personal resources and work characteristics [13]. Work characteristics can be divided into two broad categories: job demands and job resources, as postulated in the JD-R model.

For the purposes of this study, work-based identity is defined as: "a work-based self-concept constituted of a combination of organisational, occupational, and other identities that shapes the roles individuals adopt and the corresponding ways they behave when performing their work in the context of their jobs and/or careers" [14]. As work-based identity is characterised as being multifaceted and complex, it is indicated by an array of indicators such work centrality, job involvement, organisational identification, person-organisation fit, job and career/occupational identity in this study.

Job demands is referred to as "those physical, psychological, social or organisational aspects of a job that require sustained physical and/or psychological (cognitive and emotional) effort or skills and are therefore associated with certain physiological and/or psychological costs" [15]. In a study by [4] job demands had a weak linear relationship with work based identity. No studies have shown that a non-linear relationship exists between JD and WBI. However, a curvilinear relationship has been found between job demands and several job-specific mental wellbeing variables [9].

Based on the aforementioned discussion, the following research hypotheses are formulated:

H1: Job demands have a non-linear relationship with work-based identity.

Job Resources on the other hand, are “those physical, psychological, social or organisational aspects of a job that either/or (1) reduce job demands and the associated physiological and psychological costs; (2) are functional in achieving work goals; and (3) stimulate personal growth, learning and development” [16]. As stated earlier, job resources are part of the motivational process that underlines the JD-R model. Through an organisation providing a broad spectrum of resources to its employees, the employment relationship takes on the significance of a personal relationship [17]. This, according to [18] blurs “the boundaries between the interests of the self and other, initiating the formation of deep structure identification.” Job resources are also considered to be crucial for employee retention [8]. In a study by [4] job resources had a strong significant linear relationship with work based identity. No previous studies have shown a non-linear relationship between JR and WBI. Small curvilinear associations have been found between social support, decision latitude (job resources) and mental wellbeing [11].

Based on the aforementioned discussion, the following research hypotheses are formulated:

H3: Job resources have a non-linear relationship with work-based identity.

RESEARCH DESIGN

The research design is discussed under the following two headings.

Research approach. The study follows the quantitative research tradition. A cross-sectional survey was used to generate primary data. Correlational data analysis techniques were applied in conducting the data analysis.

Research method. The research method is discussed under the four subheadings below.

Participants and sampling. A census-based approach was followed to survey the population of employees ($N = 23\ 134$) who were in the employ of a large ICT company in South Africa. A response rate of 10, 5% yielded a sample of 2 429 research participants.

Measuring instruments. Besides capturing the biographic and demographic particulars of the participants, two further measuring instruments were included in the survey. Job demands and job resources. The job demands and job resources were measured with the 44 item Job Demands-Resources Scale (JD-RS) that was developed by Jackson and Rothmann in 2005 [19]. Previous studies reported internal reliable consistencies for the JD-RS that varied between $\alpha = 0.76$ to 0.92 [19] and are supportive of the JD-R model of [20]. The following job demands were included in the instrument with accompanying internal consistency reliabilities: 3 items on *job insecurity* ($\alpha = 0.89$) [19] from the JD-RS were adapted, 8 items on *overload* ($\alpha = 0.76$) [19] from the JD-RS were adapted and 5 items from a *work-family conflict* scale of [21] ($\alpha = 0.86$). The following job resources were included in the study: 6 items on *advancement*

were adapted from the JD-RS ($\alpha = 0.86$) [19], 7 items on *growth opportunities* were adapted from the JD-RS ($\alpha = 0.86$) [19], 18 items on *organisational support* were adapted from the JD-RS ($\alpha = 0.92$) [19]; 5 items on *perceived external prestige* were adapted from [22] ($\alpha = 0.90$); 2 items on *task identity* were adapted from [23] ($\alpha = 0.94$) [24]; and 6 items on *team climate* were adapted from [25] ($\alpha = 0.88$). Work-based identity scale: Items were sourced from different scales and adapted to measure work-based identity, namely *person-environment fit* [26], *organisational identification* [27] and a *work-related identity* adapted from [28], [29] and [30]. The items were grouped according to different work-related identification foci, namely work (6 items), job (8 items), occupation/career (3 items), organisational (9 items) and person-environment fit (2 items). The future dimension initially included, was omitted during the factor analysis. This dimension consisted of 5 items. The 36-item questionnaire was factor analysed on a first and second level to determine the factor structure. This resulted in the creation of the 28-item, uni-dimensional Work-based Identity scale [31].

Research procedure. An e-invitation letter was sent out to all permanent employees, up to middle management of the ICT company. The invitation included a web-link for access to the survey. The survey was constructed in such a manner that participants could complete sections of the survey at a time, before submitting their final response.

Statistical analysis. The SPSS programme was used to conduct the statistical analysis [32]. The following statistical techniques were used: factor and reliability analyses, Pearson correlations, regression analysis to detect non-linear relationships in which the original linear regression equation (i.e. $Y = b_0 + b_1X$) was estimated. Thereafter the curvilinear relationship (original equation plus polynomial - i.e. $Y = b_0 + b_1X + b_2X^2$) was estimated. A cubic model was also estimated ($Y = b_0 + b_1X + b_2X^2 + b_3X^3$). The change in the R^2 was assessed, after estimation was made. In order to test if the variables have a non-linear relationship, two tests were carried out, one with each variable being the X and Y variable. This was done for both JD and JR.

RESULTS

Factor and reliability analyses. Single factor structures were obtained for all scales and acceptable reliabilities (ranging from 0.79 to 0.96) were obtained for all sub-scales and for the overall scales.

Intercorrelations. In terms of intercorrelations, the job demands overload is statistically significantly positively related work-based identity, $r(2428) = 0.121$ ($p \leq 0.001$). Job insecurity is positively related to work-based identity, $r(2428) = 0.263$ ($p \leq 0.001$). Work-family conflict is significantly negatively related to work-based identity, $r(2428) = -0.040$ ($p \leq 0.05$). Overall, all the job demands subscales yielded a weak relationship with work-based identity, $r(2428) = 0.170$ ($p \leq 0.001$).

In terms of job resources, growth opportunities is statistically and significantly, positively related to work-based identity, $r(2428) = 0.512$ ($p \leq 0.001$). Organisational support is significantly, positively related to work-based identity, $r(2428) = 0.505$ ($p \leq 0.001$). Advancement is significantly, positively related to work-based identity, $r(2428) = 0.346$ ($p \leq 0.001$). Task identity is positively related to work-based identity, $r(2428) = 0.305$ ($p \leq 0.001$). Perceived external prestige is positively related to work-based identity, $r(2428) = 0.462$ ($p \leq 0.001$). Team climate was also statistically, significantly, positively related to work-based identity, $r(2428) = 0.483$ ($p \leq 0.001$). Overall, all the job resources subscales yielded a strong relationship with work-based identity, $r(2428) = 0.617$ ($p \leq 0.001$).

Non-linear relationships between job demands and work-based identity.

The relationship between JD as the predictor variable and WBI as the dependent variable yielded the following results:

The linear relationship, $R^2(2427) = 0.023$ ($p \leq 0.000$), was significant. The non-linear quadratic term did not have an additional value over the linear model. There was no significant F-change.

In terms of the relationship between WBI as the predictor variable and JD as the dependent variable yielded the following results:

The linear relationship, $R^2(2427) = 0.023$ ($p \leq 0.000$) was significant. The regression coefficient of the quadratic term indicated a curvilinear relationship between JD and WBI, $R^2(2427) = 0.025$ ($p \leq 0.000$). This accounted for an additional 2% of the variance, in predicting JD [$F(5.489) = 30.864$, $p \leq 0.000$]. A B coefficient of 0.034 indicated a positive u-shaped relationship. Although the relationship is significant, the R^2 is low, thus depicting a minimal quadratic effect.

Non-linear relationships between job resources and work-based identity.

The relationship between JR as the predictor variable and WBI as the dependent variable yielded the following results:

The linear, $R^2(2427) = 0.394$ ($p \leq 0.000$) was significant. The regression coefficient of the quadratic term indicated a curvilinear relationship between JR and WBI, $R^2(2426) = 0.395$ ($p \leq 0.000$). This accounted for an additional 1% of the variance, in predicting WBI [$F(4.361) = 793.485$, $p \leq 0.000$]. A B coefficient of 0.029 indicated a positive u-shaped relationship. Although the relationship is significant, the R^2 is low, thus depicting a minimal quadratic effect.

The relationship between WBI as the predictor variable and JR as the dependent variable yielded the following results:

The linear $R^2(2427) = 0.394$ ($p \leq 0.000$) was significant. The regression coefficient of the quadratic term indicated a curvilinear relationship between WBI and JR, $R^2(2426) = 0.396$ ($p \leq 0.000$). This accounted for an additional 1% of the variance, in

predicting JR [$F(4.742) = 793.799$, $p \leq 0.000$]. A B coefficient of 0.026 indicated a positive u-shaped relationship. Although the relationship is significant, the R^2 is low, thus depicting a minimal quadratic effect.

DISCUSSION

In terms of *H1: Job demands have a non-linear relationship with work-based identity.*

This expectation was met. A non-linear relationship was found for JD as the predictor of WBI. This finding provides support for the Vitamin model's assumption of curvilinearity between job characteristics and wellbeing. Therefore JD predicts WBI both on linear and non-linear terms.

In relation to WBI predicting JD, a non-linear relationship was also found. This relationship is interesting, as it implies that an individual's work identity may be in a negative state that it becomes a job demand requiring sustained physical and/or psychological effort or skills on behalf of the employee to work. This requires further empirical investigation.

With reference to H2: Job resources have a non-linear relationship with work-based identity.

This expectation was also met. A non-linear relationship was found for JR as the predictor of WBI. Therefore JR predicts WBI both linearly and non-linearly. This finding provides support for the Vitamin model's assumption of curvilinearity between job characteristics and wellbeing. This finding also clearly supports the notion that job resources as a work characteristic plays a significant role in work identity [33] and vice versa.

In relation to WBI predicting JR, a non-linear relationship was also found. This implies that a person's WBI can be regarded as a job resource that enables an individual to cope better with job demands, to achieve work goals and to develop. This requires further empirical investigation. A longitudinal study may prove to be useful to derive more understanding of this - where JR predicts WBI which in turn, allows WBI to become a job resource that strengthens WBI, thus leading to the formation of deep structure identification [18].

Conclusion

Both job demands and job resources have small non-linear relationships with work-based identity respectively. This study is the first to test the assumption of curvilinearity between JD and WBI and between JR and WBI. These relationships however, require more empirical investigation. On a practical level, curvilinear associations between job characteristics and wellbeing require companies to introduce policies to improve psychosocial working conditions [11]. It is proposed that work identities impact an individual's job performance and turnover intentions [14]. This, thus impacts an organisation's competitiveness.

References

The full list of references is available upon request.

Employee's Acceptance Attitudes toward Organization's Efforts

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ABSTRACT

This study proposes a conceptual framework to derive a specific sequential process of employee performance on the organizational efforts through the acceptance attitude and two psychological states of the employee (Burnout and Work engagement). Based on inductive reasoning from the affective-cognitive ambivalence theory, we initially categorized acceptance attitude into four types as follows: a positive univalent attitude (Affective+/Cognitive+), a negative univalent attitude (A-/C-), a cognition-effected ambivalent attitude (A+/C-), and an affection-effected ambivalent attitude (A-/C+). We assume that employees are likely to react differently on the organizational efforts of organizations, and each attitude would have different consequences.

Introduction

In a fierce competitive environment, many organizations are required to change in order to meet customer expectations or demands and not to fall behind the competition. However, the employees, simultaneously, are faced with a lot of the organizational efforts for survival in that competition. Adapting to changing goals and demands has been a timeless challenge for organizations because successful organizational adaptation depends on employees' acceptance toward the efforts; the attempts are likely to act as the heavy burden to them and generate their resistance to the organizational efforts [10]. To precisely know the effects of the given organizational efforts on employees' performances, hence, it is considerably important to shed light on the acceptance attitudes toward the proposed organizational efforts and the following psychological states.

Multiple Dimensions of Attitudes

Through previous attitude literatures, we figure out that attitudes have been defined at the unidimensional level, so people have been asked to rate the positivity or negativity of their positivity or negativity of their feelings toward

everything from attitudinal objects [18]. Moreover, attitude researchers have almost universally make the implicit assumption that attitudes can be represented in terms of a single, bipolar (positive-negative) dimension [8]. Increasingly, however, investigators have acknowledged the likelihood that some attitudes are ambivalent or characterized by the co-existence of both positive and negative evaluations [11]. This likelihood has also been expressed in management literature that researches have largely overlooked the potentially positive intentions of the organizations that may motivate negative response to change and have dichotomized responses to change, somewhat oversimplified [10]; more specifically, employees' acceptance attitudes could be expressed with combinations between a cognitive and an affective dimension of attitude. It means that there exists ambivalence between two dimensions, as well as within them respectively.

The concept is derived from the tripartite model of attitude in the realm of psychology [12]. In the tripartite view, attitude consists of three dimensions: cognition, affect, behavior. The cognitive dimension of attitude are defined as beliefs which express positive or negative evaluation of greater or lesser extremity, and occasionally are exactly neutral in their evaluative content [12]. The affective dimension refers to an individual's feelings in response to the attitude object [10]. Lastly, the conative (behavioral) dimension reflects an individual's evaluations of an attitude object that are based in past behaviors and future intentions to act [4]. According to Piderit [10], employees' responses can have both positive and negative attitude at a cognitive dimension and an affective one. Thus, an employees' response to an organizational efforts based on the cognitive dimension might range from strong positive beliefs (i.e. "these organizational efforts are essential for the organization to succeed") to strong negative beliefs (i.e., "These efforts could ruin the company"). An employee's response along the affective dimension might range from strong positive feelings (e.g.

excitement, happiness) to strong negative feelings (e.g. anger, fear). However, the third dimension of attitude tends to be a different one as compared to the other ones, and outcomes of the cognitive and affective reactions [15]. Therefore, an intentional (behavioral) dimension should be separated from the other ones, and it is also likely to indicate ambivalence derived from the conflict between a cognitive and an affective dimension of attitude. We'll discuss it in later part of this article.

Univalent Affective-Cognitive & Ambivalent Affective-Cognitive Attitude

As stated above, the attitudes we form and express are likely to be influenced both by the emotions (an affective dimension) and by a rational/logical assessment of the attitude object's attributes (a cognitive dimension) [6]. Due to two different influences, a conflict between them makes it difficult to figure out the following consequences, except the cases where both are either all positive or all negative. Of course, while there are empirical evidences in psychology literatures that conflicting with cognition, affect is likely to predominate over cognition [8], researches in management literature have only theoretically indicated consequences of the conflicts [11][15].

Considering previous researches about attitude, we conclude that attitude is composed with combination of two dimensions (cognitive, affective). Lavine et al. [8], in their research, separate attitude into *univalent affective-cognitive attitude* which means that respondents' feelings and beliefs about a given attitude object are either both positive or negative, and *ambivalent affective-cognitive attitude*, which represents that respondents' feelings and beliefs about a attitude object are ambivalent. The former consists of A+/C+ (a positive affection and a positive cognition) and A-/C- (a negative affection and a negative cognition). The latter is composed of A+/C- (a positive affection and a negative cognition) and A-/C+ (a negative affection and a positive cognition). In this study, we name those four types of attitudes respectively as follows: *a positive univalent attitude (A+/C+)*, *a negative univalent attitude (A-/C-)*, *a cognition-effected ambivalent attitude (A+/C-)* and *an affection-effected ambivalent attitude (A-/C+)*.

However, the problem is the possibilities where ambivalence exists within a cognitive and an affective dimension respectively [2][10]. Nevertheless, we have three reasons why we define acceptance attitude as just four types. First of all, the results of researches which expressed a possibility of ambivalence within respective dimensions are not able to be generalized to business situation because the attitude object in psychology literature [13] was not the organizational efforts. Secondly, studying employees' attitude on the organizational efforts, they did not empirically prove. Lastly, a previous research [10] represented a different dimension of cognitive ambivalence. For instance, an employee exhibiting cognitive ambivalence might simultaneously believe that the change proposed in his or her organization is necessary for its future survival but is not yet sufficiently well researched, but according to psychology literature, the unnecessary for the proposed change is the opposite poles of the necessity for the change, not an insufficient research.

Burnout versus Work Engagement

Four types of acceptance attitude are likely to bring about the different following consequences. The related evidence has accumulated in support of proposition that ambivalent attitudes are based upon discrepant evaluations should lead to a decrease in attitude-intention consistency [17], and that ambivalent and nonambivalent (univalent) attitudes may have quite different psychological consequences [7]. In other words, it is desirable that the following consequences of the acceptance attitude be consisted of antithetic concepts which are psychological states including a job-related affective component (e.g. fatigue, anxiety, energy, enthusiasm) derived from sustained acceptance attitudes, and an attitudinal component (e.g. unwilling to do or willing to do) which results from an affective one. This is because the proposed acceptance attitudes are just cognitive and affective perception toward attitude objects without any intentional aspects.

Burnout and work engagement are the psychological states to meet the conditions that we mentioned above. Both result from the sustained attitudes formed by assessments and emotions toward attitude objects [3][16].

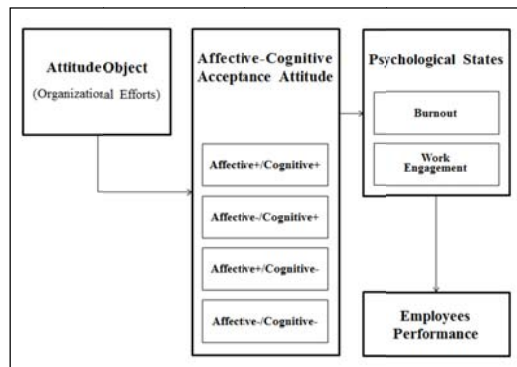
Burnout is a metaphor that is commonly used to describe a state of mental weariness [14]. Originally, burnout was considered to occur exclusively in the human services among those who do 'people work' of some kind, but gradually it became clear that burnout also exists outside the human services, and finally new version (MBI-General Survey: MBI-GS) was introduced [9]. The MBI-GS consists of three dimensions: *Exhaustion*-measures fatigue without referring to other people as the source of one's tiredness. *Cynicism*- reflects indifference or a distant attitude towards work in general, not necessarily with other people. Finally, *professional efficacy*-encompasses both social and non-social aspects occupation accomplishment [14].

Work engagement is assumed to be the positive antipode of burnout [14]. It is also composed of three dimensions: *Vigor* -high levels of energy and mental resilience while working. *Dedication*-a sense of significance, enthusiasm, inspiration, pride, and challenge. *Absorption*-being fully concentrated and happily engrossed in one's work, whereby time passes quickly and one has difficulties with detaching oneself from work [5].

Recent research suggests, however, vigor and dedication constitute the core dimensions of engagement and exhaustion and cynicism are the essence of burnout. More specifically, it seems that vigor and dedication are the opposite poles of the burnout dimensions of exhaustion and cynicism, respectively, whereby vigor and exhaustion span a continuum labeled "energy", and dedication and cynicism span a continuum labeled "identification" [5]. So, we use this concept as the following consequences playing a mediating role in relationship between acceptance attitude and employees' performance.

In conclusion, we propose a conceptual framework to figure out a specific sequential process about employee's performance on the organizational efforts via employees' acceptance attitude and two psychological states (Burnout and Work engagement) (see figure 1).

FIGURE 1 A CONCEPTUAL FRAMEWORK



REFERENCES

- [43] Ashill, N.J., Carruther, J., & Krisjanous, J. Antecedents and outcomes of service recovery performance in a public health-care environment, *Journal of Service Marketing*, 2005, 19(5), 293-308.
- [44] Conner, M., & Sparks, P. Ambivalence and Attitude, *European Review of Social Psychology*, 2002, 12(1), 37-70.
- [45] Evers, W.J.G., & Tomic, W. Burnout and self-efficacy: A study on teachers' beliefs when implementing an innovative educational system in the Netherlands, *British Journal of Educational Psychology*, 2002, 72, 227-243.
- [46] Gilbert, D., Fiske, T., & Lindsey, G. *Handbook of Social Psychology*, 2, 269-322. Boston: McGraw-Hill. 1998.
- [47] Hakanen, J.J., Bakker, A.B., & Schaufeli, W.B. Burnout and work engagement among teachers, *Journal of School Psychology*, 2006, 43, 495-513.
- [48] Hamilton, D.L. & Mackie, D.M. *Affective, cognition, and stereotyping: Interactive processes in group perception*, San Diego: Academic Press. 1993.
- [49] Jonas, K., Broemer, P., & Diehl, M. Attitudinal Ambivalence, *European Review of Social Psychology*, 2000, 11, 35-74.
- [50] Lavine, H., Thomsen, C.J., Zanna, M.P., & Borgid, E. On the Primacy of Affect in the Determination of Attitudes and Behavior: The Moderating Role of Affective-Cognitive Ambivalence, *Journal of Experimental Social Psychology*, 1998, 34, 398-421.
- [51] Maslach, C., Jackson, S.E., & Leiter, M. *Maslach Burnout Inventory: Manual* (3 rd ed.)_Palo Alto, CA:Consulting Psychologist Press. 1996.
- [52] Piderit, S.K. Rethinking Resistance and Recognizing Ambivalence: A Multidimensional View of Attitudes toward an Organizational Change, *Academy of Management Review*, 2000, 25(4), 783-794.
- [53] Petty, R., & Krosnick, J. *Attitude strength: Antecedents and Consequences*: 249-269, 1995.
- [54] Rogenberg, M.J. *Attitude organization and change*: 1-14, New haven, CT: Yale University Press. 1960.
- [55] Russell, J.A. A circumplex model of affect, *Journal of Personality and Social Psychology*, 1988, 39(6), 1161-1178.
- [56] Schaufeli, W.B., & Bakker, A.B. Job demands, job resources, and their relationship with burnout and engagement: a multi-sample study, *Journal of Organizational Behavior*, 2004, 25, 293-315.
- [57] Smollan, R.K. Minds, Hearts and Deeds: Cognitive, Affective and Behavioral Responses to Change, *Journal of Change Management*, 2006, 6(2), 143-158.
- [58] Snyder, C.R., & Lopez S.J. *Handbook of positive psychology*: 106-119, Oxford, UK: Oxford University Press. 2002.
- [59] Sparks, P., Hedderly, D., & Shepherd, R. An investigation into the relationship between perceived control, attitude variability and the consumption of two common foods, *European Journal of Social Psychology*, 1992, 22, 55-71.
- [60] Wilson, T.D., Lindsey, S., and Schooler, T.Y. A Model of Dual Attitudes, *Psychological Review*, 107, 101-126.

Environmental Concern on Detergent Usage: Exploring the Knowledge among Indonesian Consumers

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ABSTRACT

At present day, detergent has become one of the products that can not be separated from household. For several years, detergent has accompanied the necessity of cleanliness and freshness of its users. Many advance chemical technology have been found to accelerate the performance of washing by using detergent; from whitening, softener, sun-cell technology, into liquid based detergent. Technology improved, but often does not coincide with the development of consumer knowledge on how it is used. In Indonesia, watery system is increasing in domestic pollution level for the last decades. There are more than 60 of total 470 watersheds that placed all around Indonesian is in critical condition. Majority of the causes are domestic waste such as laundry and other cleaning activity waste. From those numbers, Java region is becomes the major contributor for 26 watersheds have been critically damaged.

An exploratory research was carried out in West Java (Bandung city) in order to evaluate the knowledge of Indonesian consumer in using detergent and also their environmental awareness.

The qualitative analysis showed that product-based experience, knowledge of use, environmental awareness, needs, and communication of each parties are key variables that affect the knowledge of detergent users in Indonesia.

This research will provide suggestion for marketing researchers, marketing managers, and public policy-makers to make green marketing approach in developing consumer's awareness for detergent utility in order to decrease, or avoid, environmental effect of detergent.

Keywords : *environmental awareness, consumer knowledge, detergent, green marketing.*

INTRODUCTION

Almost the majority of environmental causes that happen from utilizing detergent are comes from user's behavior. These behaviors derived from various sources of communication between the users and brand. There are many example of this negative behavior that affected to the sustainability of

environment, such as: litter waste. Ironically some of these behaviors resulted from the increasing number of detergent utility and development of the technology within the product. That is why behavior of detergent users' are interesting to be depicted, for finding what is the main reason of why users' are having those kind of behavior in utilizing detergent as means of washing. Based on the background of research, the problem can be expressed as in what way consumer's or user's behavior become a cause for any environmental damage caused by utilizing detergent product as means of washing and cleaning? Then, the research questions can be formulated as follow :

1. What factors did influence consumers' action for using detergent?
2. What is the cause of user's behavior toward detergent product?
3. What is the effect of user's behavior in utilizing detergent?
4. What is user's method (way to do things) in utilizing detergent?

LITERATURE REVIEW

Environmental Awareness and Consumer Knowledge

Environmentally responsible consumer behavior relates to consumption activities that benefit, or cause less harm to the environment than substitutable activities. Hence, consistent with the focus of sustainable consumption, which is concerned with the economic activity of choosing, using and disposing goods and services and how this can be changed to bring social and environmental benefits, consumers can behave in a more environmentally friendly way by changing the patterns they use to acquire, utilize and dispose of goods or products.

Some research on environmentally conscious behavior has examined various factors that influence such behavior, such as environmental knowledge, or one's ability to understand and evaluate the impact of society on the ecosystem. According to Kaplan, the state of one's knowledge about an issue impacts significantly upon decision making. Specifically, people dislike, and thus tend to avoid situations where they have insufficient knowledge to guide their

behaviour and where the possibility of confusion is great.

The importance of knowledge and the impact of lack of knowledge in the decision-making process have been demonstrated in numerous studies. For example, environmental awareness and behaviours were found to be influenced by values, attitudes and knowledge.

However, Barkmann and Bögeholz cautioned that, although environmental knowledge is a necessary precondition for environmental action, the extent of its influence can be questionable because first, some daily environmentally supportive actions such as saving energy or reducing waste in the households can be carried out as a matter of habit, which does not require environmental knowledge. Second, the environmental knowledge measured may not be relevant to the environmental action sampled.

Unfortunately, in the case of Indonesia, awareness of the importance of detergent usage and its effect to environment is still very low.

Examining in detail the factors that influence knowledge of scientific and environment facts, Gendall found that demographic factors influenced the level of environmental knowledge in six European centres. Specifically, men tended to have more knowledge than women; younger people tended to be more knowledgeable than older people; and the higher the level of education, the higher the level of knowledge. Also, Chinese teenagers were found to be more knowledgeable about environmental issues compared with Malays and Indians.

RESEARCH METHODOLOGY

The research is exploratory using qualitative method. The data collection of research itself was collected with both of ethnographic approach and focus group discussion, with further secondary data from in-depth interview with expert. A protocol for the interview and focal point questions is prepared prior to data collection.

DATA ANALYSIS

The data is analyzed based on the content of transcript interview, which involving a continues process of noting pattern, explanation, possible configuration, and causal flows. Here are the findings:

Focus group discussion showed some key factors that affect the relationship level of detergent product and its users in Indonesia. They are product-based experience, knowledge of use, environment awareness, and communication.

Product-based experience

As Rinso have become a top-of-mind product for Indonesia market, many detergent users in Indonesia have strong product-based experience. This makes them loyal and continually using those products

whatever it cause for environmental or themselves. When they found information that tells the danger of detergent, it not moves them for shifting the use of those products. In other study cases, the majority of detergent users in Indonesia are having the tendency to easily shift for other brand promotion. This compared two cases could tells that their loyalty are not constructed for the brand only, but more towards the loss and profit in using. They have tendency to shift their loyalty to fulfilling their greater needs. For example is the case of compared bonus-no bonus product. In that case, they have tendency to prefer product with more benefit whatever the brand is.

By recalling this tendencies, this focus group discussion found that by giving the user additional needs of safety and clean environment could developing their awareness of environmental issue. Inserting additional value of environmental friendly within product's economical benefit would make consumers more receptive for environmental benefit.

Knowledge of use

This motivation for economical benefit could be seen from their knowledge of use for achieving more efficiency from laundering activity. They would educating themselves detailed for how to make use of the product for more period of time, but less interested for noticing the notes contain scientific content that contained in the product.

Environmental awareness

The economical benefit usually shadowed consumer's environmental awareness for the product. They know that the water used after laundering activity is not healthy to be consumed for example, but they found that is okay for them to dispose the waste in the watery system.

Communication

The consumer thought about disposing the waste in the watery system is caused by the lack of communication that existed between producers, distributors, and consumers. Detergent targeted segment was basically housewives and housemaid, and usually they are not well educated or only attend compulsory education.

From the analysis founded that consumer's lack of awareness are not caused by lack of understanding on the input information of the product. Also in Indonesia, this kind of information and education is exclusively limited to university level of education. Environmental education have started late in Indonesian school education system, in fact there are no type of education at all in several high school level education. Moreover, the company behind the product rarely conducts integrated communication with their consumers, especially educated and low educated level consumers, about their product's side effect. It is understable that no brand would like to make an advertising about how bad its product damaging environment, even less personally tells them to

reducing the use of their product to decrease the probability of environment pollution.

CONCLUSION

- There are factors that influence consumers' action, which are : product based experience, knowledge of use, environment awareness, and communication.
- There are causes of behavior which user implemented in utilizing detergent is basically based on their level of needs. The needs could be divided into several factors, they are : economical benefit needs, efficiency needs, needs of image, needs of information, and hygiene based needs. There is lack of environmental based needs in their implementation.
- The effect of user's behavior could be divided into two sections, direct and indirect effect. Hygiene, cleanness, and efficiency are positive direct effect that derived directly from the behavior of users in utilizing detergent. Direct negative effect from this behavior could result in irritation, waste of water, and lack of information. Image and environmental issues would be the indirect effect of users' behavior for in the future those two factors could be resulted in implementing detergent in washing.
- The research show that users are having lack of information around environmental issue. Information from both packaging of product and advertising did not give sufficient access to current situation and information.

REFERENCE

- [1] Berger, Ida. E. and Ruth M. Corbin (1992), "Perceived Consumer Effectiveness and Faith in Others as Moderators of Environmentally Responsible Behaviors," *Journal of Public Policy & Marketing*, 11 (Fall), 79-89
- [2] Chan, T. S. (1996), "Concerns for Environmental Issues and Consumer Purchase Preferences: A Two-Country study," *Journal of International Consumer Marketing*, 9, 43-55.
- [3] Dietz, Thomas, Paul C. Stern, and Gregory A. Guagnano (1998), "Social Structural and Social Psychological Bases of Environmental Concern," *Environment and Behavior*, 30 (July), 450-471.
- [4] Robin, N. & Roberts, S. (1998) "*Consumption in a Sustainable World*"

[www.document]. URL
<http://www.iied.org/smg/pubs/work-bk2.html>.

- [5] Hines, Jody M., Herald R. Hungerford, and Audrey N. Tomera (1987), "Analysis and Synthesis of Research on Responsible Environmental Behavior: A Meta-Analysis," *Journal of Environmental Education*, 18, 1-8.
- [6] McCarty, John A. and L. J. Shrum (1993), "A Structural Equation Analysis of the Relationships of Personal Values, Attitudes and Beliefs about Recycling, and the Recycling of Solid Waste Products," in *Advances in Consumer Research*, Vol. 20, L. McAlister and M. Rothschild, eds., Provo, UT: Association for Consumer Research, 641-646.
- [7] Ottman, Jacquelyn (1992), "Industry's Response to Green Consumerism," *Journal of Business Strategy*, 13 (July/ August), 3-7.
- [8] Stern, Paul C., Thomas Dietz, and Linda Kalof (1993), "Values Orientations, Gender, and Environmental Concern," *Environment and Behavior*, 25 (May), 322-348.

A Feasibility Study on Eco-Friendly Mobile Phone with Polymer Electrolyte Fuel Cell (PEFC): Case Study in Indonesia

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ABSTRACT

Objectives – This study aims to know how the global warming issued and benefit of new eco-friendly cell phone will affect consumer's purchase intention.

Research design/methodology – This study uses 3 shot lab experimental design. Respondents were given the information about: [1] cause and effect of global warming, [2] benefit of eco-friendly cell phone, and [3] price. After that, they have to fill the questionnaire about their perception and their purchase intention on eco-friendly cell phone.

Findings – The result indicates that consumer has good willingness to buy this product, but it will decrease when they face the expensive price.

1. INTRODUCTION

Global warming is the increase in the average temperature of earth's near-surface air and oceans since the mid-20th century, and its projected continuation. Global surface temperature increased and most of the observed temperature would rise up because of increasing concentrations of greenhouse gases of CO₂, N₂O, and CH₄ etc., which result from human activity such as the burning of fossil fuel and deforestation. Since the Kyoto protocol has come into effect in 2005, the technology on CO₂ emissions mitigation has developed significantly. As a result, many developed countries have tried to adopt new technology to decrease the concentration of greenhouse gases. They start using alternative energy that is not harmful to the environment. The installation of new infrastructure in developing country is also needed. However, the cost is very high. Unfortunately, there's a financial crisis in the world today, so that the budget to do that become very limited. In this research, we try to install a new system in cell phone with a lower budget to get CO₂ benefit.

A mobile phone is an electronic device used for two-way radio telecommunication over a cellular network of base stations known as cell sites. The sale of mobile phones has been one of the fastest growing markets in the world today. For comparison, only 27% of US citizens used cell phone in 1999, but now, around 85% people in America have used cell phone.

In addition, new technology of mobile communication is being developed very quickly. For example, few years ago people use their cell phone just for making a call or sending an SMS, but now there are a lot of feature of cell phone such as music player, video player, game, chatting, internet browsing, email, etc. This factor will increase energy consumption, which contribute in increasing CO₂ emission.

The current power supply systems in cell phones are dominated by Li-ion battery, which has some advantage such as wide variety of shapes/sizes without a memory effect. But now, the rapidly advancing needs for mobile communication are increasing the consumer demand for portable application with even higher power output, longer operation time, smaller size, and lighter weight. Li-ion and other rechargeable battery system are not suitable for high power and long time span portable devices due to their lower energy density, shorter operational time, and safety. Li-ion batteries are well established as a power supply for portable devices. However, since the power demand has been increasing faster than battery capabilities, the fuel cells have become a promising alternate for niche applications.

A fuel cell is an electrochemical device that continuously converts chemical energy into electric energy (and some heat) for as long as fuel and oxidant are supplied (Hoogers 2003). A fuel cell power supply can make electronic devices much lighter, due to higher energy content per unit mass than conventional batteries. A fuel cell is virtually maintenance free, whereas the battery needs to be replaced periodically. The main disadvantage of a battery system is that the voltage of the battery degrades with a decrease in charge, while the fuel cell system can maintain a constant voltage. Battery performance is also severely affected by operating at low temperatures, while this is not the case for a fuel cell system (Rashidi et al. 2009). Also, the using of fuel cell system is not harmful to the environment, if compared with Li-ion battery.

From an economic point of view, the demand for portable fuel cells can be considered a twice-derived demand: output-derived and energy-services-derived

demand. As these fuel cells will be used in conjunction with other consumer products, e.g. mobile phones, their demand depends on the sales of these products. Nowadays, the sales of cell phone are growing rapidly, so this condition would affect in increasing CO₂ emission. Li-ion battery is not clean for the environment, because the conventional electricity is generated by fossil fuels. The replacement of Li-ion battery to fuel cell system is needed to reduce CO₂ emission. In addition, there is a gap between power supply and demand. Today, the consumers need the bigger average power demand of electronic devices. Also, the dependency of users and the amount of time spent on these devices has increased (Agnolucci 2007). Due to the reasons above, fuel cells become a promising technology.

In this research, Polymer Electrolyte Fuel Cell (PEFC) is applied to replace Li-ion battery. In the prior study, the comparison of CO₂ emission between Li-ion and PEFC cell phone has been calculated using Life Cycle Assessment (LCA) methodology. The result is shown in the following table:

Table 1. CO₂ Emission Reduction by Installation PEFC System

Age	Total CO ₂ Emission [kg-CO ₂ /cycle]			CO ₂ Reduction - compared with Li-ion Cell Phone [%]	
	Li-ion Cell Phone	PEFC with Bio-H ₂	PEFC with Bio-Syngas	PEFC with Bio-H ₂	PEFC with Bio-Syngas
15 - 19	29.94	22.77	20.28	24.00%	32.30%
20 - 24	28.46	21.78	19.92	23.50%	30.00%
25 - 29	24.76	20.24	19.35	18.20%	21.80%
30 - 34	27.08	21.61	19.85	20.20%	26.70%
35 - 39	23.86	19.95	19.24	16.40%	19.40%
40 - 44	22.16	19.49	19.07	12.00%	13.90%
45 - 49	23.48	19.77	19.17	15.80%	18.40%
50 - 54	22.09	19.46	19.06	11.90%	13.70%
> 54	21.96	19.43	19.04	11.50%	13.30%
Average	24.87	20.5	19.44	17.60%	21.80%

This research is conducted for Indonesian market. Indonesia, a country in Southeast Asia and Oceania with 238 million people, is the world's fourth most populous country. Although Indonesia is a developing country, Indonesia has become a potential market for a mobile phone company. Now, Indonesia ranks sixth in number of mobile phone and about 73.1% population in Indonesia has mobile phone. From the prior study, assuming that the holding time of user which is defined as 1 cycle is 3.2 years, by using new PEFC system, we would be able to reduce in average 5.43 kg-CO₂ emission/cycle against the conventional case. This significant result becomes good potential to promote PEFC cell phone in Indonesia. However, the cost of PEFC system is Rp 3,600,000 more expensive than the conventional one. To promote the PEFC system, in this research we would like to make a feasibility study on eco-friendly mobile phone with PEFC. The respondents with age between 20-24 years old were chosen to become sample in this study.

2. THEORITICAL FRAMEWORK

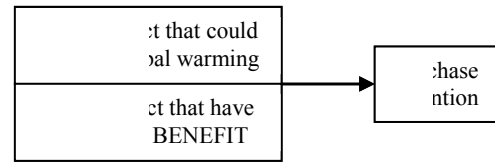


Figure 1. Theoretical Framework

H₁: The new cell phone product that could prevent global warming will positively affect consumer's purchase intention ($\beta > 0$).

H₂: The new cell phone product that have significant benefit will positively affect consumer's purchase intention. ($\beta > 0$).

H₃: Significant benefit will increase consumer's perception on new cell phone product ($\mu_{x2} > \mu_{x1}$).

H₄: Significant benefit of new cell phone product will increase consumer's purchase intention ($\mu_{y2} > \mu_{y1}$).

H₅: The expensive price will decrease consumer's purchase intention ($\mu_{y3} < \mu_{y2}$).

3. RESEARCH DESIGN

This research used lab experiment with 1×3 design that can be seen in the following figure:

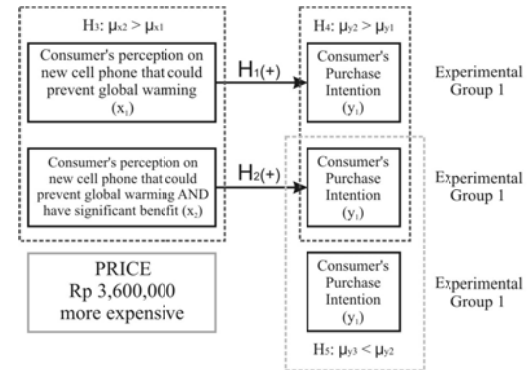


Figure 2. Experimental Design

A total of 131 respondents participated in this study. For every respondent, there are 2×4 questions to measure consumer's perception on eco-friendly cell phone and 3×4 questions to measure consumer's purchase intention. In the first part of questionnaire, respondents were given the explanation about the cause and effects of global warming. In the second part, they were also given the information about the benefit of new cell phone, such as longer duration time per 1 charging cycle and maintenance free. And in the last part, they were given the information about the price: Rp 3,600,000 more expensive than the conventional one. They have to fill the questionnaire about their perception and their purchase intention on new eco-friendly cell phone in every parts.

The questionnaire is designed by using seven point semantic differential scale for consumer's perception and seven point Likert scale for consumer's purchase intention.

The validity is tested using factor analysis. If the KMO score is greater than 0.5 means that the number

of questionnaire is sufficient to test using this tool. And if the result is grouping into 1 group, it means that the questionnaire is valid. Cronbach's Alpha is used to measure the questionnaire's reliability. The questionnaire item will be said as reliable if the Cronbach's Alphas score is greater than 0.6.

The H_1 and H_2 are tested by using regression analysis. H_3 and H_4 are tested using t-test. All the statistical calculation are calculated using SPSS 17.

4. RESULT

4.1 Descriptive Statistics

There are 131 questionnaires that were filled completely, with 70 respondents are male and 61 respondents are female between age 20-24 years old.

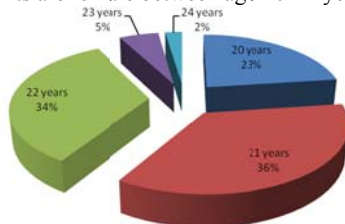


Figure 3. Age

4.2 Validity and Reliability Test

To confirm the validity of the questionnaire, we used factor analysis test. The results show up to be sufficient enough to meet factor analysis, because all of the questionnaire items had KMO's score greater than 0.5.

Table 2. Questionnaire Item

CONSUMER'S PERCEPTION (KMO's score: EG #1 = 0.835; EG #2 = 0.846) For me, this product is: ✓ Unimportant ~ important ✓ Means nothing ~ means a lot ✓ Worthless ~ valuable ✓ Not needed ~ needed
CONSUMER'S PURCHASE INTENTION (KMO's score: EG #1 = 0.719; EG #2 = 0.730; EG #3 = 0.786) ✓ If I have to buy a new cell phone, I have great intention to buy an eco-friendly cell phone. ✓ I will buy an eco-friendly cell phone if it is recommended by family member/relative. ✓ I want to buy an eco-friendly cell phone although the price is more expensive than others product. ✓ I still have intention to buy an eco-friendly cell phone although I don't have enough money.

Apparently all variables were valid because the calculation result for consumer's perception and their purchase intention in experimental group #1, experimental group #2, and experimental group #3 all clustered into a single factor.

The reliability is tested by using Cronbach's Alpha. All questionnaire are reliable because all the Cronbach's Alpha score is greater than 0.6 (minimum score = 0.942).

4.3 Result Analysis

Regression analysis is used to test H_1 and H_2 . T-test is used to test H_3 , H_4 , and H_5 . There are 4 hypotheses that are accepted: H_1 , H_2 , H_4 , and H_5 .

Table 3. Result (Grand Mean)

TREATMENT	Consumer's Perception	Purchase Intention
Global Warming	$\mu_{x1} = 5.49$	$\mu_{y1} = 5.09$
Benefit	$\mu_{x2} = 5.53$	$\mu_{y2} = 5.33$
Expensive price	-	$\mu_{y3} = 2.85$

Table 4. Hypotheses Testing

	Score	Sig.	Result
H_1	$\beta = 0.672$	0.000	SUPPORTED
H_2	$\beta = 0.645$	0.000	SUPPORTED
H_3	t-test = - 0.665 $\mu_{x2} - \mu_{x1} = 0.05$	0.507	Not Supported
H_4	t-test = - 4.144 $\mu_{y2} - \mu_{y1} = 0.24$	0.000	SUPPORTED
H_4	t-test = 24.301 $\mu_{y3} - \mu_{y2} = -2.48$	0.000	SUPPORTED

5. CONCLUSION

From this study, we can conclude that the new cell phone product that could prevent global warming and have significant benefit will positively affect consumer's purchase intention. However, their purchase intention will decrease when they face the expensive price. There are no respondent that have willingness to pay this eco-friendly cell phone with cost Rp 3,600,000 higher than the conventional one, but there are 112 respondents that will pay with higher price in average Rp 574,554. To overcome this condition, the subsidy from the government is also needed. In the future, we would like to make a feasibility study on the cell phone with PEFC in Indonesia based on CDM scheme. The Clean Development Mechanism (CDM) is one of the flexibility mechanisms defined in the Kyoto Protocol. The CDM allows industrialized countries to invest in emission reductions wherever it is cheapest globally. By using the CDM scheme, we try to develop scenarios to promote PEFC cell phone in Indonesia.

6. REFERENCES

- [1] Agnolucci P (2007) Economics and market prospects of portable fuel cells. International Journal of Hydrogen Energy 32, pp. 4319-4328
- [2] Tanaka Y (2007) Progress in Fuel Cell Technologies. IEEJ Trans. FM. 127(1), pp 24-26

Person-organization fit career paths for IT professionals

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ABSTRACT

As organizations face increased competition, their attention is focusing on how to maximize the return from their investments. From a human resource perspective of IT professionals, the debate centers on how to leverage this human capital in support of business needs. To encourage them to be more productive, a useful approach for individual organizations is to develop an internal environment allowing them to attract and inspire IT staff to deliver maximum performance and productivity. To date, the imperative to turn IT professionals into strategic contributors has been addressed with two approaches: job context approach and job content approach. However, the vast majority of efforts have focused on the former. Considering characteristics of IT professionals with technical expertise and competencies, the way to increase productivity should be sought while preserving their technical competencies. The job content approach is more needed for this purpose. Despite this call, it is rare to see academic endeavors and HR practices that have focused on job content approach to answer the call. In an increasingly information-intensive environment, the importance of retaining productive IT professionals remains high. This study aims to address these challenges by designing practical career path system for IT professionals with the theoretical background of Schein's Career Anchor Model.

A Study on Policies for the Activation of WiBro Market

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ABSTRACT

This study first attempted to point out fundamental reasons behind the failure to have WiBro services off the saddle, investigating the previous studies, and second to screen the WiBro promotion policies after reviewing the major steps conducted thus far by the government. In order to put the screened policies in order by the importance, an AHP analysis was conducted targeting WiBro professionals in various fields such as government offices, universities, research institutes, and industry. One step further, causal loop diagramming on the system dynamics methodology was conducted to examine the dynamic structure of the WiBro market in holistic standpoint of view. Finally, a simulation model was developed based on the causal loop diagrams and the results of the AHP analysis in order to examine how various policy scenarios influence the growth of the WiBro market over time, and to compare the mix of policy options. Finally, the study attempted to draw some implications for WiBro vitalization.

The Social Influences on Internet Dependency in the Online Shopping Environment

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ABSTRACT

Individual media dependency (IMD) describes whether individuals' understanding, orientation, and play goals are satisfied by the use of a specific media [1]. IMD has been studied with relation to newspapers and television. However, the Internet, while widely used to meet various media needs, has not been studied widely with the dependency theory. The purpose of this study is (1) to investigate the IMD theory in the online shopping situation, (2) to examine the social influence (subjective norms and critical mass) on the Internet dependency and Internet usage, and (3) to propose a research model.

INTRODUCTION

Internet as a medium is distinct since it does not look and behave like papers, magazines, radio, or television [2]. Media system dependency (MSD) theory describes media as an important component in a "tripartite audience-media-society entity" and dependency as a "goal seeking behavior of individuals, groups, and social systems" [3]. Therefore, dependency on a specific media for human goals is only possible in a given society of consideration, and social influences on the media dependency are essential. IMD theory is considered practical since it can measure media impact [3]. Studies on Internet IMD are very limited. Also, there is no research seeking the social influence on media dependency. This paper will view the effect of social influences on the individual Internet dependency and Internet usage, consequently on Internet shopping dependency, web store visits, and purchases.

LITERATURE REVIEW

Media System Dependency (MSD)

Media system dependency (MSD) theory views how social institutions relate with media to pursue the organizations' media goals within a society [4][5]. Media, audience and society form a tripartite entity, and all the effects of media are not to be examined from the media audiences' psychological characteristics and social backgrounds alone but to be from the larger perspective of media system. Resources of media comprises of the capacity to create and gather, to process, and to disseminate information [5].

Bill-Rokeach and DeFleur's [4] study suggests the degree of audience dependence on media information is the key to understand the effect of media on the audience in changing beliefs, feelings and behaviors. They defined dependency as "a relationship in which the satisfaction of needs or the attainment of goals by one party is contingent upon the resources of another party."

Individual Media Dependency (IMD)

IMD is defined as "a relation between the individual goals and the extent to which these goals are contingent upon the resources of the media system" [5]. IMD is distinguished as three main goals: understanding, orientation, and play. Each of the human goals have self and social aspects.

Understanding describes human needs to understand the world around individuals and to seek self. Orientation reveals human needs to learn the proper behaviors of individuals in interacting with others or him/herself. Play describes needs for "an avenue through which one learns societal roles, norms, and values." Activities such as sports, dance, and games are considered play avenues [3].

Social Influence on IMD

Ball-Rokeach et al. [8] suggests five factors influencing IMD: structural factor, contextual factor, media factor, interpersonal network factor, and individual factor. While all five factors are equally important in studying IMD, this paper only looks at on the contextual factor and interpersonal network factors due to their social nature. Contextual factor deals with a situation where an individual or group's social environment affects the individual media dependency. Interpersonal network factor is concerned with situation where individuals are motivated to use one media over others due to the interpersonal network the individuals have. Both contextual factor and interpersonal network factor describe social influences on IMD.

Subjective Norms and Critical Mass

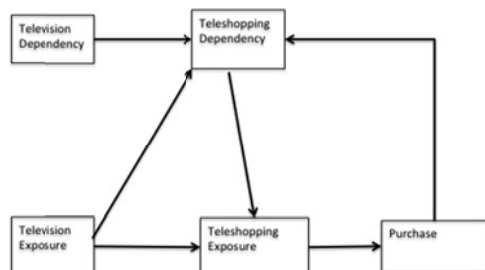
Subjective norm is defined as an individual's perception about a reference group's response to a to-do or not-to-do problem [7]. Critical mass is defined as "the number of other people who must be doing the activity before given individual joins in [8]". When the majority of members in important groups are actively surfing Internet already, there would be more value for an individual to join in and surf the same Internet sites [9].

IMD Model for Teleshopping

IMD provides a mean to view and measure an individual level of dependency relationship with a specific media of interest. Alcaniz et al. [10] proposed a basic Individual Media Dependency Model for Teleshopping as shown in the Figure 1.

The model (Figure1) describes that individuals can develop dependency on television to reach individual and social goals; and television dependency can be extended to a specific genre, in this case, teleshopping. Spending more time with television positively influences the chance to watch teleshopping and affects teleshopping dependency. Teleshopping exposure influences purchases and purchases, in turn, teleshopping dependence.

FIGURE 1. Simple Individual Media Dependency Model for Teleshopping



RESEARCH MODEL AND HYPOTHESES

While the traditional mass media theories do not fully explain how the Internet promotes different modes of communications online [11], the Internet today is one of the leading choice for communication, information delivery, and product promotion and purchases. The framework, shown in Figure 2, describes how individuals depend on the Internet for their shopping and purchasing behaviors.

This study takes Alcaniz et al's simple IMD model (Figure 1) and adapt to an Internet shopping setting. Table 1 shows how the proposed research model can be compared to Alcaniz et al's model (Figure 1). The research model introduces new antecedents to investigate social influence on Internet dependency and other adaptations are made to accommodate different media, the Internet.

FIGURE 2. Research Model

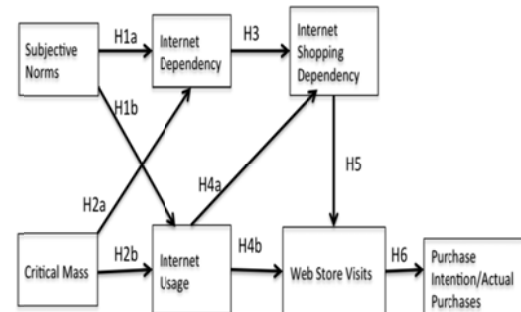


TABLE 1. Model Comparison

TV Shopping	Internet Shopping	Modification
	Subjective Norms	Introduced
	Critical Mass	Introduced
Television Dependency	Internet Dependency	Adapted
Teleshopping Dependency	Internet Shopping Dependency	Adapted
Television Viewing	Internet Usage	Adapted
Teleshopping Exposure	Web Store Visits	Adapted
Purchases	Purchase Intention/Actual Purchases	Expanded

IMD can be influenced by factors such as structural factor, contextual factor, media factor, interpersonal network factor, and individual factor [6]. Among them, this paper deals with social factors influencing IMD:

contextual factor and interpersonal network factor. This paper uses subjective norm to represent contextual factor because subjective norms, in this situation, is what an individual's perception about the reference groups' choice of media. Also, this paper uses critical mass to represent the interpersonal network factor since critical mass is an individual's perception of media value, which increases when his/her salient group members are using the media.

When an individual believes that the person's salient groups think that he/she should choose a certain course of action, he/she will eventually comply with the way he/she believes the salient groups want [9].

H1a: Subjective norms will have a positive effect on Internet dependency.

H1b: Subjective norms will have a positive effect on Internet usage.

Critical mass is an important concept in understanding the adoption of new innovative technology. The value of the technology increases with the number of participants using the technology. Especially the influence of critical mass would be much greater when the majority of referent group members are utilizing the technology in question [9]. Network externality explains why critical mass could have a positive effect on both Internet dependency and Internet usage. Therefore, the following hypotheses are proposed.

H2a: Critical mass will have a positive effect on Internet dependency.

H2b: Critical mass will have a positive effect on Internet usage.

Teleshopping dependency has a positive influence on Internet shopping dependency [1] [3] [10]. Dependency transfer from a media-level down to a genre-level should be media-independent and apply similarly in the Internet media as well. Therefore,

H3: Internet dependency will have a positive effect on Internet shopping dependency.

High usage of a media gives more exposure to a specific genre [1] [3] [10] and more exposure to a specific media should increase the likelihood of the genre dependency as well [3]. Therefore, H4a and H4b are presented as following;

H4a: Internet usage will have a positive effect on Internet shopping dependency.

H4b: Internet usage will have a positive effect on web store visits.

Teleshopping dependency is found to increase the teleshopping exposure, and teleshopping exposure is found to increase purchases [1] [3] [10]. Genre dependency influencing exposure to the genre should be media-independent. Therefore,

H5: Internet shopping dependency will have a positive effect on web store visits.

TV shopping viewing is found to increase purchasing [1] [3]. Similarly, H6 is proposed as following;

H6: Web store visits will have a positive effect on purchase intention/actual purchases.

REFERENCES:

- [1] Grant, A.E., Guthrie, K.K. & Ball-Rokeach, S.J. Television Shopping: A Media System Perspective, Communication Research, 1991, 18(6), 773-798.
- [2] Morris, M. & Ogan, C., The Internet as Mass Medium, Journal of Communication, 1996, 46(1), 39-50.
- [3] Skumanich, S. & Kintsfather, D. Individual Media Dependency Relations within Television Shopping Programming – A Causal Model Reviewed and Revisited, Communication Research, 1998, 25(4), 200-219.
- [4] Ball-Rokeach, S.J. & Defleur, M.L. A Dependency Model of Mass-Media Effects, Communication Research, 1976, 3(1), 3-21.
- [5] Ball-Rokeach, S.J. The Origins of Individual Media-System Dependency: A Sociological Framework, Communication Research, 1985, 12(4), 485-510.
- [6] Ball-Rokeach, S.J., Rokeach, M. & Grube, J.W. The Great American Values Test: Influencing Behavior and Belief Through Television, New York: NY: Free Press, 1984.
- [7] Fishbein, M. & Ajzen, I. Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research, Reading, MA: Addison-Wesley, 1975.
- [8] Markus, M.L. Toward a "Critical Mass" Theory of Interactive Media, Communication Research, 14(5), 491-511
- [9] Hsu, C.-L. & Lu, H.-P. Why Do People Play Online Games?-An Extended TAM with Social Influences and Flow Experience, Information & Management, 2004, 41, 853-868.
- [10] Alcaniz, E.B., Blas, S.S. & Torres, F. T. Dependency in Consumer Media Relations: An Application to the Case of Teleshopping, Journal of Consumer Behavior, 2006, 5, 397-410.
- [11] Morris, M. & Ogan, C. O. The Internet as a Mass Medium, Journal of Communication, 1996, 46(1), 39-50.

How Institutions Affect Public Policy

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ABSTRACT

Public policy making process deals with the way government solves problems in the society. Government institutions solve problems by formulating alternatives and selecting policy solutions; and these solutions should be implemented, evaluated, and revised (Sabatier 2007, 3). By the definition above, institutions play an important role in public policy area.

The type of institutions mostly discussed here is bureaucratic institutions and self-governed institutions; while bureaucratic institutions are widely criticized as ineffective institutions due to political conflicts around them; self-governing institutions are seen as important contributors in managing common pool resources. Bureaucratic institutions are often places where the winners can control the losers. In order to avoid conflicts among bureaucrats, mutual agreement should be prioritized for a greater good.

This paper also analyzes how institutions affect public policy making process. Institutions can influence public policy into two approaches; the positive approach and negative approach. The positive approach argues that institution is appropriate place for building consensus and commitment among its member; while the negative approach views institution as a place where the winners may force their interests over the losers. An example of famous positive approach of institution is illustrated in the management of "common pool resource", the term introduced by Ostrom (1990) to define a type of good consisting of a natural or human-made resource system whose characteristics makes it costly to exclude potential beneficiaries from obtaining benefits from its use. This paper also discusses the causal mechanism of institutions; how institutions might influence public policy making.

Keywords: Public Policy, Government, Institution, Bureaucracy

INSTITUTION

Institution is defined as the rules, norms, and strategies adopted by individuals operating within or across organizations (Ostrom 2007, 23). Other scholar defines institution as the structural means by which political winners pursue their own interests, often at the great expense of political losers (Moe 1990, 213). Different definitions of institution bring a conclusion that institution has goals and shared beliefs among its

member. Institution is mostly legalized in a form of organization which has set of rules, procedures, and norms; but institution often also takes place in intangible forms; such as cultures or beliefs. Whatever the form of an institution is, it modifies the behavior of its members.

One of the most difficult problems found in the institutions studies is how to identify and observe institutions (Ostrom 2007, 23). Institutions mostly are shared concepts which are intangible and implicit. One of the solutions offered is by using the concept of rules-in-use rather than focusing on rules-in-form. Rules-in-use works as if when someone new is being socialized into an existing rule-ordered system of behavior. It is the dos and don'ts which are not written in any documents.

STRUCTURE OF INSTITUTION

In seeing bureaucratic structure as an example of institution, one of famous quotes about bureaucratic structure is that (American) public bureaucracy is not designed to be effective (Moe 1989, 267). The ineffectiveness of bureaucratic structure is mostly caused by political influences which often happen in a structure. The design of bureaucratic structure reflects the interests, strategies, and compromises of those who exercise political power. The political power is very strong to determine the goal of bureaucrats because those who are in power tend to have their own interests to pursue in politics. Macey (1992, 93) supports this view by saying that the structure and design of bureaucratic structures can be explained as mechanisms for controlling the principal-agent problem that exists between the political actors who delegate regulatory authority to administrative agencies and the bureaucrats within those structures.

In a political structure, organized interest groups play important role to mobilize their political resources to get what they want (Moe 1989, 269). These interest groups are people who are active, informed participants in their specialized issue areas, and they know that their policy goals are crucially dependent on precisely those fine details of administrative structure. Interest groups are the only source of political pressure when structural issues are at stake. It is exactly like Moe (1989, 269) states that structural politics is interest groups politics.

The interest groups politics work because sometimes they are not suited to solve complex problems in the society because of lacking enough

knowledge to solve problems. So this will be an expertise problem. An effective way to solve problems is by hiring experts and asks them to solve problems. This strategy will compensate groups' lacking of knowledge. But this strategy will raise another problem; the groups do not know what the experts are doing because they do not have enough control on the experts. Therefore, the only way to control the behavior of bureaucratic behavior is by having strong rules and control over them. These rules can be taken in the form of procedures, norms, sanctions, rewards. These are basic component of bureaucratic structure (Moe 1989, 272).

Some strategies can be selected to overcome the ineffectiveness of bureaucratic institution. One of them is by building arrangements that weigh the scale in favor of those advocating the national interest (Moe 1989, 268). In this solution, the goal is to serve for a greater good, or for better interests. The other strategy is that all decisions by bureaucrats must be posted openly for public consumption to avoid the abuse of power by bureaucrats. Good reputation should be maintained because reputation is related to how bureaucrats behave ethically and in honesty.

Macey (1992, 95) mentions that studies of political control of administrative agencies focused on efforts by politicians to control bureaucratic behavior ex post by monitoring, which has taken a variety of forms; for example: Congressional Budget Office and the General Accounting Office, and reliance on constituents' "fire alarm" notification. Another procedures is explained by McNollgast (1987) in Macey (1992, 95) which focuses on procedural rules as the primary means for supplementing the role played by monitoring to eliminate bureaucratic drift. Microrules, like the prohibition on ex parte communication (which enables politicians, but not interest groups, to gain direct one-way access to administrators), and macrorules, such as congressional control over agency funding, and permit political actors to control bureaucratic drifts. Another way to control bureaucratic behavior is by ex ante, it means that controlling behavior of bureaucrats takes place before the event. Another example of ex ante approach is by controlling the scope of an agency's discretion in the initial delegation of authority. Another ex ante approach is stated by Macey (2007, 108) who focus on the ability of Congress to determine ex ante the agency's structure, its design, and therefore its clientele.

POSITIVE APPROACH OF INSTITUTION

The term of "positive approach of institutions" is firstly introduced by Moe (1990, 249) as his own labeling for the work that positive theorists have done on political institutions, especially the portion of the work that has come since the late 1970s in reaction to the chaos theorems of social choice. The positive approach of institutions has two basic concerns; one is to explain institutions-where they come from, why they take the forms they do- and the second one is to

understand their effects for political and social behavior (Moe 1990, 214). It puts collective-action problems and "bureaucratic drift" as clearly fundamental elements to an understanding bureaucratic structure.

The most discussed positive approach of institutions perhaps is what stated by Ostrom (1990) who views self governing institutions as a good alternative to manage common pool resources. The term common pool resources (CPR) refers to a natural or man-made resource system that is sufficiently large as to make it costly (but not impossible) to exclude potential beneficiaries from obtaining benefits from its use (Ostrom 1990, 30). A common pool resource usually consists of a core resource which defines the stock variable, while providing a limited quantity of extractable fringe units, which defines the flow variable. While the core resource is to be protected or entertained in order to allow its continuous exploitation, the fringe units can be harvested or consumed.

Access to a CPR can be limited to a single individual or firm or to multiple individuals or teams of individuals who use the resource system at the same time. It may be owned by national, regional, or local government as public goods, by community as common property resources, or by private individuals or corporations as private goods. Ostrom (2007, 30) calls the process of withdrawing resources units from a resource system as "appropriation", and those who withdraw such units are called "appropriators". Those who arrange for the provision of CPR are called "providers", and "producer" refers to anyone who actually constructs, repairs, or takes action that ensure the long-term sustenance of the resource system itself. It is often that providers and producers are the same individuals.

NEGATIVE APPROACH OF INSTITUTION

The negative approach of institution, as stated by Moe (1990, 249), basically is not an attack on positive theory, but it is as a friendly warning about the autopilot features of positive methodologies, and as a nudge to encourage mid-course corrections that might help accelerate their progress.

The negative approach of institution begins with the idea that public structures are wholly designed by the current winners of the struggle to control public authority (Moe 1990, 229). The losers play no role in this and are forced to live whatever structures the winners impose on them. This view argues that structures often protective devices for insulating agencies from political enemies, and not as means to build effective institutions. Macey (1992, 93) supports this view by indicating that politicians who establish administrative agencies can manipulate the structure and design of those institutions in ways that reduce the chance that future changes in the political landscape will upset the terms of the original understanding among the relevant political actors.

In this negative view of bureaucratic institutions, it is important to distinguish between the public officials who make the authoritative decisions and the social actors who support, oppose, and influence the decisions. The public officials are the ones who have control over the citizens in the society. When control is imperfect, the citizens might fear of political threats from public officials because public officials tend to pursue their own interests at the expense of constituents. Moreover, they are particularly dangerous because they have the force of law behind everything they do. Citizens will have good reason to fear the “state” (Moe 1990, 234). It is the winners who have power over the losers.

The condition differs when there are strong interest groups in the society. Unlike common citizens, interest groups are politically active and well-informed about matters affecting their interests. They understand how agencies are designed, where they are located in government, oversight procedures, personnel rules, and others. Structural politics is a process in which interest groups and public officials make decisions about the structure of government (Moe 1990, 234). If political control were perfect, interest groups could act through elected officials to eliminate bureaucratic autonomy.

HOW INSTITUTIONS AFFECT PUBLIC POLICY MAKING

Based on the approaches offered by scholars about institutions, it should be understood that institutions might affect public policy making process. It is publicly known that most bureaucratic institutions are having few experts which have enough technical knowledge on how to make effective public policy (citations). As a result, complex problems faced by bureaucrats mostly are solved by experts. These experts are those who have deep knowledge on certain issues, and hired by bureaucrats –using public budget– to solve problems in public. Actually this process will not happen if bureaucrats can improve their skills, deepen their knowledge, and broaden their horizon on public policy making process. Bureaucrats should commit to their job and train themselves to have necessary skills and knowledge to solve public problems.

Media also plays important role in endorsing public policy making process by government officials. Media might mobilize public opinion on certain issues in public area. Therefore, bureaucrats should be transparent in making policy. Public should know what have been done by bureaucrats. Media can play their role in controlling behavior of bureaucrats in making public policy. Media should ensure bureaucrats will not abuse their power and bring benefit for their own interests. The role of media is an example of ex post approach in controlling bureaucratic behavior.

Interest groups are also needed to monitor the behavior of bureaucrats. Since interest groups are people who are well-informed and have access to bureaucrats, they can voice their concerns over certain

public issues. Public will refer to interest groups concerns if there is misconduct behavior from bureaucratic officials.

CONCLUSION

Public policy making process cannot be separated from the role of institutions. There are two approaches in viewing institutions in public policy making; the positive approach and the negative one. The positive approach is viewing institutions as common pool resources where individuals have shared resources to be used together. The negative approach put concerns on the politics and structures of institutions. Both approaches are balancing each other and cannot be separated. These approaches are integral parts in order to analyze institutions in public policy making process.

REFERENCES

- [1] Lundin, Martin. 2007. When Does Cooperation Improve Public Policy Implementation? Policy Studies Journal, 35(4): 629-652.
- [2] Macey, Jonathan R. 1992. Organizational Design and Political Control of Administrative Agencies. Journal of Law, Economics and Organization, 8(1):93-110.
- [3] Moe, Terry M. 1989. The Politics of Bureaucratic Structure. In *Can the Government Govern?* John E. Chubb and Paul E. Peterson. Washington, DC, Brookings, pp. 267-329.
- [4] Moe, Terry. 1990. Political Institutions: The Neglected Side of the Story. Journal of Law, Economics and Organization, pp. 213-53.
- [5] Nicholson-Crotty, Sean. 2005. Bureaucratic Competition in the Policy Process. Policy Studies Journal, 33(3):341-361
- [6] O'Toole, Laurence J. Jr. 2000. Research on Policy Implementation: Assessment and Prospects. Journal of Public Administration Research and Theory, 10(2): 263-288.
- [7] Sabatier, Paul A. 1986. Top-Down and Bottom-Up Approaches to Implementation Research: A Critical Analysis and Suggested Synthesis. Journal of Public Policy, 6(1): 21-48.
- [8] Schneider, Sandra K. and William Jacoby. 1996. Influences on Bureaucratic Policy Initiatives in the American States. J-PART 6(4): 495-522.
- [9] Waters Robichau, Robbie and Laurence E. Lynn Jr. 2009. The Implementation of Public Policy: Still the Missing Link. Policy Studies Journal, 37 (1): 21-36.

Logistics Knowledge of the Employee in Rojana Industrial Park, Ayutthaya, Thailand

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Abstract

This research's purpose was to study logistics knowledge levels of employees in Rojana Industrial Park, Ayutthaya Province, Thailand, to compare the differences of demographic and general information that affect the logistics knowledge levels in employees. Samples used were 367 which was chosen through the simple random method. The result of the study was most employees had medium level of logistics knowledge. Moreover, we found that marital status, age, education level, income, current work position, department and work experience, except gender, affect the logistics knowledge of employees in Rojana Industrial Park, Ayutthaya with statistical significance at level of 0.05.

Introduction

Recently, the globalization have made all countries in the different regions come closer because of the intense competition, every business and the government in each country had to adjust their policies such as making free trade agreement or finding the alliances for increasing the ability to compete in different market. To make business go forward quickly, products and services should be transported efficiently. So the "Logistics" is the best solution for entrepreneur to increase their potential in case of cost efficiency, and make the value added, reliable and secure in their products and services delivered to their clients. Thai government had seen this importance, so they defined the business logistics improvement strategies of year 2007 to 2011 which had five main strategies;

- 1) Business Logistics Improvement
- 2) Transport and Logistics Network Optimization
- 3) Logistics Service Internationalization
- 4) Trade Facilitation Enhancement, and
- 5) Capacity Building.

From the above strategies, "employees" are heart of these strategic plans, because all strategic operation & other activities are assigned by person. If entrepreneur don't know the meaning of "Logistics", however, he knows only definition of entrepreneur, then he could not be able to improve their performance. Nevertheless, if they really understand logistics

concept and made it happen, these should affect the cost efficiency, customer service, network optimization including the use of modern technology and techniques for managing efficiency in each logistics management activity.

Urgent capacity building and professionalism have been developed among logistics personals to be ready to deal with the increasing competition at the regional level, including training for the trainer among institutes and manufacturers. The 400,000 professional personals were expected to get trained in year 2011.

From this significance, researcher was interested to study "Logistics Knowledge of the Employee in Rojana Industrial Park, Ayutthaya". The purpose of the study was to know the logistics knowledge level of the employees working in Rojana Industrial Park which is the industrial park that have efficient management system and facilities supporting logistics development. The researcher expected that the result could be used to adjust the human resource management process for developing organization and knowledge-based system.

Methodology

The research has been conducted to study the knowledge of employees in Rojana Industrial Park, Ayutthaya. Data was collected from questionnaires containing 1) populations' information of age, gender, marital status, education level and income; 2) the general information of respondents including the current position, department, work experience and 3) logistics knowledge of staff at Rojana Industrial Park, Ayutthaya. The criteria to measure overall level of knowledge of logistics knowledge consists of three levels - low (0-5 points), fair (6-10 points) and high (11-15 points).

The questionnaires were returned from samples of 367 people and then processed by the SPSS statistical package program for data analysis. The data analysis was divided into: 1) Descriptive statistics including percentage, average (mean) and standard deviation for demographic information and the respondents' information, 2) Inferential statistics for the reliability of 95% were used, T-test and One-way Analysis of Variance (One-way ANOVA) for independent samples, and 3) Welch-test of Games-Howell

proposed by Paul A. Games and Johe f. Howell was used to compare the average as a couple to find which couple has the difference as the population variances are no equal.

Results

Data analysis is divided into two main parts: first one is a measure of the logistics knowledge level and testing hypotheses about the level of knowledge of demographic factors and general information as independent variables. The results of an analysis by descriptive statistics showed that the majority of the samples are female, 72.2%, under 30 years old as 69.8%, and single as 70.8%. The samples with lower secondary school or equivalent are 56.7%. The samples with average income in range of 5,001 – 10,000 baht are 64.9%, most of them are the production staff. The 83.1% of the employees in the production line are of 1-5 years working experience as 53.4% of all employees. The 51.8% of samples know that there is system for logistics management in company but most of them (76.8%) do not work directly in logistics area.

The data measured in the logistics knowledge found that the samples have logistics knowledge at fair level as 42.0% (154 people), have high knowledgeable level at 37.0% (136 people), and have low knowledge at 21.0% (77 people). The overall average is 8.610% out of total score 15 points and the standard deviation equals 3.455. For hypotheses testing, the analysis of the difference between logistics knowledge and demographic factors and general information found that logistics knowledge of employees in Rojana Industrial Park, Ayutthaya, were statistically significant different on all factors except gender.

Conclusion & Discussion

To measure logistics knowledge of employees in Rojana Industrial Park, Ayutthaya found that most employees have logistics knowledge in the fair level. It also found that most employees do not know if the government had to prepare a National Strategic Plan to develop the logistics function to be the center of Indochina. This showed that most employees in Rojana Industrial Park do not yet know the importance of the logistics system's development performance. Therefore, administrators should encourage employees at all levels in the organization to acknowledge and recognize the importance of the Strategic Plan for development of logistics in Thailand. To a similar way in the development of logistics firm, the competitiveness and increase in the global arena bring about the fundamental strength of our economy in the future. The differences in demographic factors and general characteristics of data with logistics knowledge also found that gender doesn't affect the level of knowledge in employees. This may be because employees are in the same work environment and no matter they are female or male, they would have equal knowledge.

For other factors such as marital status showed that the average level of knowledge of married employees who have more workload are less than those who were single or divorced/widowed. They, therefore, have less opportunity to find more information.

In terms of age, the study showed that employees with over 40 years of age have more average level of knowledge than other age. The staff with 16 years work experience means higher level of knowledge. The older employees are working harder as well; moreover, employees in this group have more experience in performance. They understand the organizations' system and process and can apply their knowledge to work in the related area effectively and successfully.

In terms of education and current position, the study showed that employees with higher than diploma degree or with senior executive and supervisors have higher level of knowledge than other levels. That means employees in this group understand the logistics system's overview – policy, planning, management very well. To get the logistics system developed most efficiently, it depends on the visions and communication through the logistics operation to the employees efficiently and effectively. This is consistent with the result that main employees working in the production line have the lowest average knowledge – playing less attention to logistics knowledge. Unlike employees which work in management, planning and development, sales and marketing department, require such knowledge to develop and improve all aspects of the organization.

Recommendations

For organizations located in Rojana Industrial Park, Ayutthaya, researchers had thought that employees at all levels should have a basic knowledge of logistics. The employees involved in logistics should have opportunity to get trained and studied abroad on logistics information and operation. The information center of logistics should be supported and prepare the various medium mail merge, board announced, INTRANET, company journal and E-Mail, etc. For the further research, various topics on logistics such as comparison on knowledge before or after logistics course has been taken should have been studied. Moreover, the activities on logistics such as cost reduction, time management, and satisfaction of customers should also be focused.

REFERENCES

- [1] Apipratyasakul, Kamnay (Dr.) Logistics and supply chain management. "With this strategy, rich savings." Bangkok: Nattaporn Company Limited, 2003

- [2] Banomyong, Rutii and Supat, Nucharee. "Educational vision, knowledge and the need to develop logistics skills operators in the small and medium enterprises." In the Workshop. academic year in supply chain management and logistics No. 8, pages 762-773, 2008
- [3] Boonlar, Tapan. Thailand Logistics. 1st edition. Bangkok: Association for the Promotion of Technology. (Thailand - Japan), 2006
- [4] Christopher, M., Logistics and Supply Chain Management. 3e, Prentice Hall, 2005
- [5] Office of the National Economic and Social Development Board. Strategy Development Plan: Logistics of Thailand (Year 2007-2011) <http://www.nesdb.go.th/Default.aspx>. [May 2550]
- [6] Rojana Industrial Park, public company limited. Annual Report, 2008
- [7] Stock, J.R. and Lambert, D.M., Strategic Logistics Management. 4th edition, Boston, MA: McGraw-Hill-Irwin, 2001
- [8] Tanit, Sorat. Logistics Case Study: Silk Road Mekong Logistics, a new era of trade, China – ASEAN. Bangkok: Rao service Company Limited, 2005
- [9] Wanichbancha, Kalaya (Dr.). Using SPSS for Windows to analyze data. 11th edition. Bangkok: Thammasan Company Limited, 2008

Tourism Acculturation in Internal Labour Migration Upon Socio-Cultural Changes in Koh Samui, Thailand

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ABSTRACT

The economic development brought about by tourism often induces migration to an emerging tourism region. A constructivist paradigm with participant observation and semi-structured interviews were employed. This paper analyses the acculturation in internal labour migration upon socio-cultural changes as a consequence of tourism development. Local residents in Koh Samui attribute the majority of acculturation and socio-cultural impacts to labour migration from the Isan region of Thailand. This paper starts with an analysis of labour forces in the Thai and Koh Samui tourism sector. In addition, the interrelation of tourism and labour migration are examined. Finally, acculturation and adaptation in Isan migrant workers is explored given they apparently adapt more to the tourist culture than local residents.

INTRODUCTION

Tourism creates new employment opportunities in the host area and it influences migration patterns. In Koh Samui, tourism attracts outsiders who are searching for work and economic opportunity and who often come from other branches of the economy, particularly agriculture. Migration for work has become common for a range of reasons relating to social and economic change in Thailand, particularly from the Isan region of Thailand as these people see migration as an escape from poverty [5][8][11]. Tourist spaces offer unique opportunities for marginalised Isan migrant workers to recreate themselves and their future opportunities in the process [4]. Given hierarchical structure of Thai society, Isan migrant workers see tourists as good people and who show them more respect given their position as a Thai underclass. Tourist's language and culture are better than their culture and language. These migrant workers consider that tourists take a different type of food and wear neat clothes. This reflects the weaker culture of these migrant workers who appreciate the stronger tourist's culture and show a positive attitude towards them [12]. This leads migrant workers to imitate the western lifestyle, craving high living-standards and spending money on alcohol and clothes [13]. This circumstance also leads to changes in individual acculturation and adaptation, and as a group of Isan migrant workers.

A constructivist paradigm was adopted for this study using qualitative approach. Research gathers

subjective accounts that reveal how the world is experienced and constructed by people. Participant observation and semi-structured interview were adopted as primary methods. Data was collected during July to October 2007. Participant observation was facilitated by living with a local family covering many areas in Koh Samui. The background of the local residents and local context in Koh Samui were explored as well as local residents' behaviour patterns and the interaction between them and tourists on a day to day basis were examined through participant observation. Then, residents' and local authorities' perceptions and attitudes toward socio-cultural impacts in Koh Samui were investigated through semi-structured interviews. Sixteen local people were interviewed. Field notes were written briefly as quickly as possible after seeing or hearing something interesting during participant observation and full notes were written up at the very latest at the end of the day. Interviews were recorded and transcribed. Thematic analysis was employed to organise the data into categories. After that, new categories and sub-categories were obtained.

ACCULTURATION OF ISAN MIGRANT WORKERS

When these Isan migrant workers get into an exchange circle with tourists, it is evident that they adopt some specific tourist behaviours for instance in terms of their appearance, use of alcohol and drugs. There have been changes in cultural expressions in Isan migrant workers and this situation leads ultimately to cultural change in the host community. These changes in Isan migrant workers also lead to an acculturation process and eventually adaptation. Using Berry's four acculturation strategies [1], Isan migrant workers employ both integration and assimilation strategies to acculturate to tourist culture. However, observation suggests that some Isan migrant workers tried to separate themselves from others who had a similar ethnic background due to the fact that they perceived themselves as being of a different social status as they had acquired an education and well paid skilled jobs.

While participating with residents, including a travel agency in Maenum area, the assimilation strategies that were adopted by some Isan migrant workers in order to seek the interaction with both tourists and local people in their daily were evident:

I meet an Isan migrant worker who works as a marketing officer in a travel agency in Maenum. It surprised me as he looks different from other Isan migrant workers in Koh Samui. I notice that he participates less with other Isan migrant workers who work with him. I understand that he has a bachelor degree and works in the office but other Isan migrant workers do not and work in labouring. He gets along better with local residents and tourists rather than people who come from a similar background to him. It is relatively unusual but understandable.

August 17, 2007

The acculturation process involves interactions between dominant and non-dominant groups [1]. In this situation, Thai people as a host community are a dominant group including Isan migrant workers who share the same basic values with local people in Koh Samui. Tourists as visitors are the non-dominant group. However, it can be argued that tourists are in reality more economically dominant in this circumstance as they belong to Western cultural groups from developed countries. In addition, in most cases, scholars apply acculturation theory and social identity to migrant workers who move into a different culture [1][2][14][15]. However, this is not always the case. Given that acculturation involves non-dominant and dominant groups, acculturation theory may be applied to Isan workers who migrate to the same culture but where they are considered as an underclass and are therefore non-dominant. They are also exposed to a different visiting and dominant tourist culture.

The study suggests that Isan migrant workers may have already gone through this acculturation process and may have judged that they have had a good experience from it, at least gaining an economic benefit from tourism. Consequently, Isan migrant workers adapt their behaviour to tourist culture. However, these changes require a length of stay in the destination. In terms of adaptation to host culture, the study demonstrates that even though Isan people are considered as an ethnic cultural group as Lao Isan, they could not escape the fact that they are a part of being Thai and share similar values, traditions and beliefs with local residents in Koh Samui as Thais. Observation indicates that Isan migrant workers have experienced a greater sense of adaptation to the tourist culture than local residents, as field notes show.

Isan migrant workers seem to get on well with tourists, especially Isan women and Western men. The way they act is more western in the way that they are holding hands, hugging, and kissing in the public settings – inappropriate manners as Thais are more conservative than Western culture. .

September 17, 2007

Berry [1] states that when individuals judge acculturation experiences as smooth and without problems, these behavioural changes lead to the process of adaptation. In terms of psychological and

socio-cultural adaptation to host destinations, it is tempting to assume that it is not difficult for Isan migrant workers as they have similar cultural background. However, they might experience stress as they are far away from home and have to adapt to new economic circumstances. Ward et al. [15] point out that migrants encounter more obstacles to economic success than natives. In this case, Isan migrant workers who are poorly educated almost always seek unskilled jobs. Many of them may end up working on construction sites, or as bar girls or prostitutes.

Furthermore, social identity theory can be used to explain this acculturation and adaptation in Isan migrant workers. The theory proposes that individuals maintain their ethnic identity at many different levels to support the self-esteem of each individual. It means a relationship between ethnic identity and self-esteem only occurs when an individual perceives ethnicity or culture as a central feature of identity [15]. Some scholars state that a sense of belongingness is enough to enhance self-esteem in members of groups. In addition, the theory is involved with the strategies that individuals use to maintain their self-esteem in the face of an unfavourable group identity [14]. It is also explained that migrant groups, like other minorities in the host culture, often experience both negative stereotyping and attitudes by local residents as the majority. If migrant groups perceive this as threatening, they may adopt a variety of responses to change their social identities and to repair their self-esteem [14]. Conversely in regard to local residents, the findings show that they had high sense of attachment and belonging to their community as Poo and Art expressed below.

'I was born here. There was a while that I went to study in Bangkok but at the end of the day, I want to be here where I was born. Even though things have changed a lot because of tourism, I still want to live and die here, will not definitely move to other town'. (Poo)

'I am proud to tell everyone that I come from Samui. It is my home and where I was born'. (Art)

The stronger the local culture and the longer the existence and historical backgrounds of the host destination, the better they can cope with the impacts of alien culture [3]. Ericker [7] states that there is a very strong sense of Thai national identity and faithfulness to traditional values, with obvious pride in being Thai. In a Thai Buddhism context, Boon-khun (feeling grateful) is a high value [6]; therefore, being appreciative towards someone's Boon-Khun, including the land where one was born, is important. Even though local residents see tourism as beneficial and rely on it, they are willing to adapt to tourist culture but only to a certain degree due to their strong sense of community attachment and belongingness which are fundamental to their values.

Social identity theory also suggests that social identification of each ethnic group depends on social categorisation and social comparisons, in-groups and out-groups [15]. In this case, Isan migrant workers are considered as a distinct group and there are clearly in-groups and out-groups in Koh Samui. Isan migrant workers as out-groups are identified as a lower social status and are looked down by others as their characteristics of hard labouring and low education. For example, Isan women in general do not look beautiful to central Thai people and they are identified as 'Na Lao' so when central Thai people see a girl who does not look beautiful, she may be identified as 'Na Lao' [9]. Consequently, this may be the reason why Isan people have such a low self-esteem and sense of belongingness in general. Kislenko [10] also suggests that less educated Thais, such as Isan people, are more grateful, caring-considerate, helpful, forgiving, obedient, and respectful, as well as having a greater sense of religion but less self-esteem than the highly educated Thais. However, Isan people migrate from home to seek an employment in order to fulfill their family and personal needs of economical support to improve their social status as well as to increase their self-esteem.

Isan migrant workers may well have less sense of belonging than local residents. It can also imply that they may willingly adapt and change their behaviour that leads to culture change and acculturation process. However, social identity theory also explains the strategies to maintain self-esteem in order to face with an unfavourable group identity. Tajfel [14] suggests that migrant groups, as a minority group in the host community, generally experience negative attitudes from local residents, the majority group, and this might be a push factor to drive Isan migrant workers to adopt a variety of responses to change their ethnic identity. In this case, they would be willing to adapt to tourist culture in order to improve their social status to reach the same level as local residents.

CONCLUSION

Tourism in Koh Samui has significantly expanded and attracted workers from many regions of Thailand as well as neighbouring countries. However, Isan migrant workers were the most frequent subject of debate among local residents regarding socio-cultural changes in Koh Samui. Many recent studies demonstrate that the reason most people migrate relates mainly to economic purposes. Isan workers migrate from their homeland to find job opportunities in big cities and at tourist sites. In a tourism context, these Isan migrant workers position themselves at the interface between the host culture and tourist culture. This is because they are more involved in providing the tourist experience. Consequently, this situation puts Isan migrant workers into a position that experiences other cultures more than local residents in Koh Samui. The study found that Isan migrant

workers have gone through more adaptation to tourist culture than local residents. In addition, Isan migrant workers were seen negatively by local residents as they believed that Isan migrant workers were responsible for socio-cultural changes in their community.

REFERENCES

- [1] Berry, J.W. Immigration, acculturation and adaptation. Applied Psychology, 1997, 46(1), 5-34
- [2] Berry, J.W., Phinney, J.S., Sam, D.L., & Vedder, P. Immigrant youth: Acculturation, identity and adaptation. Applied Psychology, 2006, 55(3), 303-332
- [3] Butler, R. W. Tourism as an agent of social change. Proceedings of the international geographical union's working group on the geography of tourism and recreation. Peterborough, Ontario. Trent University, 1975, 85-90
- [4] Cohen, E. Marginal paradises: Bungalow tourism on the islands of Southern Thailand. Annals of Tourism Research, 1982, 9, 189-228
- [5] Dang, A., Goldstein, S., & McNally, J. Internal migration and development in Vietnam. International Migration Review, 1997, 31(2), 312-337
- [6] Ekachai, S. Behind the smile: Voices of Thailand. Bangkok: Thai Development Support Committee, 1990
- [7] Ericker, C. Worldfaith's: Buddhism Chicago: NTC Publishing Group, 1995
- [8] Fuller, T.D. Migrant-native socio-economic differentials in Thailand. Demography, 1981, 18 (1), 55-66
- [9] Hesse-Swain, C. Programming beauty and the absence of Na Lao: Popular Thai TV and identity formation among youth in Northeast Thailand. Geographic Journal, 2006, 66, 257-272
- [10] Kislenko, A. Culture and customs of Thailand. London: Greenwood Press, 2004
- [11] Malam, L. Performing masculinity on the Thai beach scene. Working paper No. 8, Gender Relations Centre, RSPAS, ANU, 2003
- [12] Mason, P. Tourism impacts, planning and management. Oxford: Butterworth-Heinemann, 2003
- [13] Page, S.J., Brunt, P., Busby, G., & Connell, J. Tourism: A modern synthesis. London: Thomson, 2001
- [14] Tajfel, H. Human groups and social categories. Cambridge: Cambridge University Press, 1981
- [15] Ward, C.A., Bochner, S., & Furnham, A. The psychology of culture shock. Hove: Routledge, 2001

The Importance of the available for sale category of financial assets for the Accounting of Insurance Companies

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ABSTRACT

In the discussion regarding IFRS 9 "Financial Instruments" the available for sale category of financial assets is eliminated. But insurance companies argued in comments to the ED/2010/8 "Insurance Contracts" to have an available for sale financial assets category or something similar to be able to build up their business model in the financial statements and to avoid an accounting mismatch in not having such a category.ⁱ The objective of this analysis is to show, whether the insurance industry needs an available for sale category.

DESPERATE TIME REQUIRE DESPERATE MEASURES

If we learned something from the economic crisis is, that when big banks bottom line numbers turn red and their solvency and liquidity plunge, you can be sure accounting standards, and more specifically fair value accounting, will be blamed. And by the time the main accounting standards setters (IASB and FASB) argued that shooting the messenger will not solve the economic crisis, the banks' lobbying machine was already in motion with the clear objective of changing the rules on how financial instruments should be measured and how impairments should be calculated.

In all fairness, the IASB had a difficult job arguing that the current rules worked fine and no changes were required:

Firstly, because IAS 39 has always been a compromise standard that changed quite a few times since its first publication in 1999; a compromise that was never fully endorsed by the European Commission.

Secondly, because many companies and analysts found the current rules confusing and not useful for getting an insight into companies business models and economics. This was no surprise given that under IAS 39 investments can be classified in about five different ways (IAS 39.45) and tested for impairment under about three different models (IAS 39.58), depending on certain criteria that, one would argue, has little to do with the business model of the company. In particular, companies did not appreciate - mainly due to the direct hit on their capital and solvency position - marking to market illiquid investments that they intended to hold for longer term and, as a result of the intense lobbying, on October 13, 2008, the IASB issued amendments "Reclassification of Financial Assets. Amendments to IAS 39 Financial Instruments: Recognition and Measurement and IFRS 7 Financial Instruments: Disclosures" to allow reclassifications of

investments from fair value to amortized cost, and, in the process, set an all-time speed record for amending an accounting standard, which only took them about one week.

SO, WHAT IS CHANGING?

Bowing to pressure from the G20, the Financial Stability Board, and various other stakeholders, the IASB had committed to replace the current IAS 39, by the end of 2010, with a new standard that is simpler and, at the same time, better in providing relevant information for investors and analysts. And they had not only committed to replace IAS 39, but they also promised to do it fast (IFRS 9.IN4-6).

As a result, on November 12, 2009, the IASB published the first phase of IFRS 9 "Financial Instruments", the accounting standard that will replace the current IAS 39. This first phase of the project covers classification and measurement of financial assets only, and it will be followed by new rules on classification and measurement of financial liabilities, impairment, hedge accounting and derecognition (IFRS 9.IN12). We already got an insight into the IASB's direction regarding the new impairment rules since, on November 5, 2009, the IASB published an exposure draft ED/2009/12 "Financial Instruments: Amortized Cost and Impairment" proposing an expected loss model, as opposed to the current incurred loss model under IAS 39.

While the mandatory adoption date for IFRS 9 has been set for 2013, companies are allowed to adopt it as early as 2009 (IFRS 9.8.1.1). However, early adoption is not yet an option for companies reporting under IFRSs in the EU since the European Commission, not yet convinced that the new rules strike the right balance between fair value and amortized cost, put the foot on banks and decided not to endorse the standard in its current form.ⁱⁱ

THE MEASUREMENT MODEL OF ED/2010/8 "INSURANCE CONTRACTS"

On July 30, 2010 the IASB published the exposure draft ED/2010/8 "Insurance Contracts" to improve the accounting for insurance contracts and drafted a measurement model. According to the model insurance liabilities are measured based on the present value of the fulfillment cash flows plus a residual margin when required. The present value of the fulfillment cash flow is made up of the following components:

- unbiased, probability-weighted average of future cash flows expected to arise as insurer fulfills the obligation;
- incorporation of time value of money (discount rate);
- a risk adjustment (ED/2010/8 .16 and 22).

The cash flows are remeasured each reporting period. Any movement as a result of a remeasurement shall be reported in profit or loss. The discount rate and the risk adjustment respectively, shall be remeasured each reporting period and changes are recorded in profit or loss (ED/2010/8 .47).

CLASSIFICATION OF INVESTMENTS UNDER IFRS 9

In contrast, insurance companies shall classify and measure their financial assets according to IFRS 9. Under IFRS 9.4.1, the classification of financial instruments is determined based on how a company manages its financial assets (its business model) and the complexity of the contractual cash flows of those assets. As a result, the number of classifications for assets is reduced from five to three and one impairment model is required for debt investments carried as amortized cost.

Debt investments will be carried at fair value through profit and loss, unless they qualify for amortized cost, because they are held (not necessarily until maturity) to collect contractual cash flows and they are plain vanilla (e.g. government bonds, most corporate bonds, mortgage loans).

Equity investments will be carried at fair value through profit or loss, unless an irrevocable election is made to carry them at fair value through other comprehensive income. This election allows dividends to be recognized in profit or loss, but it prohibits recognition of disposal gains or losses in profit or loss.

IMPACT ON INSURANCE COMPANIES

The current available for sale classification, that insurance companies use for the majority of their investments, does not exist in IFRS 9 and, on its adoption, all these instruments will have to be reclassified to the categories described above. To determine their classification it will be necessary for insurance companies to review:

- their business model for managing investments (i.e. buy and hold vs. buy and sell); and
- the complexity of debt investments (i.e. any features re-leverage, convertibility, options preventing form using the amortized cost classification).

A similar analysis will be required for investments currently classified as held to maturity and loans and receivables to determine whether they will continue to be measured as amortized cost or they will have to be classified as fair value through profit or loss.

IMPORTANCE OF THE AVAILABLE FOR SALE CATEGORY

The majority of insurance company's investments are classified as available for sale, because insurance companies largely have portfolios of assets held for the mid to long term to match their liabilities i.e. they are not trading. Insurance companies use the held-to-maturity category sparingly due to the tainting provisions.

This raises the question, whether insurance companies depend on the available for sale category to classify their financial asset instruments or whether they prefer to reclassify their financial asset instruments to other categories.

This empirical analysis is done based on the annual financial reports of the financial year ended December 31, 2008 of the twenty one member firms of the European Insurance CFO Forumⁱⁱⁱ, as they represent a large share of the European insurance market. The 2008 figures are taken into account, as the IASB provided on October 13, 2008, the option to the finance industry, including insurance companies, to reclassify financial assets by publishing "Reclassification of Financial Assets. Amendments to IAS 39 Financial Instruments: Recognition and Measurement and IFRS 7 Financial Instruments: Disclosures".

AMENDMENT OF IAS 39: RECLASSIFICATION OPTION

IAS 39 was amended following the financial crisis to enable companies to move assets that were fair valued to amortized cost measurement. This would enable them to reduce the volatility on the balance sheet. This was a controversial amendment as it allowed several companies to stop showing the huge losses on certain assets such as subprime mortgages and CDOs.

The amendments were a response to calls from constituents, particularly within the European Union, to create a 'level playing field' with US GAAP regarding the ability to reclassify financial assets. The amendments were issued as an urgent response to the financial crisis, with some aspects of due process suspended, with the agreement of the International Accounting Standards Committee Foundation Trustees. The amendments were effective immediately and could therefore be applied for third-quarter results 2008.

Reclassification is only permitted for debt and equity financial assets, if the asset would have met the definition of loans and receivables had it not been classified as at fair value through profit or loss or available for sale at initial recognition (IAS 39.50A):

- held for trading debt instruments may be reclassified to loans and receivables, if the entity has the intention and ability to hold the asset for the foreseeable future or until maturity;
- available for sale debt instruments may be reclassified to loans and receivables, if the entity has the intention and ability to hold the asset for the foreseeable future or until maturity;

- any other debt or equity instruments may be reclassified from fair value through profit or loss to available for sale or from fair value through profit or loss to held to maturity.

ANALYSIS AND RESULT

It is analyzed how many insurance companies of the population has chosen the option to reclassify financial assets as of the financial crises. If the majority of the insurance companies applies the option, it means, they do not depend on the available for sale category of financial assets. If the majority of the insurance companies do not apply the option, it means the available for sale category of financial assets is important to them.

As a result of the analysis, the majority of the IFRS applying insurance companies (70 %) has not applied the option to reclassify financial assets out of the available for sale category. The three insurance companies (30 %), who have applied the remeasurement option, are entities of banking groups. Consequently, the majority of insurance companies depend on the available for sale category for an adequate reporting of their business model. The remeasurement option does not relate to the business model of insurers. It relates to the business model of banks.^{iv}

	Insurance Companies	
	#	%
Population of analysis	21	
US GAAP applicants	1	
IFRS applicants	20	100
Reclassification option unascertainable	3	15
	17	85
Reclassification option applied	3	15
Reclassification option not applied	14	70

Tab. 1: Use reclassification option

As a consequence insurance companies depend on the available for sale category to match their insurance liabilities with the backing financial assets and to present their underlying business model in the financial statements. Currently it is essential to maintain the available for sale category to address mismatch issues for insurers.^v The available for sale category should be maintained for insurance companies unless another suitable way of presenting financial performance in a fair value context can be identified.^{vi}

CRITIQUE FROM INSURANCE INDUSTRY

IFRS 9 has allowed banks to reflect their business model in their accounting. The business model of insurance companies is different from that of banks. IFRS 9 is not in line with the business model of insurance companies. Insurance companies need to have

their own accounting standard that incorporates their business model, as IFRS 9 does for banks.

“Some insurers will manage their business on a current value basis and the proposals in the ED Insurance Contracts and IFRS 9 allow accounting that reflects the “current - current” nature of that business model. Others, however, adopt a different business model, at least for parts of their business, which reflects the long term stable nature of the liabilities. In such cases the assets held to match their liabilities would be debt instruments often held to, or close to, their maturity, with the objective to hold those assets in order to collect contractual cash flows. IFRS 9 requires such assets to be carried at amortized cost based on a business model criterion and on the characteristics of the asset. However, whilst many of the assets held to back certain portfolios of insurance business would be expected to meet the relevant criteria for measurement at cost, the ED will require a “current” measure for the related insurance liabilities. Accordingly, insurers will be unable to utilize the cost classification for their assets without suffering a significant accounting mismatch.

Financial liabilities held by banks, such as deposits, are able to be carried at cost under the proposed IFRS 9 changes. Banks are therefore able to account for some or all of their activities in accordance with their business model on a “cost - cost” basis, with no disclosure of duration mismatches, whereas insurers will be required to use a “current - current” basis for all aspects of their business. Banks, with which insurers compete for investor capital, are therefore able to avoid accounting volatility in their financial statements, presenting stable earnings patterns irrespective of market “noise” in their core business.”^{vii} Consequently, this approach places insurers at a considerable disadvantage to banks.

REFERENCES UPON REQUEST

The Application of Warren Buffet Strategy to Investing Stock in Indonesia

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ABSTRACT

Indonesia stock market is one of the options of investment. During financial crisis 1998, many foreign and local investors liquidated their investment in Indonesia. Most investors have investment in Indonesia stock market only for short-term. Learning from Warren Buffet strategy is called "Buffettology" who succeed to invest in American stock. It supports by the result of Risk and Return Theories calculation that proves the portfolio consist of stocks that passed the Warren Buffet screening methodology gives higher expected return, lower risk per unit return and only 0.06 as risky as volatility of market movement. Therefore the Warren Buffet Methodology can be one of options for investors to decide their investment strategy in Indonesia. In conclusion, whether the Warren Buffet Strategy can be implemented in Indonesia stock market.

1. Background

Nowadays, in the era of globalization, the investors are looking for more secure investment rather than profit oriented because it was triggered by many financial institutions collapsed in last 5 years. During global crisis, local stock market slumped for about 75%. The uncertain period investment condition has pursued investors to be more analytical in determine their investment method. One investment method that used by Warren Buffet for his lifetime, that will be implemented in Indonesian stock market. This paper will mainly discuss about the implementation of Warren Buffet investment methodology called by "Buffettology" in Indonesian stock market. The difference characteristic of stock market between Indonesian stock market and American stock market would like to try to answer the main question of:

- Does the "Buffettology" can be successfully implemented in Indonesian Stock Market?

2.1. Warren Buffet Investment Philosophy

Warren Buffet has his own investment style. Many of them are against the usual investor's intuition and Wall Street wisdom. The Warren Buffet's investment philosophy moreover describes the personality of Warren when he goes to stock market and known as "New Buffettology". The proven techniques for investing successfully in changing market that Warren Buffet is look at the following criteria:-

- Long term investment
- Contrarian stock market investment strategy

- Identify the healthy and sick business
- Avoid sick business
- Choose the healthy business
- Warren's basic type of durable competitive advantage business
- Time when Warren decide to buy stock
- Identify the high profit margin and high inventory turnover
- Net income to market capitalization

2.2. The Buffettology

The Buffettology or the investment methodology of Warren Buffet consists of steps of screening test for potential investment. The screening test conducted as follows:

2.2.1. The high ROE

The return on equity of the company should be consistent or upward trends for long term periods for at least above 12%.

2.2.2. The earnings per share (EPS)

The earnings per share of the company should be predictable and on the constant upward trend growth over long time period or around ten years.

2.2.3. Conservatively finance.

Warren likes the company that conservatively financed thus has low levels of long-term debt. Warren wants to see whether the long term debt can be paid by the net income of the company in short term.

2.2.4. The competitive product or service.

The product or service of the company should be in the top minds of customers. It also sells the brand-name of product or service that customers are repeatedly.

2.2.5. Doesn't rely on the organized labor force

The heavy investment on capital equipment usually needs high fix cost on labor, this also indicate that the business is price competitive, for example airplane business. Once the pilots strike, the company will lose huge amount in a day.

2.2.6. Perceiving the return on retained capital.

The durable competitive company actually shouldn't spend a lot of their retained earnings for their operation cost, since it usually don't requires high maintenance or high re-investment of their business. Warren calculates the rate of return from the share price and the earnings per share of the company.

2.2.7. The value added on retained earnings should increase the market value.

The company that has the durable competitive advantage also has the book value and stock price

which is increasing over the ten years period. The key is the company can properly allocate the capital into the growth of company's net worth.

2.3. The Buffettology: Future Growth Analysis

Here are below the equitation theory on how Warren Buffet predicts the future growth and price over the companies that pass his screening test.

2.3.1 Determine the Compound Annual Growth Rate

The compound annual growth rate is the year-over-year growth rate of an investment over specified period of time. This calculation used the historically earnings per share over 7 years period. Management's ability to grow the earnings per share of a company is the key to the growth of the shareholder's investment; therefore it should be in the positive percentage value. The increase in per share earnings will eventually increase the market value of the company's stock over time.

2.3.2. Using earning per share annual growth rate to project a stock's future value.

The future value of company that has the durable competitive advantage can be predictable using the previous compounding annual growth rate data.

- **Project future earnings per share**
- **Project future market price**

To project the future market price of the stock requires the historically average price per earnings ratio. Price per earnings ratio is a valuation ratio of a company's current share price compared to its per-share earnings.

2.4. Warren Buffet Portfolio Method

Robert G. Hagstrom through his book of Warren Buffett Way describes Warren's portfolio methods as follows:

- **Find the outstanding company**

Warren never dedicates his attention into the volatility of stock price; instead he analyzes the economic aspect from the core business of the company and also looking for the strong management. He develops the idea of focus portfolio and only chooses the company that he really understands. He found 10 to 20 companies is good, more than 20 companies may lead to disaster.

- **Less is More**

Through his theory of focus portfolio, Warren analyzes that conventional portfolio that based on active and wider diversification is not understandable. Warren limits himself only to few outstanding companies that he really understands. He refuses the main purpose of diversification portfolio to reduce the risk of volatility price, since he does not care about the volatility of the stock's price; he always looks forward the prospect of the business. Moreover, the diversification portfolio theory only pursues investors to invest on the companies that may not really understand well by investors.

- **Put Big Bets on Higher probability Events.**

Warrens never puts his proportion on his portfolio equally. Although after the all the previous screening process all the companies that pass can be conclude as

the outstanding companies but some companies should be more outstanding than the others. The proportion of portfolio based on the potential of projected return, the higher the projected return, the higher the proportion of the stock in the portfolio

3. Conclusion

The conclusions of overall analysis in this paper are as follow:

3.1. Buffettology in Indonesia Stock Market

Through Buffettology analysis, there are only 9 stocks out of 353 stocks that passed Warren Buffet methodology proved:-

- Give higher expected return than market
- Has less risk per unit return than the market
- Only 0.06 as risky as the volatility of market movement

The Warren Buffet methodology can be an option strategy for investors. By following the investment methodology of Warren Buffett that analyze in this paper, investors may get the return on Indonesia stock market that higher than market return.

3.2. The Buffettology Screening Test

Based on the research, from 353 companies that listed on Jakarta Stock Exchange found only 9 companies meet requirements. Many of it failed during the first screening section with only 31 companies passed. These because many of the local companies that listed in Jakarta Stock Exchange are still struggle to establish strong local brand over their product or service. The companies that pass the screening test still dominate by foreign brand over their product or service such as UNVR (Dove, Ponds, Rexona etc.), MERK, FAST (Kentucky Fried Chicken), MLBI (Heineken beers).

In conclusion, the overall result of the implementation of Warren Buffet Methodology in Indonesia stock market shows to give higher expected return with tolerable risk of return and volatility compare to the market only valid for 9 companies or 2.55% of stocks traded at JSX

4. Recommendation

The recommendations of overall analysis in this paper are as follow:

1. Investors who use the methodology of Warren Buffet in Indonesia stock market should be stick into the long term period of investment. Because mainly stocks that passed the Warren Buffet screening test has low volatility, however it will profitable at the long term period.
2. There are 5 stocks (AQUA, FAST, MERK, MLBI, and HMSP) out of 9 stocks that passed overall screening test of Buffettology which they are not blue chip stocks. The investors will probably face the liquidity problem, their investment on that stocks may be rise in the future but they difficult to liquidate or sell the stocks. Investors who will invest in short-term are not recommended to implement the Warren

Buffet methodology in Indonesia stock market because they require high liquidity.

3. The investors have to seek the information of company business activity directly from business owner in order to get accurate first screening result.

REFERENCES

- [1.] Brigham, Eugene F., Ehrhardt, Michael C, *Financial Management Theory and Practice*, 11 editions, Thomson south-western
- [2.] Hagstrom, Robert G, 2008, *The Warren Buffet Way*, PT Bhuana Ilmu Populer, Jakarta.
- [3.] Hagstrom, Robert G, 1999, *The Warren Buffet Portfolio*, John Wiley & Sons Inc, New York.
- [4.] Mary Buffet and David Clark. *New Buffettology: The proven techniques for investing successfully in changing market that have made Warren Buffet the world's most famous investor*, Ebook version.
- [5.] Mujur, Ronaldus, 2009, *Pengujian Relevansi Metode Investasi Warren Buffett di Pasar Saham Indonesia*, Program Magister Administrasi Bisnis, Sekolah Bisnis dan Manajemen Intitut Teknologi Bandung.

An Estimation of American Put Option Price using Quadratic Approximations to the Fractional Black-Scholes Partial Differential Equation

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Abstract

Since the introduction of Black-Scholes' pivotal work (1973), a significant portion of finance literature has been devoted to examine the accuracy of option pricing models. Financial processes are not entirely Gaussian and Markovian in distribution. Therefore, the Black-Scholes model, based on Brownian motion, creates a certain systematic pricing error. Recently, a new development emerges in valuation of option pricing models to improve the pricing accuracy.

Elliott and Van der Hoek (2003) derive a European pricing model called the fractional Black-Scholes (FBS) model by utilizing fractional Brownian motion instead of Brownian motion. Heo et al. (2009) show that the FBS model improves the pricing error in European options compared to the performance of the Black-Scholes (B-S) model using NDX index call options data. Hence, we incorporate the FBS model into analytic approximations for the valuation of the American option pricing models in this study.

One of the best known analytic approximation formulae for pricing American options is the MBAW formula developed by Macmillan (1986), Barone-Adesi and Whaley (1987), and later modified by Ju and Zhong (1999), denoted by MQuad. The underlying assumption in both models is that the American put option price is the sum of European put price and the early exercise premium. They capture the early exercise premium by obtaining an approximating solution to the Black-Scholes differential equation given that the Black-Scholes model provides the European portion of the American option price. Since the FBS model improves the pricing error in European options

compared to the performance of the B-S model, there is clearly beneficial to adopt the fractional Brownian motion in an approximation of American option price.

Recently, Necula (2007) provides the fractional Black-Scholes partial differential equation which replaces the Black-Scholes equation, where the FBS model satisfies to the equation. Therefore the fractional Black-Scholes PDE offers an American-Style pricing model with moving boundary conditions. But the fractional Black-Scholes equation appears to have no exact solution. In this study, we attempt to find two approximated solutions to the fractional Black-Scholes differential equation by following the approaches of MBAW and MQuad methods. Their pricing accuracy is examined using recent actual option data of petroleum industry equity with three measures: mean absolute percentage error with respect to option price (MAPE), mean percent error with respect to option price (MPE) and root mean squared error (RMSE)

As far as we know, this study is the first of kind using the fractional PDE in evaluating American option models. Since the majority of financial products are American-Style, any outcome from this study will have practical implications in financial engineering.

Body

Using the time variable t , $0 \leq t \leq T$, where $t = 0$ corresponds to the issue date of the option and $t = T$ corresponds to its expiration date, we let

$S = S(t)$: stock price at time t
 X : strike price of option
 r : current risk-free interest rate
 σ : stock price volatility

$\tau = (T - t)$: time to expiration
 δ : current dividend yield (for dividend paying stocks).

Let $V(S, t)$ be the price of an option on a stock where S is the price of the stock at time t . Then $V(S, t)$ satisfies the partial differential equation

$$H \sigma^2 t^{2H-1} S^2 \frac{\partial^2 V}{\partial S^2} + (r - \delta) S \frac{\partial V}{\partial S} - rV + \frac{\partial V}{\partial t} = 0, \quad (1)$$

which is called the fractional Black-Scholes PED [Necula (2007)]. The classical Black-Scholes PDE is the special case of the above equation if $H = 1/2$.

If an American put option price satisfies $P = P_E + \rho$ where ρ is the early exercise premium and P_E is the European put value, then, for values of $S > S^*$, the early exercise premium ρ satisfies the fractional Black-Scholes differential equation

$$H \sigma^2 t^{2H-1} S^2 \frac{\partial^2 \rho}{\partial S^2} + (r - \delta) S \frac{\partial \rho}{\partial S} - r\rho + \frac{\partial \rho}{\partial t} = 0, \quad (2)$$

with two moving boundary conditions at the critical stock price S^* :

$$\lim_{S \rightarrow S^*} \rho(S, t) = X - S^* - P_E(S, t), \text{ and } \lim_{S \rightarrow S^*} \frac{\partial \rho(S, t)}{\partial S} = -1 - \frac{\partial P_E(S^*, t)}{\partial S}.$$

The exact solution to (2) is unknown so an approximation solution to the equation is necessary.

For simplicity, let $\tau = (T - t)$, $M_1 = r / \sigma^2$, $M_2 = (r - \delta) / \sigma^2$, and $L(\tau) = H (T - \tau)^{2H-1}$.

The equation (2) becomes

$$L S^2 \frac{\partial^2 \rho}{\partial S^2} + M_2 S \frac{\partial \rho}{\partial S} - M_1 \rho - \frac{M_1}{r} \frac{\partial \rho}{\partial \tau} = 0. \quad (3)$$

By following the similar approach of MacMillan (1986), Barone-Adesi, and Whaley (1987), and Ju and Zhong (1999), respectively, two quadratic approximation solutions to the fractional Black-Scholes partial differential equation can be derived.

From the approximation methods, two new pricing formulas of American option are derived:

Formula A:

$$P(S, t) = \begin{cases} P_E(S, t) + A(K)(S/S^*)^{\lambda(K)} & \text{if } S > S^* \\ X - S & \text{if } S \leq S^* \end{cases}, \quad (4)$$

where $K = 1 - e^{-r\tau}$, $A = -\left(\frac{S^*}{\lambda}\right) \left[1 - e^{-\delta\tau} N(-d_1(S^*))\right]$, $\lambda = \frac{(1-\beta) - \sqrt{(1-\beta)^2 + 4\alpha/K}}{2}$, $\alpha = M_1/L$, and $\beta = M_2/L$;

Formula B:

$$P(S, t) = \begin{cases} P_E(S, t) + \frac{A(K)(S/S^*)^{\lambda(K)}}{1 - \chi} & \text{if } S > S^* \\ X - S & \text{if } S \leq S^* \end{cases}, \quad (5)$$

where $\chi = b \left[\log \left(\frac{S}{S^*} \right) \right]^2 + c \log \left(\frac{S}{S^*} \right)$,

$$b = \frac{(1-K)\lambda'(K)\alpha}{2(2\lambda+\beta-1)}, \text{ and } c = -\frac{(1-K)\alpha}{(2\lambda+\beta-1)} \left[\frac{1}{KA(K)} \frac{\partial P_E(S^*, \tau)}{\partial K} + \frac{1}{K} + \frac{\lambda'(K)}{2\lambda+\beta-1} \right].$$

In both pricing formulas, the critical option price S^* is recovered from the equation

$$X - S^* = P_E(S^*, t) - \frac{[1 - e^{-\delta\tau} N(-d_1(S^*))] S^*}{\lambda}.$$

The option pricing formulas (4) and (5) resemble to the formulas given by Barone-Adesi, and Whaley (1987) and Ju and Zhong (1999), respectively. However, the coefficients α and β involve the term $L(t) = H \cdot t^{2H-1}$ so that the critical prices and early exercise premium are very sensitive to H values which separate Black-Scholes PDE and fractional PDE unless $H = 1/2$.

Because **Formula A** and **B** are approximations, their pricing accuracy must be justified by empirical studies. It has been conventional to use a small-sized simulation data set for justification when a new method is developed. Yet, Kim et al. (2008) and Heo et al. (2010) report conflicting results when models are tested using actual data. Hence we use actual option data of petroleum industry equity options from 2004 to 2009. To evaluate the accuracy of each model, we employ three measures: mean absolute percentage error with respect to option price (MAPE), mean percent error with respect

to option price (MPE) and root mean squared error (RMSE), given by the following formulas:

$$MAPE = \frac{1}{N} \sum \frac{|P_{model} - P_{actual}|}{P_{actual}}, \quad MPE = \frac{1}{N} \sum \frac{P_{model} - P_{actual}}{P_{actual}},$$

$$RMSE = \sqrt{\frac{1}{N} \sum (P_{model} - P_{actual})^2},$$

where P_{actual} is the actual put option price; and P_{model} is the model-generated price; and N is the number of observations.

References on request

The Balance of Internal- and External-Susceptibility Variables on Individual Financial Behavior Change: An Application of the Transtheoretical Model

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Abstract

Fund management with various financial products has intrinsic risks along with financial customers' internal and external susceptibility. This study adopted the Transtheoretical Model (TTM) that incorporates both individual financial characteristics and information susceptibility in order to identify the predecessors of financial behavior change. The result of the study is expected to show that the degree of balance between internal-information susceptibility and external-information susceptibility is significantly related with the degree of the individual's intention of changing financial behavior.

Introduction

The instability of employment and the increased life expectancies have raised the importance and needs of personal financial management. Individual financial customers need more customized and effective guidelines to be successful in the financial market. The previous research showed the increased financial knowledge alone by education programs or the interventions by financial expert systems does not always lead to behavior change (Lyons et al., 2006). The behavior change models are commonly discussed in health arena (Prochaska, 1979; Prochaska, et al., 1994), and also applied in discussing individual's financial management (Ozmete and Hira, 2011). However, as Xiao (2008) indicated, an inventory of financial behaviors needs to be developed to cover all aspects of behaviors relevant to consumer finance. Financial behaviors have been defined in previous studies only for specific research purposes and were not comprehensive.

The present study is developing a financial behavior model in order to: 1) identify the

inclusive set of financial susceptibility variables, 2) explain the relationship between the balance of external and internal variables and individual's intention of changing financial behavior, and 3) suggest a framework of information system as an intervention tool for individual's financial behavior management.

Five Stages of Change

Since individual financial behavior is continuous for lifetime and one of the purposes of the present study is to provide individualized intervention, TTM has been adopted. TTM identifies individual's behavior-change, where the customized intervention could be designed (Kerkman, 1998; Xiao et al., 2001; Shockey and Seiling, 2004; Xiao et al., 2004; Xiao and Wu, 2006). TTM was developed by studying daily human experiences and integrating existing psychotherapy models. Although it has been commonly used in the health arena to help people stop unhealthy behaviors and develop healthy behaviors, the model was named transtheoretical because it combines change variables from across many existing counseling theories (Xiao et al., 2001). One of the key constructs of TTM is the five stages of change: precontemplation, contemplation, preparation, action, and maintenance. The stabilization of behavior change and the avoidance of relapse are characteristic of the maintenance stage (Prochaska, 1994; Prochaska and Velicer, 1997; Xiao et al, 2001; Shockey and Seiling, 2004; Xiao and Wu, 2006).

TTM has been used in the financial behavior context as well (Prochaska and DiClemente, 1982; Xiao et al., 2001, 2004; Shockey and Seiling, 2004). Since the present study is using TTM as the indicator of individual's readiness of changing behavior, the five stages of change need to be converted to the terms in the financial

context. An application of TTM to financial behavior change is, as Tillis et al. (2003) suggested, a process that involves the five integrated stages of: (i) awareness of the problem and a need to financial behavior change, (ii) motivation to make a change in financial behavior, (iii) skill development to prepare for the financial behavior change, (iv) initial adoption of the new financial activity or behavior, and (v) maintenance of the new financial activity and integration into the lifestyle.

Research Model and Hypotheses Development

A number of studies have developed the psychographic variables that influence on the personal financial decision making. However, these variables were described mainly in the framework of the discrete stages of individual's financial behavior change. Instead, self-asset management is presumably more influenced by the balance between internal and external susceptibility as described in Figure 1.

H1. The internal susceptibility alone is not significantly related to individual's stage of change.

H2. The external susceptibility alone is not significantly related to individual's stage of change.

H3. The well-balanced with the high degree to a certain extent in both susceptibilities is significantly related to individual's stage of change.

To measure individual's susceptibility, the present study adopted the widely used psychographic variables: desire, fear, internal barrier, subjective norm, threat, and external barrier, and then categorized them into two groups, internal susceptibility and external susceptibility as shown in Table 1.

Research Methodology

Due to the confirmatory nature of present research, Structural Equation Modeling (SEM) is appropriate to test causal relationships among the variables and test the hypotheses based on prior studies conducted in different contexts (Byrne, 2010). The six psychographic variables were measured by the widely adopted items (the information of the instrument items is available

from authors). The stage of change was measured by the existing instruments developed by Palmer et al. (2008).

A pilot study is being performed. To avoid the knowledgeable subjects who have the financial market experiences to some extent, which are not a construct of the research model, the survey of the pilot study is being implemented on about 200 recent college graduates who just started their first careers at service firms. The company requires the new hires to attend a mandatory two-hour financial management seminar by an expert asset manager. After the seminar, the asset manager offers personal counseling services for a month to only those who desire to receive the service.

The survey is designed to be conducted three times. First, the survey will be conducted before the seminar when the individuals have a comparably low-level intervention. After the seminar, the survey will be conducted again to investigate the possible changes in the susceptibilities and the stage of change by the public intervention (the seminar). Lastly, the survey will be conducted a month after the second survey. The asset manager provides personal intervention to individual participant based on the previous survey results during the period. Analyzing the three survey results is expected to show not only the evidences of the importance of using separate susceptibility, but also guidelines for asset managers in designing the personalized interventions.

The pilot study includes only the first survey. Future studies could include developing an information system intervention. To do that, the research model will be expanded to include the Theory of Reasoned Action (TRA) with more hypotheses, such as the relationship between the stages of change and the attitude toward behavior.

References and Tables available upon request

The Development and Validation of a Service Quality Scorecard in the Business Tourism Industry

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ABSTRACT

This paper explores if service quality can be measured through a Service Quality Scorecard (SQSC) at a business tourism destination. The objective is to explore whether the integration between the four balanced scorecard (BSC) perspectives and the five service quality dimensions can be measured reliably and validly. The research approach is quantitative while factor analytical techniques are applied to analyse the data. A cross-sectional field survey, yielded a sample of 498 respondents in different sections in the South African business tourism industry. Findings suggest that integration between the BSC perspectives and the service quality dimensions can be applied in the measurement of service quality at a business tourism destination. This paper proposes the application of the SQSC for the business tourism industries operating in South Africa allowing for managers in this sector to improve on effectiveness and efficiency levels in their operations.

LITERATURE REVIEW

The business tourism industry is a service orientated industry [1], where the measurement of service quality can be influenced by different dimensions [2-6]. Service quality related research has been done in the tourism industry [7-10], however *service quality* is not observed as an isolated construct, but rather as constituents which are summed to acquire an estimate of service quality [11]. Different service quality models have been developed, of which the SERVQUAL model is most probably the best known. However, it is known that the SERVQUAL model fails to draw on established economic, statistical and psychological theories [12].

Attempts have been made by [13] as well as [14] to investigate whether the management of quality can be improved by a scorecard framework. The BSC developed by [15] has been acknowledged as one of the most influential ideas [16]. The relationship between the BSC and service quality has been investigated [17, 18], however a need was identified to make these conceptualisations more operational [19]. [20] further highlights the inability of the BSC to acknowledge the large number of incomplete intangible assets which have the potential to confuse the classification of the intangible assets. Systems

needs to be developed as a suitable guideline for competitive benchmarking activities through and organisational modelling framework [21, 22] together with long term strategic planning, performance and sustainable tourism management [23-27]. This opens a window of opportunity to investigate the relationship between the [15] BSC and various service quality dimensions [28] in the business tourism industry.

[29, 30] proposed the development of a SQSC for the business tourism industry. Assurance, empathy, reliability, responsiveness and tangibles [28], as service quality dimensions, will be integrated with the four BSC perspectives, namely (1) financial aspects, (2) customer, (3) internal business processes as well as (4) the innovation and learning perspectives [15]. Each of these empirical perspectives with the proposed key performance indicators (KPIs) are discussed below:

According to [31] the *financial perspective* measures the results of actions already taken by the business tourism industry. In this model it is proposed to have (1) *growth in the market share* [32-35], (2) *more profit per business tourist* [33, 36-40], (3) *improvement of the cost structure* [32, 33, 35, 41] and the (4) *global economy* [33, 42-44] as KPIs for this measurement.

Customer value perspective focuses on a strategy to create differentiation and customer value from the business tourist's view point [45]. It is proposed to have five KPIs for the measurement of the customer value service perspective, namely (1) *product / service attributes* [28, 33, 46-54], (2) *reliability* [11, 28, 54-57] (3) *empathy* [28, 49, 50, 58-63], (4) *relationships* [11, 35, 37, 38, 42, 47, 51, 63-69] and (5) *image* [51, 59, 62, 70-77].

Strategies need to be prioritised for the different business processes, resulting in the creation of tourist and shareholder satisfaction through the internal business processes [45]. Quality also depends on the people, processes and environment that create the product and service [78]. Therefore, it is proposed that the *internal business perspective* will address the elements as identified by the triple bottom line including: (1) *people behaviour* [40, 51, 66, 78-84], (2) *people empowerment* [13, 17, 37, 42, 51, 79, 85, 86],

(3) *profitability* [87], and (4) concern for the *planet* [66, 78, 88].

The *learning and growth perspective* aims to create an environment that supports organisational change, innovation and growth [45] in an attempt to clarify its constituents part [89]. This perspective aims to investigate: (1) *strategy* [79, 90-100], (2) *use of technology* [13, 17, 37, 38, 68, 79, 90, 101-108], (3) *organisational culture* [17, 47, 66, 101, 109-115], (4) *assurance* [11, 28, 49] and (5) *responsiveness* [11, 28, 34, 49, 54, 57, 58, 63, 71, 101, 116-118] as KPIs. Based on this discussion the integration of the BSC and SERVQUAL perspectives may inform more comprehensive guidelines in the development of a SQSC [33].

Based on the afore-mentioned theoretical explication this research therefore aims to empirically test the SQSC for the measurement of service quality in the Business Tourism Industry.

RESEARCH DESIGN

The research design is a blueprint that outlines the relationships amongst the selected variables and procedures for each research activity [119] and is discussed under the following two headings:

Research approach

An exploratory study with Likert items was used to measure all the relationships in the current study. [120] advised that all questionnaire statements must be expressions of the respondent's *desired behaviour* and not statements of the *fact*. This approach was followed in the questionnaire design.

A quantitative research approach was followed, while a cross-sectional survey was used to generate primary data. [11] support this research approach as the SQSC is an in-depth study with the purpose of predicting behavior and measured after the service was delivered. A factor analytical approach was followed in the data analysis of this study with the purpose of reaching the research objectives in the *ex post factor* mode.

Research method

The research method is described under the following four headings:

Sampling and participants. A purposive, convenience sample of 498 respondents (business tourists) were recruited from different academic, associations, government and corporate industries that were exposed to the following business tourism products/destinations, namely: game lodges, guest houses, three, four and five star hotels, conference centres as well as airlines, between October 2009 and March 2010.

Measuring instruments. The SERVQUAL model [28] and BSC [15] were the two measuring instruments included in the modeling of the SQSC as explained in

the literature review above. The following underlying theoretical dimensions were included as indicators for each perspective:

Firstly, the *financial perspective* with KPIs growth in the *market share*, *profit per business tourists* and *improvement the cost structure*.

Secondly, the *customer value perspective* with KPIs *reliability*, *empathy* and *relationships* realised.

Thirdly, did *people behavior*, *people empowerment*, *profitability* and *planet* measured as KPIs for the *internal business perspective*.

Lastly, the *innovation and learning perspective* measured three KPIs, namely *organisational culture*, *assurance* and *responsiveness* for the SQSC. Cronbach Alpha reliabilities were computed for each factor, using the three sets of measures [11, 121].

Research procedure. An e-invitation letter was sent out to the business tourist population, who have met the criteria from 2008 - 2009 and who have had access to the internet, inviting them to participate in the survey. A link was provided to access the survey. The survey was constructed in such a manner that participants could complete all sections of the survey at a time, before submitting their final response. Fieldworkers were also trained to collect data from respondents meeting the criteria.

Statistical analysis. Factor analytical techniques were applied to analyse the data. [122] suggests that if the data represents significant deviations, the inter-correlation matrix must be tested for statistical significance after which one can proceed to a factor analysis. Two factor analytical approaches were used to examine the inter-relationships in the measure. Exploratory factor analysis as well as confirmatory factor analysis were used to investigate the theoretical constructs [92]. The confirmatory factor analysis verified the fundamental structure of the four constructs [58]. Internal consistency reliability of the SQSC construct is indicated by the results of the iterative reliability of the data, while the validity of the data indicates whether the dimensions are correctly represented. All inter-correlations were significant on the 0,001 level in the correlation matrix for the SQSC model [122, 123]. Calculations were generated by means of SPSS programme Version 18.

RESULTS

The research results indicated that the SQSC model can be used to reliably measure service quality in the business tourism industry. Fishbein and Ajzen [124] defines reliability as *the degree to which a measure is free of variable error* and validity as *the degree to which an instrument measures the true scores it was designed to measure*. In the assessment of reliability, it is recommended to have a factor reliability above 0.70 [125, 126]. Discriminant validity is the preferred method to measure attitude [127] and is used in this study by comparing the average variance extracted of each individual construct with the shared variance

between individual construct and all the other constructs [128].

The eigenvalues (values larger than unity) resulted in the following factor solutions for each perspective: Firstly, the *financial perspective* retained 10 items where the rotated factor matrix explained 70% of the variance in the factor space. Secondly, retained the *customer value perspective* 12 items with a factor loading explaining 54% of the variance in the factor space. Thirdly, 12 items were retained for the *internal business perspective* with a factor loading that explains 77% of the variance in the factor space. Lastly, 18 items were retained in the *innovation and learning perspective* with a factor loading explaining 64% of the variance in the factor space.

The intercorrelation matrix of the four perspective subscores was subjected to the Bartlett's Test of Sphericity ($X^2(df = 6; p = 0.000) = 1146.989$) and Kaiser-Meyer Olkin (KMO) of Measure of Sampling Adequacy (MSA) 0.806 to test the matrix for factorability. After the third level confirmatory factor analysis on the four perspectives, only one factor, namely SQSC was extracted. The one dimensional SQSC explained 72.9% of the variance in the factor space.

The internal consistency (Cronbach Alpha) reliabilities for each SQSC dimension are as follows: 0.853 for the *financial perspective*, 0.913 for the *customer value perspective*, 0.884 for the *internal business perspectives* and 0.959 for the *learning and growth perspectives*. These reliabilities are supported by the four balanced scorecard perspectives, integrated with the five service quality dimensions, collapsed as one factor, namely the *SQSC dimension* with an overall internal reliability of 0.875. The degree of these reliability estimates, meets suitable standards resulting that correlation attenuations due to measurement error should not be a problem [129].

A Kolmogorov-Smirnov test was conducted on the SQSC dimension to determine the normal distribution statistically [122]. The SQSC dimension had shown a p-value smaller than 0.05, thus rejecting the H_0 . However, the sample size was relatively big (> 200) and the Kolmogorov-Smirnov test is sensitive to larger samples. Test normality is not critical in larger samples as this can result in an underestimation of the variance [130].

Correlation scores between the different perspectives were enhanced due to the short time lag between the measurement of intention and the occurrence of the behavior resulting in the minimization of the chances for contaminating events to intervene [131].

DISCUSSION

The objective of the study was to explore if service quality can be measured through a SQSC at a business tourism destination, through the integration of the four BSC perspectives and the five service quality dimensions. It was found that this proposed SQSC translates the designed objectives into actionable goals and measures which can assist business tourism managers in the effective and efficient management of the service quality operations. It further indicates the criteria used by business tourists in making their evaluation on whether they will return to a destination or not.

Against the background of the identified variables can a logic framework of cognitive constructs and the interrelationship with each other and behavior be determined as proposed by Fishbein and Ajzen [124]. The SQSC appears useful as a foundation for business tourist theory building purposes and has the ability to predict overt behavior from normative and attitudinal variables. The model illustrates the key drivers, measures and interactions important in the prediction of business tourist retention. The aim of the study to develop a SQSC that could effectively measure service quality dimensions was therefore achieved.

Implications and recommendations

The SQSC model still lacks international research in terms of business tourist retention. This can be useful for business tourism managers wishing to produce demand focused theory relating to a specific country or nationality for a better competitive advantage in the business tourism market.

Most studies in general travel and tourism literature have focused on end-users or travellers [73], as in the case with this research. It is therefore suggested to test this model amongst business tourism suppliers and intermediates for an overall assessment of the whole business tourism value chain. The case for business tourism's benefits to a destination is powerful, but it is responsibility of the business tourism managers to apply service quality principles and to make the case a reality.

Conclusion

The purpose of this study was to develop a SQSC for the business tourism industry. Data for this study was sourced from 498 business tourists in various end destinations. This objective was achieved with the development of the SQSC with an acceptable overall internal consistency reliability of 0.875 and also acceptable reliabilities for each of the four perspectives (**financial** – 0.853; **customer value** – 0.913; **internal business** – 0.884; **learning and growth** – 0.959).

REFERENCES

(the list is available upon request)

Cooperative Strategies for Nature-Based Tourism

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ABSTRACT

Nature-based tourism is one of the most interesting tourism features for attracting tourists. Although tourism generates many benefits, it can cause negative environmental impact on a destination. In order to preserve natural resources and minimize adverse environmental impact, ecotourism management needs to be developed. Additionally, to implement ecotourism management successfully, all tourism stakeholders need to cooperate in the plans and policies. This study aims to guide for tourism stakeholders in cooperative strategies for nature-based tourism to maintain its sustainability. A qualitative approach was used in this study.

INTRODUCTION

Nature-based tourism has recently become a popular form of tourism motivating tourists to travel to a destination. It is a kind of tourism that uses a destination's natural resources to attract tourists. Although tourism generates economic, social, and cultural benefits, it can inevitably cause negative impacts on natural areas. The negative impacts can be poor water quality, damaged fauna and flora, noise and air pollution [1], disturbed inhabitants and wildlife [2], also damaged soil and de-vegetation. The cause of the negative impacts on the environment predominantly comes from human behavior involved in the tourism system. The tourism system includes tourists, local people, governments, and the tourism industry [3]. In order to conserve and preserve natural areas, the governments have to manage natural resources effectively and usefully. Not solely governments, but also private tourism stakeholders, local communities, and tourists are responsible for conservation natural areas and minimizing those negative impacts.

NATURE-BASED TOURISM

Nature-based tourism is "tourism primarily concerned with the direct enjoyment of some relatively undisturbed phenomenon of nature" [4, pp. 108]. Ceballos-Lascuráin noted that nature tourism is tourism that uses natural resources including scenery, topography, water features, vegetation and wildlife [5]. From these definitions, nature-based tourism can be regarded as a form of tourism as tourists' activities are associated with nature, such as bird watching, whale viewing, wildflower photography, walks through forests, and exploration of natural areas [6], camping, hiking, skiing, boating [7], diving, snorkeling, fishing, and canoeing.

ECOTOURISM

Ecotourism is a form of nature-based tourism [8]. It is defined as "responsible travel to natural areas that conserves the environment and sustains the well being of local people" [9, pp. 9]. Similarly, the Australia Department of Tourism defined ecotourism as "nature-based tourism that involves education and interpretation of the natural environment and is managed to be ecologically sustainable" [Australia Department of Tourism, as cited in 10, pp. 98].

According to those ecotourism definitions, it appears that there are three components of ecotourism: (1) a nature-based component that takes place in both protected and non-protected areas, (2) a sustainable management component suggesting ecotourism should move 'tourism-centered' to be 'nature centered' approach, and (3) an education/interpretation component that includes education/training programs and interpretation programs to locals and visitors, as they need to reflect stakeholders' and consumers' needs and demands [7] [10] [11]. Boyd and Butler argued that there are eight factors involving ecotourism. These factors are accessibility, relationship between ecotourism and other resource uses, attraction in a region, presence of existing tourism infrastructure, level of skill and required knowledge, level of social interaction, degree of acceptance of impacts and control over level uses, as well as type of management needed to ensure the viability of areas on a long term basis [12].

ECOTOURISM MANAGEMENT

Ecotourism, like other forms of tourism, requires management on the basis of sustainability. According to Herath, ecotourism management has been aware of the sustainable tourism in all ecosystems to develop guidelines for managing ecotourism resources [13]. Funnel and Dowling noted that ecotourism management is carried out through either site or visitor management. Site management concerns how to manipulate infrastructure, where visitors go and what they do (e.g. campsite, trail design); while visitor management focuses on managing visitors by regulating group size and length of stay, enforcing the regulations, as well as providing information and education [14]. Ecotourism management can be related to conservation, waste management, water and energy management, pest management and other challenges, as well as educational initiatives and interpretation [8].

There are five parties involved in ecotourism management: political authority, private agencies, tourism industry, communities, and resource-based industry [12]. Political authority relates to the Ministry of Natural Resources/Forestry and Ministry of Cultural Recreation and Tourism. They authorize the plans in which decisions are made by the political authority representatives, area managers, local communities, and host population. Private agencies include environmental and non-governmental groups. The tourism industry is composed of lodge operators, outfitters, and nature tour operators. Communities consist of urban, rural, villages, and indigenous reserves. Resource-based industry involves forestry, mining, pulp and paper, and agriculture. Firstly, the ministries authorize the policy and regulations regarding the ecotourism criteria, social infrastructure, and natural base, to the four parties working in relationships. Secondly, those four parties need to consult with each other about those regulations [12]. In another perspective, Pickering and Hill recommended that the management strategies to combat tourism problems in protected areas involve infrastructure, education, regulation, research, and monitoring [15].

Even though there are various perspectives with regards to ecotourism management, there are shared views that strategies for ecotourism are related to (1) supportive management from governments, (2) involvement of stakeholders, (3) provision of knowledge on ecological and environmental issues, and (4) support for community participation [2]. Before doing these, governments should plan a policy in which ecotourism adheres to the principles of sustainability in the cooperative approaches between government and stakeholders. The approaches should be focused on environmental philosophies and the aspiration to incorporate [2]. To clearly understand the responsibilities of each party, the tasks for each party are explained below.

Governments

Governments at all levels (nation, region, and local) are involved in ecotourism management [14]. To conserve and preserve natural resources and to minimize negative impact on the environment, the governments need to plan and manage tourism by legislation, regulations, controlling (such as zoning and limiting the number of visitors in an area), designing coordination of policies and programs, providing infrastructure and incentives, in addition to planning and promotion between national and local level ecotourism ventures [2]. Furthermore, governments have to advise and guide private tourism stakeholders, provide knowledge about ecotourism to local communities, and encourage them to participate, as well as promote ecotourism consciousness to visitors.

Private Tourism Stakeholders

One role of governments is to design a program for private tourism stakeholders encouraging them to be an ecotourism member. The program should include information guides, training, education, annual survey, environmental advice and supportive services [2]. Private tourism stakeholders are mainly comprised of tour operators, accommodation providers, and infrastructure facilitators. The tasks of each organization are explained as follows:

- Tour operators should organize ecotourism tour packages which are undertaken to undamaged environmental activities, and control the size of the visitor group [12]. In addition, they need to help make visitors aware of the environment when visiting a destination.
- Accommodation providers should build eco-lodges or eco-cabins, manage water and waste systems, reuse and recycle waste appropriately, and use green products from local communities. Additionally, resorts should implement re-vegetation and rehabilitation programs to preserve plant species [8].
- Infrastructure facilitators should maintain areas in their natural state. Firstly, they should build trails and use non-motorized boats instead of using cars and motorized boats. Secondly, they should neither establish shopping areas nor allocate entertainment facilities on protected sites [16].

Local Communities

Governments and private tourism stakeholders should provide knowledge about ecotourism to local people in a community, and encourage them to participate. Social interaction is a method used to encourage communities and tourists to participate in ecotourism. Social interaction relates to expressing the norms to communities and tourists in which the experience obtained prevents impact on the environment [12]. Additionally, the objective and the form of ecotourism development have to highlight the benefits (e.g. income, employment, and infrastructure) which will be obtained if local communities participate in the plan [2].

Tourists

Governments and other tourism stakeholders such as accommodation and tour operators have to promote awareness and provide knowledge about ecotourism to tourists. In addition, they need to encourage tourists for contributions to the health and viability of the environment [8]. Tourists should change their roles to be eco-tourists who are more concerned in conserving environmental areas. Therefore, tourists should change their thinking from focusing on enjoyable and satisfied experiences to more understanding of the environment,

changing their attitudes, and adopting more responsible behavior to the environment [15]. Furthermore, in order to avoid an ecosystem problem, tourists should not feed unsuitable food to native animals, and should not litter in the protected areas. They should also avoid exploitation of natural resources. For example, they should not go hunting, go fishing, or collect wildflowers and coral.

COOPERATIVE STRATEGIES

Many researchers have noted that the mechanism of ecotourism management is the task of governments in planning the policies and regulations. In addition, governments have to provide knowledge about ecotourism to private tourism stakeholders, local communities, and tourists. They should also encourage them to participate. Without the involvement of tourism stakeholders, communities, and visitors, ecotourism management could not be successfully implemented. From these concepts, a model of cooperative strategies for nature-based tourism (as shown in figure 1) is developed, with the roles of each party already mentioned above.

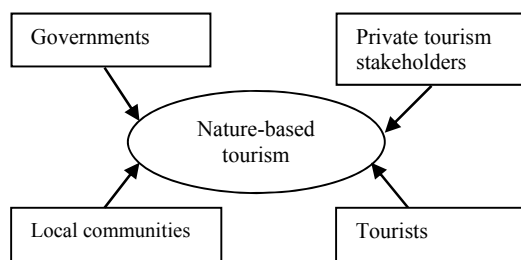


Figure 1: Cooperative strategies for nature-based tourism

Nonetheless, there are important problems which may influence the ecotourism management practices, these concerns factors relating to financial constraint, cross-border supply, consumption abroad, commercial presence, and personal mobility [10].

CONCLUSION

This study provides a guideline for managing nature-based tourism in order to maintain its sustainability. The managing strategies involve four parties: governments, private tourism stakeholders, local communities, and tourists. In order to preserve and conserve environmental areas, government representatives, tourism industry managers, tourists and local communities, need to pay attention to ecotourism management and cooperate in the plans and policies.

Although this research offers many contributions, some limitations should be noted here for future research. Firstly, due to time and budget constraints, tourism government representatives, managers of private sectors, tourists, and local people in communities participating in ecotourism management could not be interviewed for this research. Secondly, the research has focused only on ecotourism management; consequently, the concept of sustainable tourism management, which includes economic, socio-cultural, and ecological management, could not be discussed extensively in this research.

REFERENCES

- [1] Pickering, C.M., Harrington, J., & Worboys, G. Environmental impacts of tourism on the Australian alps protected areas. Mountain Research and Development, 2003, 23(3), 247-254
- [2] Wearing, S., & Neil, J. Ecotourism: Impacts, potentials and possibilities? Oxford: Elsevier, 2009
- [3] Beech J., & Chadwick, S. The business of tourism management. Malaysia: FT Prentice Hall, 2006
- [4] Valentine, P.S. Review: Nature-based tourism. In B. Weiler & C.M. Hall (eds) Special interest tourism, 1992, 105-127
- [5] Ceballos-Lascuráin, H. Tourism, ecotourism, and protected areas. IUCN, Gland, Switzerland, and Cambridge UK, 1996
- [6] Stewart, W.P., & Sekartjajkrarini, S. Disentangling ecotourism. Annals of Tourism Research, 1994, 21 (4), 840-841
- [7] Blamer, R. K. Principles of ecotourism. In D.B. Weaver (eds) The encyclopedia of ecotourism. London: CABI Publishing, 2001, 5-22
- [8] Lim, C., & McAleer, M. Ecologically sustainable tourism management. Environment Modelling & Software. 2005, 20, 1431-1438
- [9] Epler, W.M. Ecotourism: Principles, practices and policies for sustainability. Paris: United Nations Environments Programme, Division of Technology, Industry and Economics, 2002
- [10] Diamantis, D. The concept of ecotourism evolution and trends. Current Issues in Tourism. 1999, 2 (2&3), 97- 122
- [11] Diamantis, D. Ecotourism management and assessment. Croatia: Thomson, 2004
- [12] Boyd, S.W., & Butler, R.W. Managing ecotourism: An opportunity spectrum approach. Tourism Management, 1996, 17 (8), 557-566
- [13] Herath, G. Ecotourism Development in Australia, European Commission, 1995, 442-446
- [14] Fennell D. A. & Dowling, K.A. Ecotourism policy and planning. London: CABI Publishing, 2003
- [15] Pickering, C.M., & Hill, W. Impacts of recreation & tourism on plants in protected areas in Australia. Australia: CRC for Sustainable Tourism Pty Ltd, 2007
- [16] Orams, B.M. Towards a more desirable form of ecotourism. Tourism Management, 1995, 16 (1), 3-8

Gastronomy Tourism as a Destination Attraction: An Examination of Thai's food Image

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ABSTRACT

Gastronomy tourism is moderately a new concept for tourism. It has the literature support analysis that there is a relationship between tourism and gastronomy, little is known about gastronomy tourism. Beside that gastronomy is becoming an important attribute in the development of new destination attraction. Additionally current gastronomy in Thailand is enhancing the valuable source of attracting tourists from all over the world. Thai cuisines have been popular among international tourists. For a circumstance, Tourism Authority of Thailand has been support Thai food as a new tourism products and activities. Moreover Thai food has the opportunity to being marketed and promoted. The purpose of this study was to examine the intention to visit Thailand from international tourist's perspective as a gastronomy destination. In order to investigated the relationship between Thai food image and eating experience has been influenced the international tourists to visit Thailand.

INTRODUCTION

Thailand is becoming one of the top tourist destinations in the world. And tourism industry has become a major economic contributor to its economy (Henkel et al., 2006). Therefore, Thai government has focused on the tourism industry because the governments notice the extraordinary potential. Tourism industry can generate income to the country and potentially increase the growth rate every year (Choibamroong, 2007).

Today's travel industry is very competitive, whether in the same region or different continents. Thailand's tourism has to adapt itself in order to compete with the competitor. Thailand's tourism should be developed new attraction by create an outstanding tourism program. Using culture to enhance a value of tourism product to attract tourists and added revenue to the country (Richards, 2002). Thailand is not only offering cultural attractions, but also provides diverse traditions, uniquely local communities as well as a diversity of food and drink. In addition, Thailand has all facilities that can support the tourism industry, such as department stores, hotels, conference centers and hospitals are distinguished by a multiplicity of high-quality services toward relatively low cost.

Thailand has an outstanding resource, but what might be used as a tool for tourism. Thai cuisine is represented the country's identity. It also plays an important role to differentiate special character to be a destination attraction. (Okumus et al., 2007). Thai food can be considered a fascinating and distinctiveness. And it expresses Thai culture clearly. Thai food has a unique flavor, stunning decoration, delicate task. It also has variety types of food and savory including desserts and variety types of fruits.

Gastronomy has the potential to persuade international travelers to accept the culinary pleasures. The uniqueness of Thai food could be an opportunity for Thailand to become a gastronomy tourism destination in Asia. The previous studies have used food as attractions Bessiere (1998) claimed that traditional food can be a tourist attraction. Tourism is a rural lifestyle. The researcher said that eating local may be a part of the experience when travelling because local foods create entertainment and cultural events. Long (2004) states that food is considered important as an access to traditional of other nations. It can also sell their unique identity and culture. The study of travel behavior of local food helps to understand behavior in tourism. Local food is a basic component of the attribute to add channels destination, increase the growth of consumer happiness (Rand et al., 2003). Visitors can also understand the traditional culture and experience of food consumption (Okumus, 2007).

Long (2004) created term of "Food Tourism" in 1998. Food tourism led food to express their thoughts and experience through other cultures. Researcher claimed that international tourists planning to travel for a basic needs of new experiences for different foods. In addition, Mitchell & Hall (2003) state that food tourism is to visit primary and secondary food production, food festivals, restaurants and places for local food. Food tourism is considered a form of cultural tourism. In addition to gastronomy tourism means more than consumption but also include the direct experience of the food culture of the unique local area (Green & Dougherty, 2008).

Gastronomy tourism refers to a visit that is motivated by an interest in food and drink. Hence, the main motivations for tourist to travel are to experience and taste unique cuisine. Additionally, gastronomy tourism is not only associated with eating and drinking, but also with events ranging from food festivals to farm visits (Smith and Xiao, 2008).

However a question remains mystifying, international tourists who come to Thailand will eat and possible to try the local foods. How do they view and evaluate Thai food and what are their eating experience effect their intentions? Previous studies revealed that image could influence tourists' repeat visitation (Rittichainuwat et al, 2008). In addition, the connection between image and place were a purpose of traveling. These connection was a coherent. Likely the positive image was affect the willingness of travelers (Mackey and Fesenmair, 1997). Etchner & Ritchie (1993) indicate that the destination image based on a combination of what is communicated such as photo attractions, visualization and selection of destination. For a destination marketers image is the most important tool which influence consumer behavior. Consumers know the brand and identify with various images in his mind. Visitors create an image by processing information about the destination from various sources. This information will be held in their mind and construct a meaningful effect on the decision (Leisen, 2001). Destination image concepts for Tourism neither a positive nor negative. It was no different from the emotional decision. Tourists will have a different image in their mind, and different product (Goodrich, 1978). Emphasis on the physical tangible, image elements express emotions about the destination and application to record details from the emotional environment. The destination image depends on the perception of tourists. "All of the images will be collected as a whole. The overall appearance will effect the decision to the destination. Perception of tourists to the destination image is important because it effects their decisions and decision making processes (Crompton, 1979). In addition, Crompton (1979) says that the image of the destination will be an important factor when deciding for a vacation destination. Similarly, the appropriate locations for the destination image were to define the target market and may be different from others. Image location becomes an important factor to understanding and modeling travel behavior and competitive strategy (Echtner & Ritchie, 1993).

In addition, tourist's experiences in food consumption have led their decision through the next time for consumption in the future. Therefore, the production of food destination should have a cultural understanding for tourists. In order to be an effective destination has to improve and increase customer satisfaction. It is important for developers to understand the food management. Consumption plays an important role in shaping tourism as well as making a decision in the direction of new environment. While tourists are not satisfied with experiences of their journey. It will impact negatively on the decision (Hall & Sharples, 2003).

Indeed, the examination into perceived destination food image and consumption experience is crucial to explore the perspective of tourists. To fill the gap in

the gastronomy tourism literature, this study was designed to:

1. Describe the relationship between Thai cuisine and Tourism.
2. Study the influence of Thai foods' image that affect tourism.
3. Study the experience of Thai food factors are influencing the, the intention of tourists.
4. Compare the relationship between the experience of visitors to the image of Thai food with the intention travelers.

METHODOLOGY

A quantitative approach uses in this study to determine the importance of a destination's food image and consumption experience when choosing a gastronomy travel destination. In order to measure the overall international tourist's perception of the Thai's gastronomic products, self experienced information through a questionnaire survey is chosen as a data gathering. This approach is selected to ensure that the information obtained would be based upon their actual experiences in consuming Thai food and beverages and exposing themselves to the food cultures during their period of vacation in Thailand. In order to understand and gain more insight in developing the questionnaire, the instrument is developed by the researchers from a review of literature of previous studies.

The sample population will randomly selected among the international tourists at Suvarnabhumi Airport who had consumed and experienced. It could be argued the western tourists who are at the airport before their departure would have fully experienced the Thai's gastronomic products. Thus, their responses would be based on their true experiences of their vacation. These international tourists were selected due to their different food characteristics. The western food is totally different from most of the Asian cuisines. Their food normally consists of salad, beef, chicken, potatoes and others with a mild taste (Kittler and Sucher, 2004). Therefore, tourists from Asia were not selected for this study because it will not give significant results on how they perceive Thai's gastronomic products (Baum, 2006).

REFERENCES

- Baum, B. (2006). The rise and fall of Caucasian race: a political history of racial identity in New York. New York: New York University Press 2.
- Bessiere, J. (1998). Local development and heritage: Traditional food and cuisine as tourist attractions in rural areas. Sociologia Ruralis, 38(1), 21-34.
- Choibamroong, T. (2007). Amazing trends and issues in Thai tourism marketing: a sustainable path to sufficiency-based national

- development. Annual of International Thai Tourism 2007. Retrieved August 2, 2010, from <http://www.ttresearch.org/pdf/50017.pdf>
- Crompton, J. L. (1979). An assessment of the image of Mexico as a vacation destination and the influence of geographical location upon that image. Journal of Travel Research, 17(4), 18-23
- Echtner, C. M. and J. R. B. Ritchie. (1993). The Measurement of destination image: an empirical assessment. Journal of Travel Research, 31(4), 3-13
- Goodrich, J.N. (1978). The relationship between preferences for and perceptions of vacation destinations: application of a choice model. Journal of Travel Research, 17(2), 8-13.
- Green, P. G. and Dougherty, M.L. (2008). Localizing linkages for food and tourism: culinary tourism as a community development strategy. Journal of the Community Development Society, 39(3), 148-158
- Hall, C., M. and Sharples, L. (2003) The consumption of experiences or the experiences of consumptions? An introduction to the tourism of taste. In C. M. Hall, L. Sharples, R. Mitchell, N. Macionis and B. Cambourne. Food tourism around the world: development, management and markets. (1st ed., p. 9). Great Britain: B.H. Elsevier.
- Henkel, R., Henkel, P., Agrusa, W., Agrusa, J. and Tanner, J. (2006) Thailand as a tourist destination: perceptions of International visitors and thai residents. Asia Pacific journal of Tourism Research, 11(3), 269-287.
- Kittler, P. G. and Sucher, K. P. (2004). Food and culture (4th Ed.) London: Thomson Wadsworth
- Leisen, B., (2001). Image segmentation: the case of a tourism destination. Journal of Services Marketing, 15(1), 49-66.
- Long, L. M. (Ed.). (2004). Culinary tourism. Lexington: University Press of Kentucky.
- Mackay, K., J. and Fesenmaier, D., R. (1997). Pictorial element of destination in image formation. Annals of Tourism Research, 24(3), 537-565.
- Okumus, B., Okumus, F., Mckercher, B. (2002). Incorporating local and international cuisines in the marketing of tourism destinations: the cases of Hong Kong and Turkey. Tourism Management, 28(2007), 253-261.
- Rand, G. E. D., Heath, E., Alberts, N. (2003). The role of local and regional food in destination marketing: a South African situation analysis. Journal of Travel and Tourism Marketings, 14(3), 97-112.
- Richard, G. (2002). Gastronomy: an essential ingredient in tourism production and consumption?. In A.M.Hjalager, G.Richards, Tourism and Gastronomy (p. 3-20). New York: Routledge.
- Rittichainuwat, B. N., Qu, H. and Mongkhonvanit, C. (2008). Understanding the motivation of travelers on repeat visits to Thailand. Journal of Vacation Marketing, 14(1), 5-21.
- Smith, S. L. J and Xiao, H. (2008). Culinary tourism supply chain: a preliminary examination. Journal of travel research, 46(1), 289-299.

Income Shifting Behavior of Japanese Multinationals

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ABSTRACT

This study is an attempt to identify the factors that induce the Japanese listed non-financial multinationals intrafirm trade and their income shifting behavior towards different taxation policies in various countries. The empirical results confer that intrafirm trade within a group of companies will intensify when affiliated companies are located in low corporate tax rates jurisdictions. Furthermore larger firms are inclined toward income shifting rather than small firms. The empirical results reveal that if the local cost of borrowing is high, the affiliate firm will avoid transferring their surplus fund. Regarding the ownership, the wholly owned Japanese affiliates are avoiding income shifting.

Introduction

During the last two decades the world has witnessed a massive regional and financial integration. Many developed and developing countries around the globe have joined number of free trade and capital flight agreements, aiming to smooth their trade streaming among them, lifting up many barriers on trade exchange. This has led the way towards a single market and competition around the world in which companies from these union member countries are stimulated to compete with their rivals. In the same vain the movement of capital becomes easy and swift. Multinational enterprises (MNEs) can choose freely where to locate their capital investments in order to maximize their after tax profit. The firm profit level is not only influenced by the firm specific factors such as productivity, efficiency and user cost but also by exogenous factors such as the local tax rate and interest rate. Therefore, tax policies of countries are also taken into consideration by MNEs in making their decision about investment in a certain location. This issue has forced the multinationals to re-examine their policies and search for alternative strategies. It has led the multinationals towards income shifting activities and intrafirm trade.

This study is an attempt to analyze the taxation effect on Japanese multinationals behavior and their reaction towards the corporate income tax rate. Corporate tax rate is considered as one of the most important issues that affect the MNEs behavior towards shifting income. Taxes have influenced MNEs decisions in allocating their investments. The objective of the study is to estimate the effect of tax differential among the host and home country on the income shifting behavior along with other control variables.

The remainder of the paper is organized as follow. In section two theoretical framework, econometric model and data are presented, followed by the empirical results in section three. Lastly, in section four the conclusion and policy implication is discussed.

Theoretical Framework, Model and data

In order to analyze the impact of differential taxation policies across countries on multinational intrafirm transfer, two measures of intrafirm trade, 'debtors' of the subsidiaries from their corresponding parents denoted by DEB_f and 'debtors' of the parent companies from its affiliates denoted by DEB_p , are used as dependent variables.

To address the taxation influence on the MNEs investment location, most of the literature has focused on the tax rate and the importance of measuring its burden on MNEs and FDI decisions. In order to test the hypothesis, we use a unique firm level financial information and country specific indicators (in which the affiliates are located) to assess the impact of taxation policy on intrafirm trade. The most influential determinant of intrafirm trade is the statutory tax rate. The intrafirm trade within a group of companies will intensify when affiliated companies are located in low corporate tax rates jurisdictions and parent companies income tax rates are higher. Therefore, the expected relationship between the 'debtors' of the affiliates (DEB_f) and statutory tax rate (STR_f) is negative, while the difference of statutory tax rate between the home and host country ($DSTR$) is anticipated to be positively correlated to 'debtors' of the parents (DEB_p).

Size of the firm is an important determinant of intrafirm trade (Desai *et al.*, 2000a). Larger firms are more inclined to income shifting than their smaller counterparts. Larger firms are more diversified, profitable and have stable cash flows. Since, in order to maximize its profit level they shift their income from the high taxation zones to low tax jurisdictions. Therefore, size of the firm, as measured by the natural log of total capital ($\ln CAP$), is expected to be positively correlated with the intrafirm trade. Interest rate also plays an important role in shifting income between the affiliate and its parent company. The higher interest rate in the local financial market will discourage the income shifting. The firm either affiliate or parent company has the opportunity to invest the surplus fund in the local financial market rather than shifting it to its affiliate or parent firm. Furthermore, the country specific lending rate is an appropriate proxy of refinancing costs. Therefore, the interest rate peroxide by the local lending rate is anticipated to have a negative relationship with debtors. The macroeconomic environment differs drastically from country to country. In order to control for macroeconomic variations, cultural gaps and transaction costs, the country specific GDP is used as control variable in the regression analysis.

Ownership structure of multinational has a significant effect on the income shifting activities. Theoretically, profits of the parents are more strongly correlated with larger ownership stake of affiliates, since the incentives for parents is to shift income towards them rather than

partially owned, Kant (1990). Therefore, in this study a dummy variable indicating ownership status of subsidiaries (DWO) is employed in the standard model which is assigned a binary value of 1 if the affiliate ownership standard is encountered and 0 otherwise.

A higher distance between the affiliate and parent company may lead to a higher transaction cost of intrafirm income shifting. Therefore, the expected relationship between intrafirm transfers and distance variable *DIST*, indicated by how far the affiliate is located from its parent company measured in kilometers, is negative.

In order to control for the systematic differences in financial structure across industries, due to differences in systematic risk and unequal possession of fixed assets, 17 industries dummy variables are included in the model.

Based on the above discussion, the following two general econometric models are developed in order to carry out the empirical analysis.

$$\ln(DEB_{f,t}) = \beta_0 + STR_{f,t} + \beta_1 \ln(CAP_{i,t}) + \beta_2 \ln(IR) + \beta_3 DWO + \beta_4 DWO(STR_{f,t}) + \sum_{j=1}^{17} \delta_{ji}(DMU_j)_{i,t} + \varepsilon_{i,t} \quad (1)$$

$$\ln(CAP_{i,t}) = \beta_0 + STR_{f,t} + \beta_1 \ln(IR_{i,t}) + \beta_2 DWO + \beta_3 DWO(STR_{f,t}) + \sum_{j=1}^{17} \delta_{ji}(DMU_j)_{i,t} + \beta_4 \ln(GDP) + v_{i,t} \quad (2)$$

All variables are represented in natural logs except for *STR_f* and dummy variables. *DEB_f* represents the debtors item of the affiliate, *STR_f* indicates the local statutory tax rate of the affiliate, *CAP* denotes the total capital of the affiliated company, *IR* is the local long term interest rate for the affiliate, *DWO* is a ownership dummy, *DMU_j* is a vector of industries dummies, and ε is the white noise error term. In the first stage, capital of the firm will be endogenous to the model, \ln capital is regressed on all the explanatory variables in equation (1) and \ln GDP as indicated in equation (2). In the second stage the predicted \ln capital is used as explanatory variable in equation (1) in order to avoid the endogeneity problem in the system of equations. Therefore, the line of arguments persuaded here is to use 2SLS estimation method to overcome the problem of simultaneity in the model.

In the next step debtors of the parent company is regressed on the difference between the statutory tax rate of home and host country, total capital, lending rate, distance, *DWO* and the industry dummies as represented in the following system of equations. As argued above capital may be endogenous to the model, hence 2SLS method is used to avoid the problem of simultaneity.

$$\ln(DEB_{p,t}) = \beta_0 + DSTR_{i,t} + \beta_1 \ln(CAP_{i,t}) + \beta_2 \ln(IR_{i,t}) + \beta_3 \ln(DIST_{i,t}) + \beta_4 DWO + \beta_5 DWO(STR_{f,t}) + \sum_{j=1}^{17} \delta_{ji}(DMU_j)_{i,t} + \varepsilon_{i,t} \quad (3)$$

$$\ln(CAP_{i,t}) = \beta_0 + STR_f + \beta_2 \ln(GDP) + \sum_{j=1}^{17} \delta_{ji}(DMU_j)_{i,t} + v_{i,t} \quad (4)$$

All variables are represented in natural logs except for *DSTR* and dummy variables. *DEB_p* represents the firm debtors of the parent company, *DSTR* indicates the tax rate difference between the home and host country, *DIST* is the distance between the parent and the affiliate, *DMU_j* is a vector of industries dummies, and ε is the white noise error term.

The sample used in this paper contains information on 460 non-financial Japanese foreign affiliates in OECD countries owned by 251 publicly listed (Tokyo Stock Exchange) Japanese parent companies during the period 2000 to 2009. The data employed in the analysis has been taken from the Bureau of Van Dijk.

Empirical Results

The empirical results using the two stage least square estimation technique to estimate equation 1 and 3 are tabulated in table 1 and 2. Two general observations may be made, on the one hand, most of the regression coefficients are highly significant statistically, however, the sign of some variables are not consistent with the predicted signs such as for differential tax rates and distance variables in the second model in specification (5). On the other hand, the estimated magnitude of these explanatory variables is markedly small but highly statistically significant.

Table 1 presents the results of the first model. The size of the multinational firms is positively correlated with the intrafirm trade in all the four specifications suggesting that the larger affiliate firms are more intensive in shifting income. The coefficients of the capital variable have a positive and statistically significant impact on the debtors of affiliates, indicating that intrafirm trade is more active in affiliates associated with larger invested capital. The interest rate which reflects the opportunity for the affiliate to invest its surplus fund in the local financial market rather than shifting it to its parent company has a negative and highly significant relationship with the intrafirm trade as expected. It means that affiliated companies quickly proceed in paying back their debts and reduce their liabilities to avoid higher interest payments.

The coefficient of the ownership dummy is negative and highly significant statistically. It suggests that the income shifting behavior vary inversely with extent of ownership claim in the affiliate by the parent company. It can be expected that affiliates, which are not wholly owned, exhibit higher intrafirm sales, since dominant shareholders have an incentive to shift profits into its wholly-owned affiliates. The wholly owned Japanese affiliates are indulged in low income shifting rather than the partially owned affiliates.

The result regarding the statutory tax rate indicate that local tax has a significant negative effect on intrafirm sales. The coefficient is highly significant and reveals that affiliates located in lower tax zones will be tax induced to shift more to their parent company. However the coefficient becomes positive in the first specification when ownership dummy and the cross product of statutory tax rate with ownership dummy are excluded from the model. It indicates that the result of statutory tax rate is sensitive to the ownership status of the affiliate.

TABLE 1
Sensitivity of Japanese MNEs intrafirm sales to corporate tax rates

Variables	Dependent variable: Natural log of Debtor for Japanese MNEs parent companies			
	(1)	(2)	(3)	(4)
Intercept	0.178	1.010*	1.164*	1.057*
STR	0.002	-0.012*	-0.005**	-0.018*
CAP1	0.712*	0.666**	0.605*	0.687*
Log(LR)	-0.450**	-0.393**	-0.542*	-0.334**
DWO	-	-0.315*	-	-0.579*
DWRxSTR	-	-	-0.008*	0.007**
Goodness of fit and other statistics				
R ²	0.236	0.261	0.237	0.276
Adjusted R ²	0.236	0.261	0.236	0.275
F- Statics.	473.546*	406.694	356.203	350.622

Note: *,** represents significant at 1% and 5%.

Furthermore, the interaction term of the statutory tax rate and ownership dummy is positively associated with the income shifting. Tax rate differential in interaction with the ownership dummy indicates significant differences in income shifting behavior when the ownership status runs from wholly owned to partially-owned. The positive effect is supported for majority-owned subsidiaries in fully specified model.

Similar to the first set of regression, the results of the second model are presented in table 2, which can provide deeper insights into tax effects on intrafirm sales carried out with the parent company.

TABLE 2
Sensitivity of Japanese MNEs intrafirm sales to the difference corporate tax rates

Variables	Dependent variable: Natural log of Debtors for Japanese MNEs affiliated companies				
	(1)	(2)	(3)	(4)	(5)
C	6.055*	7.712*	6.011*	6.165*	6.406*
DSTR	0.017*	-0.028*	0.016*	0.003	-0.024*
CAP2	0.010*	0.024*	0.013*	0.012*	0.006*
LOG(LR)	-0.512*	-0.695*	-0.537*	-0.545*	-0.503*
LOG(DIST)	0.141*	-	0.144*	0.136*	0.154*
DWO	-	-0.184*	0.068*	-	-0.525*
DWRxSTR	-	0.032*	-	0.013	0.048*
Goodness of fit and other statistics					
R ²	0.157	0.132	0.184	0.211	0.274
Adj. R ²	0.157	0.131	0.1835	0.210	0.273
F- Statics.	193.75 3	125.617	187.072	220.589	260.598

Note: *,** represent significant at 1% and 5% respectively

The invested capital which reflects the size of the firm has a positive significant relationship with the debtors of parent company, consistent with our prior expectations. It shows that larger invested capital business entities are more inclined to shift their income. Interest rate has a negative relation with the income transferring activities. It indicates that if the local cost of borrowing to finance

new investment and assets is high, the affiliate firm will avoid transferring their surplus fund to its parent.

The difference between the host country tax rate and home country does not reveal a clear direction of causation to the debtor of the parent company. It has a positively association with the intra firm trade as expected except specification two and five. The result is sensitive to the inclusion of the ownership dummy variable and its interaction term with the DSTR in the model. The dummy variables, which indicate financial interests as well as complete ownership by a Japanese parent is same as used in the former set of regressions presented in table 2. Distance variable (DIST) is statistically significant and positive. This result is not consistent with our prior expectations. It may be due to the large number of South Korean companies in our sample and the short distance between Japan and South Korea may influence the estimated result.

In general, our result is in line with theoretical aspects that MNEs are more influenced by tax variations and utilize tax planning activities and apply profit shifting techniques.

Conclusion

In this study, factors that induce the Japanese listed non-financial Multinationals intrafirm trade and their income shifting behavior towards different taxation policies in various countries are identified. It provides a deeper insight concerning multinationals income shifting behaviors regarding taxation, which has attracted considerable interest of many governments' agencies and policy makers. In term of econometric methodology, the two stage least square estimation technique (2SLS) is used to establish the relationship between intrafirm sales and its determinants. The empirical results confer that the statutory tax rate does matter. Intrafirm trade within a group of companies will intensify when affiliated companies are located in low corporate tax rates jurisdictions while parent companies are in higher tax zones and will decline when affiliated companies are located in a high corporate tax rate zones. Furthermore, larger firms are inclined toward income shifting rather than small firms. The empirical results reveals that if the local cost of borrowing to finance new investment and assets is high, the affiliate firm will avoid to transfer their surplus fund. Firm ownership is also playing a significant role in profit sifting. The wholly owned Japanese affiliates are avoiding income shifting.

As a policy implication the local authorities should avoid higher tax rate in the prioritized industrial sectors which play a significant role in boosting the economic growth and local employment. Furthermore, foreign direct investment and capital flights which are major causes of economic downturn can be controlled with additional economic factors such as interest rate and the ownership of the firm.

References

Available on request.

Dynamic Relationship between Indonesia Capital Market and Money Market during Asian Financial Crises

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ABSTRACT

The main purpose of the study is to identify dynamic relationship Indonesian capital market and exchange rate of rupiah among other currencies affected by Asian financial crisis. Co-integration test showed that USD has the most significant impact to the capital market, with negative direction. It also shows that IHSG has negative relationship with USD, and has positive relationship with three other currencies. Weak-exogeneity test shows a consistent result where exchange rate has stronger impact than capital market.

Keywords: Cointegration, Exchange rate, Vector Error Correction Model, Indonesia

INTRODUCTION

Economic crisis in 1997 that hit most Asian countries had severely weakened regional market in South East Asia and Asia Pacific. The reactions of the governments were varied; Indonesia and Thailand responded by accepting IMF assistance, floated their currencies and removed the limitation of foreign investor ownerships in their capital markets. The above policy gave opportunity to diversify their investment to capital markets in different countries. Malaysia responded by rejecting IMF assistance, controlling its currencies, and pegged ringgit to US dollar. The objectives of the study is to test short run and long run relationships between Indonesian Capital market and several currencies in Asia Pacific countries (US dollar, Japan Yen, Thai Baht, Malaysian Ringgit) affected by economic crisis.

With the development of emerging market, the free limitation of ownership of foreign investors in their capital markets, and free floating regime, it is very interesting for academics and practitioners to study the relationship between money markets and capital markets as well as integration among capital markets [4], [5], [6]. The shift from managed floating rate to free floating rate had opened opportunity for international investment to flow freely among countries with huge volume and frequency. The policy for free limitation of ownership for foreign investors gave opportunity to diversify their investment to capital markets in different countries. Theoretically, these policies will encourage more

integration between country's capital market and international capital markets.

The severe Rupiah depreciation since July 1997 had pushed Indonesian Governance to free band intervention and applied free floating exchange rate system on August 14th, 1997. Since then, Rupiah had been freed to find new equilibrium to other currencies, although with very low rate. Rupiah depreciation had a significant impact to Indonesia Capital Market. Since the second week of July 1997, Indonesian Composite Index (IHSG) started to slide and dropped to level of 458 point on September 1st, 1997 which means that IHSG had fallen by 54 percent. The economic crisis had driven Indonesian government to release the limitation of foreign investor ownership in Indonesia in September 1997, which means that foreign investor are allowed to own 100 % of ownership in company that listed in Jakarta stock Exchange.

DATA & METHODOLOGY

The data used was weekly data with observation period between January 5th 1996 and October 7th 2001. IHSG represent Indonesian composite stock market index, while all exchange rate is represented in domestic currency (Rupiah). Variable *usd* represent exchange rate rupiah against US dollar, *yen* represent exchange rate rupiah against Japan Yen, *ring* represent Malaysian Ringgit, *baht* represent Thailand Baht. Higher value of *usd*, *yen*, *ring*, *baht* mean Rupiah increased, while foreign currencies are decreased.

Cointegration

If non-stationary time series have the same order of integration (e.g. of order one) and if a linear combination of these time series exists is stationary, these series are referred to as being cointegrated [2]. Cointegration means that time series move together in the long run. Consequently, the error term resulting from the linear combination of the aforementioned time series quantifies the deviation of the time series from their common long-run relationship and can be used to predict their future values (Granger, 1986). In this context, the consideration of a cointegration relationship is equivalent to the existence of an error correction mechanism (Granger's Representation Theorem).

In order to test for cointegration, VECM is implemented;

$$\Delta Y_t = \sum_{i=1}^{k-1} \delta_i \Delta Y_{t-i} + \pi \Delta Y_{t-i} + \epsilon_t \dots \dots \dots (1)$$

Whereas $\delta_i = -I + \pi_1 + \dots + \pi_i$ with $I = 1, \dots, k-1$ and $\pi = -(1 - \pi_1 + \dots + \pi_k)$. The vector Y_t contains the endogenously esteemed variables and has $p \times 1$, where p is the number of endogenous variables, and ϵ_t of independent and identically distributed errors with follow a normal distribution with zero mean. The rank (r) of the long run coefficients matrix π belonging to the error correction term Y_{t-i} . If the rank of the matrix π is greater than zero, or less than number of endogenous variables, the matrix with dimension $p \times r$ can be decomposed into matrix α and β . The resulting matrix α contains the speed of adjustment coefficient to long run relationship. The matrix β contains the coefficient of the cointegration relations.

$$\Delta Y_t = \sum_{i=1}^{k-1} \delta_i \Delta Y_{t-i} + \alpha(\beta' \Delta Y_{t-i}) + \epsilon_t \dots \dots \dots (2)$$

In order to determine the number of long-run relationships, the trace statistic and the maximum eigen value test can be used;

$$\lambda_{trace} = \sum_{i=r+1}^p \ln(1 - \lambda_i) \quad \text{and} \\ \lambda_{max} = -T \ln(1 - \lambda_{r+1}) \dots \dots \dots (3)$$

Short run relationship can be expressed by $\sum_{i=1}^{k-1} \delta_i$ which shows short-run disequilibrium relationship among variables. PVECM (parsimonious vector error correction model) can be used to analyze short-run disequilibrium relationship among variables [1]

RESULTS AND DISCUSSION

The results and discussion can be explained here:

1. All variables are stationer in order I (1), indicates that cointegration equation can be implemented.

$$\text{Ihsg } t = -16884 \text{ usd } t + 59 \text{ yen } t + 3716 \text{ ring } t + 146 \text{ baht } t$$

It can be seen that Indonesian Rupiah exchange rate to US dollar (USD) has the most significant impact in that equation, but has negative direction in the equation. It also shows that IHSG has negative relationship with USD, and has positive relationship with other three currencies (Yen, Ring, Baht.)

Negative direction of USD shows that the greater USD value (it means that Rupiah appreciated and US dollar depreciated) will decrease IHSG (Indonesian Composite Index). It is in line with investor's preferences that will invest in the money market when Rupiah appreciates. On the other hand, when Rupiah depreciates, investor will invest in capital market. Opposed to USD, Yen, Ringgit and Baht have the same direction as IHSG. When the three currencies values are greater (Rupiah appreciated), will drive IHSG up.

Co-integration equation before economic crisis:

$$\text{Ihsg } t = -27492 \text{ usd } t - 116 \text{ yen } t - 6731 \text{ ring } t + 1414 \text{ baht } t$$

Negative direction of USD shows that the greater USD value (it means that Rupiah appreciated and US dollar depreciated) will decrease IHSG (Indonesian Composite Index). It can be seen that USD have the most significant impact on that equation.

Co-integration equation after economic crisis:

$$\text{Ihsg } t = 63215 \text{ usd } t + 157 \text{ yen } t - 18444 \text{ ring } t - 153 \text{ baht } t$$

The result of cointegration equation shows that USD and Yen have positive relationship with IHSG. Positive direction of USD shows that the greater USD value will increase IHSG. On the other hand, Ringgit and Baht have negative direction with IHSG.

2. Weak of exogeneity test shows a consistent result where exchange rate has stronger impact than capital market all of the periods. USD and Ringgit shows a dominant impact in the long run. IHSG did not show a significant contribution in long run equilibrium. In other words, IHSG is a weak exogeneity which drive co movement of co-integration variables.

Weak of exogeneity test before economic crisis shows the same results as all of the three periods. Weak of exogeneity test after economic crisis shows that there are no significant endogenous variables. Therefore, we use combined restriction test which concluded that USD and Ringgit have more impact (contribution) than IHSG, Yen, and Baht.

3. PVECM results that are short-run disequilibrium relationship among variables in all the periods show that there was a granger causality to the model between Dusd, Dring and Dbah with great differences in direction and magnitude of regression coefficients. The existence of granger causality on the PVECM had driven writer to make a hypothesis that there is a relationship among the three countries currencies as impact of monetary crisis: United States as a significant contributor (a dominant factor and also as

the major IMF donor), Thailand as the first country hit by the monetary crisis (spread contagion effect to its neighboring countries), accepted IMF, eliminated fixed exchange rate, liberalized its capital market, and Malaysia as a country who responded differently by rejecting IMF, applied fixed exchange rate. In short-run disequilibrium, crisis that hit Thailand spread immediately ('contagion effect') and affected its relationship to its neighboring countries (including Malaysia and Indonesia). US dollar funds flew from US to IMF and then Thailand was responded by countries in the region. Whereas, Malaysia's monetary authority which different from those of others was responded directly by its neighboring countries. The hypothesis shows that a crisis, funds flow, information or different policies from monetary authority can affect short-run equilibrium in a region.

4. Variance decomposition can be used to identify shocks to show which variable is the most important in explaining through time¹[3]. In analysis of total periods, USD has a very significant impact (dominant) in absorbing other currencies information, and the impact is greater on the after crisis periods. However, the greatest impact was from Thai Baht.

5. The analysis of impulse response function before crisis shows how strong Thai baht in giving shock to other endogenous variables. It supports a previous conclusion that with PVECM analysis, variance decomposition and impulse response that Thai Baht had move aggressively.

6. The analysis of recursive eigen value test among endogenous variables shows high but unstable eigen value in the early stages of crisis (1998), then decreased and stable in 1999 to end of 2001. It shows that in the beginning of the crisis, the relationship between variables were very close (high eigen value) and interdependent to each other. After the crisis, they eventually achieved a new stable equilibrium (although eigen value had decreased which means the relationship between variables had also decreased).

REFERENCES

- [1] Doornik, J.A. & Hendry, D.F. Modelling Dynamic Systems using PcGive; Volume II 3rd edition, London: Timberlake consultants Press. (2006)
- [2] Engle, R.F. & Granger, C.W.J. Co-integration and error correction. Representation, estimation and testing, *Econometrica*, 55 (2), 251 – 275
- [3] Eviews 7. User Guide Manual. Timberlake consultants Press. (2009).
- [4] Nieh, C.C. & Lee, C.F. Dynamic relationship between stock prices and exchange rates for G-7 countries. *The Quarterly Review of Economics and Finance* 41, (2001), 477-490
- [5] Tse, Y.K. & Ng, L.K. The cointegration of Asian currencies revisited. *Japan and the World Economy* 9, (1997), 109 – 114
- [6] Yau, H.Y. & Nieh, C.C. Testing for cointegration with threshold effect between stock prices and exchange rates in Japan and Taiwan. *Japan and the World Economy* 21, (2009), 292 – 300

¹ Dave Tufte's Primer on VAR's and VECM's

Expected Factors Affecting Accountant's Effectiveness and Performance – Case Study of Service Sector in Thailand

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ABSTRACT

Service workers will lead to better effectiveness in business by having a positive attitude towards the service, service mind oriented, knowledge of the work, and responsibility, etc. Those who perform their services efficiently will definitely lead to business success and customer satisfaction. The said success of business relies partly on accounting information in planning and decision making. Accounting is part of the service. Although intangible, it can create value for both internal and external users of the organization. Therefore, an accountant who can work effectively will enable the organization to achieve the expected objectives as planned. Therefore, it is necessary to find out factors enabling the accountant to work effectively.

Keywords: Accountant, Service sector, Thailand, Human resource

INTRODUCTION

In the present day, the globalization is the major cause which impacts directly to a style of operating for all business units. Unless it is encountered by this phenomenon, the style of operating will still be based on a Scale Based Competition. Unfortunately, the stream of evolution is very fast. So, it is unavoidable to evolve an old fashion way of operating to a modernized style of operating. There are at least 3 modernized techniques of administration to survive in the modern trade which are Speed Based Competition, Intangible Assets Focusing, and Creativity Based Competition. According to this era, all business units in Thailand have to re-engineer themselves to meet the changed consumer behaviors. To achieve their goals, every firm cannot plan the best strategic plan without accounting information.

A quality of accounting information associates the executives to plan a strategy and to make a decision. It is affirmatively that the higher quality of accounting information, the higher benefit the firm will get. Eakarathaporn (2002) pointed out that a incorrect information which was provided to end-users would challenge the firm to encounter a financial distress problem. For example, Enron, an America based

company, used a creativity accounting to provide a good performance of itself with a carelessness of true information content. Although the quality of accounting information is very important to every business, the way to obtain and process it is very difficult. Most people believe the core of quality is an accountant. Charoenkittiwarakorn (2003) analyzed that a real cause of World Com tragedy was caused by an accountant who made a terrible work on accounting book. With this action, enormous reported profit was suddenly transformed to a huge loss, and then it went bankruptcy at last.

The objective of this study is to investigate the factors which affect the effectiveness of accountants' performance. In addition, this study focused on the service business which operates only in Thailand. From the reported GDP of government, it provides a continuous growth in the past few years. Furthermore, one of the causes of growth is a variety of service business which is slightly increasing in this sector. So, it cannot be denied that this sector will have fierce competition in the future. To take advantage among competitors, every firm has to have a good quality of accounting information. Finally, there are a lot of companies which can maintain their status in this sector, but some cannot. It is possible that all competitively strong companies have efficient accountant with effective performance. Moreover, it is also true that the accountants of these achieved companies also share similar characteristics to provide high performance.

Literature Review

According to the objective of this study, it is necessary to separate reviewing literature into 2 groups. The first part of the reviewing literature is to understand the nature of service sector of Thailand. According to Department of Business Development, Thailand, there are 3 categories of service business. Firstly, the developing group, this group includes a new comer and a high potential firm which lacks off experience in this sector. The sub-sectors for this group are construction and maintenance business, education research and consultant business, and specialist education business. Secondly, the developed group, this group has a high potential and a high experience with its business already. The sub-sectors in this group

are hospitality business, restaurants, and healthcare business. The last group of service sector is the guardian group. This group is still supported by the public. The example of this group is maintenance business.

Another part of reviewing literature is the ideal factors which is assumed that they affect the effectiveness of accountants' performance directly. After reviewing literatures, this paper identifies 2 categories which are the Individualism Characteristic Factor and Organization Culture Factor. The former factor is the personal characteristic of accountants. Nutayakula (2005) pointed out that the independent work and personal returns involved the effectiveness of accountants' performance. Polruerngrong, Piimane, and Prathum (2010) discovered that cooperative skills lead to the good quality of accountants' action. To illustrate the cooperative skill, accountants should have a good Information Technology skill, evaluation skill, and human relation skill. These skills are related directly to a quality of work.

Actually, Soda, Sirisom, and Polnikornkija (2008) found these factors too, but they focused on another type of accounting work, internal audit. This paper also assumed that these factors from the different accounting work should be applied to accountant's performance, because the internal auditors' and accountants' work stem from the same root which is the accounting concept. In addition, Seeson, Ussahawanitchakit, and Phonnikornkij (2007) met different skills which were professional code of ethics, social responsibility, and continuous learning. These factors are also accepted to be a good signal to the effectiveness of accountants' performance.

Another point of view about the factor which involves the effectiveness of accountants' performance is the Organization Culture Factor. Thanon (2010) employed the organization visualization and organization attraction as factors which should affect the effectiveness of accountants' performance. Surprisingly, these factors were used to provide a positive manner of relationship between them and their good quality of work.

Lastly, this paper expects the positive relationship between the independent variables and dependent variable. According to the objective of the study, the independent variables are the factors which are assumed to affect the effectiveness of accountants' performance. The dependent variable of this study is the effectiveness of accountants' performance which is measured from self evaluation.

METHODOLOGY

The sample of this study is accountants who have over 3-year work experiences in the service business. With this condition, this paper needs to control the internal factor of every accountant who is totally different

from each other, but at least the experiences in job should give them an idea about the ideal characteristic of accountant who has a high potential to create a good quality for their job. In addition, these people have to work with the firm as a permanent job. Especially, the firms which are used as the sample must be Department of Business Development, Ministry of Commerce and listed in the Stock Exchange of Thailand.

The sample size includes approximately 400 accountants. The multistage sampling is used as the sampling selection. Firstly, the stratified sampling is used for separating the business group. Then, sub-sectors within the service groups was randomly selected by a computer from the first stage of sampling.

Exploratory Factor Analysis (EFA) will be used to determine the characteristics of the variables together and Principle Component Analysis (PCA) to group the independent variable and the dependent variable as uncorrelated components to a group of a set of uncorrelated variables which the assumptions of multiple regression analysis (Stevens, 2002). Multiple Regression will be employed to predict the performance of the accountant of service sector in Thailand.

REFERENCES

- [1] Baugher, D. Measuring effectiveness. United State of America: Jossey-Bass, 1981.
- [2] Charoenkittiwarakorn, A. eLeader, 2003, 127-128.
- [3] Eakarthaporn, P. Accounting framework for accountants. Business Journal, 2002, 21(80), 43-50.
- [4] Gronross, C. Service management and marketing: A customer relationship management approach. (2nd ed). Chichester, UK: John Wiley & Sons, 2000.
- [5] Horngren, C. T., Sundem, G. L., & Elliott, J. A., Introduction to Financial Accounting. (8th ed). Prentice Hall, 2002.
- [6] Johns, N. What is this thing called service. European Journal of marketing, 1999, (September-October, 1999): 958-973.
- [7] Kotler, P. Marketing Management. (11th ed). Upper Saddle River, NJ: Prentice Hall, 2003.
- [8] Lovelock, C. H., & Wright, L. Principles of service marketing and management. Upper Saddle River, NJ: Prentice Hall, 1999.

- [9] Muchinsky, P. M. Psychology Applied to work. California: Wadsworth, 1993.
- [10] Nutayakul, A. Factors Affecting the Success of Work Performance of Bookkeeper According to the Thai Accounting Standards for Medium and Small Enterprises in Bangkok Metropolis. Suan Dusit Rajabhat Journal, 2005.
- [11] Polruangtong A., Peemane J., & Pratoom K. An Analysis of the Relationship Between Work Competency and work Effectiveness. Journal of Humanities and Social Sciences Maharakham University, 2009, 28(1), 83-84.
- [12] Seeson J., Ussahawanitchakit P., & Phonnikornkij N. The Relationship between Professional Values and Audit Quality of Tax Auditors in Thailand. Journal of Humanities and Social Sciences Maharakham University, 2007, 26(3), 22-23.
- [13] **Smithikrai C. Personality Traits Predicting Counterproductive Work Behavior.** Songklanakarin Journal of Social Sciences and Humanities. 2008, 14(4), 513-530.
- [14] Soda A., Sirisom J., & Pholnikornkit N. Opinions on the Efficiency of Internal Auditing and Performances of Thai Listed Companies. Journal of Humanities and Social Sciences Maharakham University, 2008, 27(3), 35-42.
- [15] Wangcharoendate S. The Impact of Learning Effectiveness on the Job Efficiency of SMEs Accountants in The Northeast of Thailand. Journal of Humanities and Social Sciences Maharakham University, 2006, 25(2), 45-58.

Prediction Model for Indonesia Joint Venture General Insurance Company Performance Using Discriminant Analysis

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ABSTRACT

Insurance industry plays a significant role in Indonesia economy. The development of insurance industry in Indonesia, both of general insurance and life insurance, has increased very rapidly. The development of general insurance industry itself is divided into two major players which are local private companies and Joint Venture Companies. The competition among Joint Venture Companies are very tight.

This research aims to distinguish the performance of Joint Venture Companies by using Discriminant Analysis. There are six ratios :RBC, Technical Reserve to Investment Ratio, Debt Ratio, Return on Equity, Loss Ratio, and Expense Ratio that can be used to distinguish the performance of joint venture general insurance companies.

The Discriminant Function as the performance prediction model is

$Z \text{ scores} = -1,809 + 1,125 \text{ RBC} + 1,425 \text{ TechInvest} + 2,168 \text{ Debt} + 4,082 \text{ ROE} - 8,684 \text{ Loss} + 2,580 \text{ Exp}$

INTRODUCTION

Insurance industry plays a significant role in Indonesia. The development of insurance industry in Indonesia, both of general insurance and life insurance, is indicated by an increasing number of insurance companies which resulted in a tight competition business.

Furthermore, insurance business in Indonesia, particularly the general insurance industry, is divided into two : local general insurance companies and joint venture general insurance company. Local private insurance companies are dominating the insurance market more than joint ventures (JV) insurance companies based on gross premium.

The market for joint venture general insurance companies is smaller than that of local general insurance companies, so that the business competition among JV companies is very strong. The competition forces the JVs to perform at their best.

This research is intended to identify several financial ratios that affect the company's performance in joint venture general insurance companies. Therefore, the problems that will be investigated are:

1. Is there any significance difference between good performing JV (Joint Venture) general insurance

companies and less performing JV general insurance companies?

2. What are the financial ratios that can be used distinguish between good performing JV (Joint Venture) general insurance companies and less performing JV general insurance companies ??

3. What is the discriminant model that could predict JV general insurance companies performance?

RESEARCH METHODOLOGY

Sample and Data Collection

Data necessary to complete this research was obtained from AAUI (Indonesia General Insurance Association), published and audited financial report of joint venture general insurance companies.

Sample used for this research are 14 Joint Venture General Insurance Companies in Indonesia in the time period of 2005-2009 which are PT Asuransi Allianz Utama Indonesia, PT Asuransi MSIG Indonesia, PT Asuransi Permata Nipponkoa Indonesia, PT QBE Pool Indonesia, PT Asuransi Samsung Tugu, PT Sampo Japan Insurance Indonesia, PT Asuransi Tokio Marine Indonesia, PT Ace Ina Insurance, PT Pacific International Indonesia, PT China Insurance Indonesia, PT Zurich Insurance Indonesia, PT Asuransi Hanjin Korindo, and PT Asuransi AIOI Indonesia. They are divided into two groups which are Top Seven Companies and Last Seven Companies which were based on its GWP (Gross Written Premium).

Variables

In this research there are 13 selected financial ratios as the variables in this research.

They are ::

1. Profitability Ratios :

Return on Assets
Return on Equity
Net Profit Margin
Investment Income Ratio
Claim Expense / Net Premium

2. Solvency Ratios :

Risk Based Capital
Liquidity Ratio
Debt Ratio Technical
Technical Reverse to Investment Ratio

3. Management Efficiency Ratios :

Average Collection Period
Loss Ratio
Expense Ratio
Combined Ratio

There are 7 out of 13 ratios above that specifically used for insurance company such as Risk-based capital, Claim expense/net premium, Liquidity ratio, Technical reserve to Investment Ratio, Loss Ratio, Expense ratio, and Combined Ratio.

Discriminant Analysis

The Discriminant Analysis will be used to compare the two sample groups of companies. Discrimination Function is achieved by calculating the variate's weights for each independent variable to maximize the differences between the groups (i.e, the between-group variance relative to the within-group variance). The variate for a discriminant analysis, also known as the discriminant function which is derived from an equation much like that seen in multiple regressions. It takes the following form:

$$Z_{jk} = a + W_1 X_{(1k)} + W_2 X_{(2k)} + \dots + W_n X_{(nk)}$$

Where,

Z_{jk} = Discriminant Z score of discriminant function j for object k

a = Intercept

W_i = discriminant weight for independent variable i

$X_{(ik)}$ = independent variable i for object k

Further, discriminant analysis is the appropriate statistical technique for testing the hypothesis that the group means of a set of independent variables for two or more groups are equal. By averaging the discriminant scores for all the individuals within a particular group, we arrive at the group mean. This group mean is referred to as a centroid. When the analysis involves two groups, there are two centroids; with three groups there are three centroids; and so forth. The centroids indicate the most typical location of any members from a particular group, and a comparison of the group centroids shows how far apart the groups are in term of that discriminant function

The objective in using discriminant analysis in this research is to determine whether the top seven companies are different with the least seven companies, and what financial ratios are important to distinguish between two group of companies, and what discriminant model that can be used to forecast the performance of JV general insurance companies

Hypothesis

H0: There is no significance difference between the performances of Top Seven Joint Venture General Insurance Companies to the performance of Least Seven

Joint Venture General Insurance Companies based on its financial ratios.

H1: There is a significance difference the performances of Top Seven Joint Venture General Insurance Companies to the performance of Least Seven Joint Venture General Insurance Companies based on its financial ratios.

DATA ANALYSIS

Independent Variables Suitability Test Analysis

All variables have to be tested using Multi-Collinearity Test in order to see the correlation between each independent variables that are being analyzed. The independent variable that has a high correlation between one another would later be eliminated to avoid bias in this research.

The multicollinearity test result shows the correlation between one ratio to another, and ratio that has Multi-Collinearity value above 0.5 will be classified as the ratios that have a high correlation. Therefore, in order to ensure that only those variables which contributed significantly to the discrimination were included in the final function, ROA and Net Profit Margin have to be eliminated.

Interpretation of Model Accuracy and Significance Difference Test

Wilk's Lambda Model is used to see whether the independent variables tested are appropriate enough to distinguish the variable y, where the variable y in this research refers to the performance of joint venture insurance company. Based on the test result, the p value or significance level is 0 percent meaning that the independent variables are sufficient to distinguish the variable y. Significance level with value of zero is also able to answer the hypothesis made earlier. Based on the Wilk's Lambdatest result, H0 is rejected and accept H1 due to the value of significance level that is < 95%. There is a significance difference in the performance of Top Seven Venture General Insurance Companies to the performance of Last Seven Joint Venture General Insurance Companies based on its financial ratios

The Most Influential Ratios Prediction Analysis and Result

After all predictor variables are suitable to distinguish between populations 1 and 2, then the stepwise discriminant analysis has to be performed. This procedure will show which variable are important to distinguish two sample data.

From the stepwise result there are only six variables that are significantly distinguishing two sample group of companies. They are RBC, Loss Ratio, Expense Ratio, Debt Ratio, Technical Reserve to Investment Ratio and ROE.

Further, the significance level from six selected variables can be shown by each significance level that resulted to be below 5% which reflect a high degree of significance from each variable. Based on six variables that were selected to be significantly distinguish population 1 and 2, then the analysis can be deepened to know which ratio that give the highest significance level to differentiate between good performing joint venture general insurance companies and those that are not performing well.

The result shows that ROE placed as the most significant ratio that differentiate between joint venture general insurance companies with good performance and those that are not performing well, and it is shown by it shown in its statistic value from stepwise test that is 76.299, then it is followed by Technical Reserve to Investment Ratio with the value of 66.031. Further, Debt ratio placed at the third position with the value of 54.565 then followed by expense ratio and loss ratio with value of 31.874 and 24.214. RBC placed as the last ratio with the value of 14.621.

In addition, to know the contribution value of those six variables to the variable y, or in other word to measure the closeness between those variables to the population we could see it from the Summary of Canonical Discriminant Function.

Moreover, Summary of Canonical Discriminant Function is also used to support the result from stepwise test, which will be shown in the table. The table shows the value of canonical correlation is 0.976 or 97.6% which means those six variables give 97.6% contribution to the variable y. This result is supporting the earlier stepwise test result that those six variables are highly influencing the performance of joint venture general insurance company and considered as the most influential financial ratios that distinguish between good performing JV companies and less performing JV companies.

Discriminant Function Analysis and Interpretation

One of the main objective in this research is to make a Discriminant function that later could be used to classify whether such an insurance company is performing well or not. In other way it can be concluded that this is final stage of Discriminant Analysis that is to establish a discriminant function for the use of joint venture general insurance company.

Table Canonical Discriminant Function Coefficients will be used to formulate a Discriminant function.

Canonical Discriminant Function Coefficient Result

Table shows a Discriminant Function that is gathered from all of steps in Discriminant Analysis that uses as the method in this research. Then based on the table above it could be analyzed that variable which has a higher value of coefficient showing a positive relationship to the performance of joint venture general insurance company

while variable that has lower or minus value of coefficient shows a negative relationship to the performance of joint venture company. Then the financial ratio that has the highest positive value to the performance of joint venture general insurance company is ROE with the value of 4.082 while financial ratio that has the highest negative value to the performance of joint venture general insurance company is Loss ratio with the value of -8.684.

Finally the established Discriminant Function in this research will be shown below:

$$\mathbf{Z\ scores = -1,809 + 1,125\ RBC + 1,425\ TechInvest + 2,168\ Debt + 4,082\ ROE - 8,684\ Loss + 2,580\ Exp}$$

Discriminant Function Z scores is the model to predict the performance. The cutoff value is shown through Functions at group centroid table.

The cut off value is 0, meaning companies with the z score above 0 are classified to sampel population 1 (good performance) and companies with z score below 0 are classified to sampel population 0 (not performing).

CONCLUSION

It can be concluded that Ho is rejected and H1 is accepted which means that two sampel populations are significantly difference. There are six variabels that can be used to distinguish the performance. They are ROE, Technical Reserve to Investment, Debt Ratio, Expense Ratio, and Loss ratio.

The Discriminant Function which can be used as a performance prediction model is

$$\mathbf{Z\ scores = -1,809 + 1,125\ RBC + 1,425\ TechInvest + 2,168\ Debt + 4,082\ ROE - 8,684\ Loss + 2,580\ Exp}$$

Based on the accuracy test for this discriminant function in the prvious part, the resulted function can be applied to predict the performance of a joint venture general insurance company.

The resulted discriminant function based on the data from 2005 – 2009. It would be ideal to expand the data coverage to include not only the favorable business years but the unfavorable business years as well. This will be subject to further research

REFERENCES AND RESULT TABLES ARE AVAILABLE UPON REQUEST TO THE AUTHOR

Demographics, Quality of Life and Luxury Purchase Inclinations

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ABSTRACT

This study investigates the influence of demographic characteristics on the quality of lifestyles (QoL) of consumers, which in turn influence their interest in purchasing designer and luxury products or services. Results of a questionnaire survey involving 495 respondents have found that the indicator variables contributing to the overall measurement of the manifest or composite variables are valid measures of the underlying constructs of QoL and luxury purchase inclinations (LPI). There was a strong support for the positive main effects of the demographic (DEM) characteristics on the QoL and LPI.

INTRODUCTION

Culture is believed to be one of the most influential factors affecting consumer behaviors. For example, it affects the specific products people buy as well as the structure of consumption, individual decision-making, and communication in a society [1]. On the other hand, consumer behaviour is the metamorphosis of global and local cultural influences [2, pp.116]. This research is motivated by the needs for greater insight into how and which consumer attitudes and behaviors are similar and different across countries. In this research, we focus on similarities and differences of two dispositional constructs linked to globalization, i.e., quality of lifestyles (QoL) and luxury purchase inclinations (LPI), as well as on the potential antecedents and outcomes of these constructs. We believe that research on these constructs will provide a greater understanding of when and where the dispositions of QoL and LPI are likely to favor consumer receptivity to global and foreign brands/products and identify where and when demographic characteristics (DEM) are associated with the same. The first objective of this research focuses on the assessment of the structure and reliability of these constructs and tests the hypotheses regarding their relationships. The second objective is to test the hypotheses regarding the predictive roles of seven demographic variables (gender, age, educational attainments, income, nationality, and religion) that are commonly used for segmenting international market.

THEORETICAL BACKGROUND AND HYPOTHESES

Segmenting International Markets

Indeed, understanding the demographics of market, both now and in the future, is essential for marketers or retailers to understand the types of products people will need, where they are likely to buy them and the attributes most likely to delight them. Market analysis begins with understanding how people's needs relate to variables such as age and other demographic variables. For example, in estimating

consumers' ability to purchase a product/service requires an understanding of economic resources — who has money now and who is likely to have it in the future from a global perspective. Willingness to buy is affected by many variables including the importance of brand [3]. As a result, demographic variables have received broad acceptance and lend themselves easily to quantification and facilitate customer classification into segments [4][5]. However, there is disagreement in the literature about their appropriateness and they often need to be supplemented with additional data [5]. Despite this disagreement, demographic variables continue to be one of the most popular and well-accepted bases for segmenting markets and customers [6].

Quality of Lifestyles

There are varieties of terms being associated with QoL and as such a more general operational definition of QoL is still a subject of vigorous debate [7]. Since the conceptualization of QoL is dynamic, many authors of different fields of studies have increasingly refined the term for specific purposes (for examples, in health-related QoL, life satisfaction, happiness, well-being, and value of life). Thus, for the purpose of this study, a more scientific understanding of this definition comes from the study of different cultures by Geert Hofstede. On the one hand, QoL can be defined in association with psychological well-being and its correlation with economic well-being and its materialistic stereotypes [8][9][10]. On the other hand, QoL can be defined in association with the degree to which people succeed in overcoming and reducing their material needs and focus more to interpersonal relationships (or "relationships quality of lifestyles"). Thus, QoL concept can be defined as either "materialistic" or "relationships" or both orientations. In materialistic QoL or objective quality of lifestyles culture (QoL_{MAT}), people value assertiveness, the acquisition of money and material goods, and thus competition prevails. Some researchers [11] claimed that those who highly focused on materialistic aims tend to have a lower QoL. Indeed, materialists are responsive to external factors (appearances, prestige), are conformist, socially anxious but are also self-centered (less generous and place less priority on interpersonal relationships). They are always dissatisfied with what they have because they buy things in order to impress others more than to satisfy their own wants [12, pp.415]. In contrast, relationship quality of lifestyles or subjective quality of life (QoL_{SHIP}) is the degree to which people value relationships and show sensitivity and concern for the welfare of others as valued by a highly collectivistic culture.

Luxury Purchase Inclinations

Indeed, growing wealth has liberated consumers' spending power and has a profound influence on how consumers feel about luxury brands [13]. *So, what constitutes a luxury brand?* Defining a luxury brand is a confusing issue, judging by discussions in both academic and popular literatures [14][15]and[16][17] and[18][19][20][21]. For example, what is luxury product to the third world countries may just be ordinary to the developed or industrialized countries. Similarly, while one group perceives some brands as "luxury brands", another group considers them as "major brands" [22, pp.123]. Another researcher [14] argued that the term luxury varies according to the combinations of motivations that are based on values. According to some, consuming luxury brands is a form of conspicuous consumption, i.e. the main motivations for purchasing luxury brands are the need for sociability and self-expression [15][16]. Interestingly, even consumers of the so-called third world seem to possess strong desire for luxury products before having adequate nutrition [23]. We can argue that the latter is more influenced by self indulgence irrespective of social and economic pressure [24]. However, purchasing luxury brands can also increase quality of lifestyles by greater feeling of communal support and sense of security [25], setting correct self-concept and correct ideal standard of living [26] and avoiding materialistic ideas such as envy, non-generosity, and possessiveness [8]. Thus, based on the above background we hypothesize the following:

- H₁: The relationship between QoL_{MAT} and LPI is significant
- H₂: The relationship between QoL_{RSHIP} and LPI is not significant

Demographic Antecedents of QoL_{MAT}, QoL_{RSHIP} and LPI

Demographic characteristics such as income, business ownership, age, gender, and education are used to predict the ownership of a prestigious automobile in the USA [27]. They also found that income and occupation affect the status consumption in the US market. In another example, it is estimated that global luxury sales figure of \$27 billion in 2015 is expected to derive from the Chinese consumers. One of the findings stood out from their research is shifting attitudes due to rapidly rising incomes [28]. No doubt that higher levels of income are naturally associated with the ability to LPI, most researchers have found that no relationship exists between materialism and affluence [29][30]. Although, educated consumers are more likely to purchase luxury products, most researches [30] have yet to find any relationship between educational attainment and materialism. Indeed older people tend to be less materialistic than their younger counterparts despite their higher earning power [2] yet previous researchers find negative relationships between materialism and age [30][8].

Thus, we hypothesize the demographic relationships to QoL_{MAT} and LPI:

- H_{3a}: QoL_{MAT} is negatively related to (i) age, (ii) educational attainments, (iii) income, (iv) nationality, and (v) religion
- H_{3b}: LPI is negatively related to (i) age, (ii) educational attainments, (iii) income, (iv) nationality, and (v) religion
- H_{4a}: QoL_{MAT} is positively related to (i) gender, and (ii) marital status
- H_{4b}: LPI is positively related to (i) gender, and (ii) marital status

METHODOLOGY

Questionnaire design

The materialistic quality of lifestyles (13-related items) measurements were adopted from previous studies [31][30]. We developed the relationship quality of lifestyle (seven related items) measurements and luxury purchase inclination (four related items) measurements. These items were developed based on one of the eight major characteristics of consumer decision-making, namely brand conscious [3]. All the items were measured with a forced four-point Likert-scale, anchored on (1) disagree and (4) agree. The rating scales were used to minimize social desirability bias arising from respondents' desires to please the interviewer or appear helpful [32].

The Sample

Survey data for this study (N = 495 usable of 600 distributed) were collected conveniently from respondents in Doha, Qatar. Overall, 58.6% of the respondents were male, and 49.7% of the sample was expatriates (with working permit). The majority of respondents were Muslims (69.3%) and married (56.2%). Approximately two-thirds of the sample was between 25 and 44 years of age. Regarding educational attainment, 64.2% obtained at least a diploma or a bachelor's degree, and, 20.6% and 15.2% reported above college/bachelor's degree and high school (and below) levels, respectively.

ANALYSIS AND RESULTS

Preliminary results

We conducted exploratory factor analysis (EFA) on the construct measures using principal component extraction and varimax rotation. EFA results indicated three-factor of QoL and we labeled the factors as QoL_{MAT} (five items), QoL_{RSHIPNE} (two items), and QoL_{RSHIPSC} (two items) respectively, while one factor of LPI. To further refine and validate the measurements we used CFA, which is also used to test their convergent, and discriminant validities [33]. Next, table 2 shows that each of the loadings is significant and is greater than 0.50 and this suggests convergent validity. Finally, we compared the average variance extracted of the individual constructs (AVE) with the squared correlation between constructs (r^2) [34]. Table 1 showed that the AVEs of the individual constructs are higher than the r^2 between the constructs, thus confirming discriminant validity.

TABLE 1: Mean, standard deviation, discriminant validity

	Mean	Std dev.	1	2	3	4
QoL:						
1. MNE	2.68	.87	.53			
2. MSC	2.71	.84	.27	.54		
3. MAT	2.54	.72	-.03	.05	.37	
4. LPI	2.37	.87	-.08	.06	.55	.55

Notes: Diagonal represents the average variance extracted (AVE), while other matrices represent shared variances; QoL = Quality of lifestyles; MNE = Neighbors; MSC = Social and Community; LPI = Luxury purchase inclinations; significant level at $p < 0.01$

TABLE 2: Properties measurements

	λ	R^2	α	CR
QoL _{RSHIPNE}			.69	.69
1. Talk to neighbors	.70	.49		
2. Visit neighbors	.75	.56		
QoL _{RSHIPSC}			.70	.70
3. Community service	.74	.54		
4. Social service	.73	.54		
QoL _{MAT}			.75	.75
1. Material things attract me	.56	.32		
2. Material things make me happy	.71	.50		
3. Would like to be rich enough	.58	.34		
4. Could buy more things	.62	.39		
5. Own more expensive things	.57	.32		
LPI			.78	.79
1. Will spend ^a				
2. Willing to spend	.70	.49		
3. Shopping at boutiques	.69	.48		
4. Definitely purchase	.83	.69		

Notes: λ = Factor loadings; R^2 = Squared Multiple correlation; α = Cronbach alpha; CR = Construct reliability; ^a = deleted with $\lambda < 0.50$; All significant level at $p < 0.01$

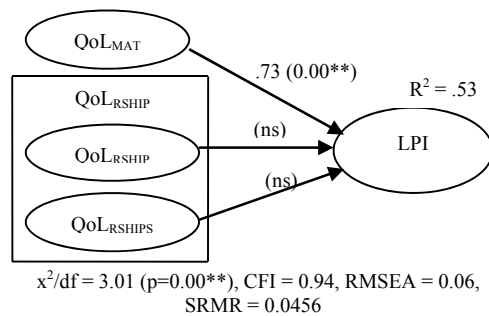
Hypotheses Testing

We used Spearman Rho correlation and Structural Equation Modeling (SEM) to test our hypotheses. We used SPSS 13 and AMOS 4 in the analysis.

H_1 and H_2 : QoL and LPI

Results from Figure 1 show that there is a significant relationship between QoL_{MAT} and LPI. As expected, there are insignificant relationships between QoL_{RSHIP} and LPI. Therefore, both H_1 and H_2 are accepted.

FIGURE 1: SEM results



H_3 and H_4 : Demographics, QoL_{MAT} and LPI

We used Spearman Rho correlation to test H_3 and H_4 . Table 3 indicates that there are negative significant relationships between age, demographic characteristics and QoL_{MAT} and LPI (except for income). Therefore, H_{3a} and H_{3b} are accepted.

TABLE 3: Spearman Rho Correlation

	QoL _{MAT}	LPI
1. Nationality	-.130**	-.280**
2. Religion	-.136**	-.107*
3. Age	-.208**	-.261**
4. Gender	ns	ns
5. Marital status	.203**	.256**
6. Education	-.122**	-.158**
7. Income	-.093*	ns

Significant levels at $p < 0.01^{**}$ and $p < 0.05^*$

Results in Table 3 show that there are insignificant relationships between QoL_{MAT} and gender and between LPI and gender. Thus, $H_{4a(i)}$ and $H_{4b(i)}$ are rejected. There are positive significant relationships between QoL_{MAT} and marital status and between LPI and marital status. Hence, $H_{4b(ii)}$ and $H_{4b(ii)}$ are accepted.

GENERAL DISCUSSION AND CONCLUSION

It is interesting to note from this research that it is of paramount important to investigate the robustness of constructs and models developed in Middle East contexts so as to broaden consumer behaviour theory across cultures. Here, we validate the overall measurement of the manifest or composite variables of the underlying constructs of QoL and luxury purchase inclinations (LPI). In order to assess the nomological validity of these constructs we further examining the demographic antecedents and behavioural outcomes of the respondents. With regards to the behavioural outcomes, as expected, QoL_{MAT} had a strong positive influence on LPI ($\beta = .73$, $t_{\text{value}} = 9.37$; $p = .00$). Obviously, respondents who focused on “materialistic quality of lifestyles” is more inclined to purchase luxury products. The findings in this research show that QoL_{MAT} is negatively related to age, income and educational attainment. Thus, confirming the previous studies [8][30][29a]. Age was the strongest predictor of QoL_{MAT}, followed by marital status and religion. Income was the weakest predictor. Interestingly, nationality was the best predictor for LPI, followed by age and marital status. The weakest predictor was religion. In conclusion, this study predicted the importance of demographic characteristics on quality of life, and interest in purchasing or consuming designer or luxury products or services. In defining a target market and designing a marketing strategy (in particular, communication appeals) international marketers need to utilize stronger brand imagery that reinforces brand values and quality perceptions.

REFERENCES^a

^a Will be provided upon request.

A Comparative Study of Decision Making on Investment and Environmental Impacts in Thailand and Socialist Republic of Vietnam

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ABSTRACT

The study is documentary research which its objective is to compare decision making on investment and environmental impacts in Thailand and Socialist Republic of Vietnam. The research methodology is to study academic articles, research and electronic data.

The study's results were found that Thailand's advantages were the availability of utilities, labor quality and beneficial policies on investment promotion. However, there were problems of improving Thai tax system and unclear management for the environmental impacts. The Socialist Republic of Vietnam's advantage was low-waged workers but its problems were the economic infrastructure, the recruitment of executives and skilled personnel, its complicated legal system, and no serious concern for the environmental impacts.

INTRODUCTION

International business competitions, particularly the promotion of foreign investment in Asia, are becoming fiercer. The key factors in the foreign investment, for example, are the market's demand, the market's potential growth, the population's stability, the size of the market, the opportunity for business expansion, the nearness to other markets, and stably political atmosphere. Thailand and the Socialist Republic of Vietnam have the most similarities among Southeast Asian countries- grown crops and plants, domestic animals, the nation's main occupations, ways of live, and the nation's official religion.

Because of these similarities, Thailand and the Socialist Republic of Vietnam are very interesting in foreign investors' eyes. However, these two countries have interesting differences- their regimes, values and cultures, laws and regulations of investment and environmental impacts for the foreign investors. Conducted for obvious and useful data, the study compared the decision making on investment and environmental impacts in Thailand and the Socialist Republic of Vietnam for the foreign investment. Therefore, the study will be used for the preparation and development of Thailand in order to become the dream country for foreign investment.

THE RESEARCH'S OBJECTIVES

1. To study and compare the decision making on investment in Thailand and the Socialist Republic of Vietnam for the foreign investment.

2. To study and compare the decision making on environmental impacts in Thailand and the Socialist Republic of Vietnam for the foreign investment.

EXPECTED BENEFITS

1. To realize benefits from the investment in Thailand and the Socialist Republic of Vietnam for the foreign investment.
2. To realize the environmental impacts caused by decision making in investment in Thailand and the Socialist Republic of Vietnam.

CONCEPTS AND RELEVANT RESEARCH

1. Concepts

1.1 Concepts of Foreign Direct Investment (FDI)

The foreign direct investment is the investment that foreign investors can manage and acquire the business which can be done by (Apirat Tangkrachang, 2006)

- 1) The acquisition of the existed business and the foreign investors become the major shareholders.
- 2) The establishment of its branch office in a country the foreign investors invest.
- 3) The establishment of a new company in a country the foreign investors invest.

For the business growth, FDI affects any country's economic, political, and social objectives. Moreover, the companies may have various FDI types and, then, they have various business operations.

Foreign Direct Investment Motivation

The FDI motivation is to achieve sales expansion which FDI's 4 main factors are transportation, trade restrictions, country-of-origin effects, and changes in comparative costs.

1.2 Concept of the Environment

ISO 14000 is a series of international standards on environmental management, covering product design, marketing, production, and delivery and services. It emphasizes any organization to improve and save the environment continuously. The certified standard is ISO 14001 for the Environmental Management System (EMS).

2 Relevant Research

2.1 On Investment

Boonwut Saratchanut (2010) studied tax incentives to attract the foreign investors' decision making to invest in the Socialist Republic of Vietnam by comparing tax benefits of Thailand and the Socialist Republic of Vietnam, opinions from the private and public sectors to realize attractive tax incentives, and related investment problems. It was found that the Socialist

Republic of Vietnam had tax incentives for the foreign investors more attractive than Thailand. Their different tax incentives were the transfer of profits back to the foreign investors' countries, tariff exemption, and rates of corporate income tax and VAT lower than Thailand's.

Nusawas Saowaluck (2003) studied a comparison of tax benefits of investment in Thailand, People's Republic of China, and the Socialist Republic of Vietnam. Its objective is to study and compare tax benefits. It was found that the Socialist Republic of Vietnam was the most attractive country for the investment because the corporate income tax was paid at the lowest rate. Moreover, if the investors invested in business promoted by the Vietnamese government or set factories in industrial or export zones provided, they would pay tax at the special preferential rate. Compared with Thailand, receiving the corporate income tax at the special rate meant the investors had to comply with the Revenue Department's conditions. Also, receiving the tax exemption and deduction, the business had to apply for the investment promotion and be approved first.

Tangjuang Pasin. (2010) studied the preparation of staff to the labor sector: a comparative study of Thailand and the Socialist Republic of Vietnam 1980-2025. It was found that Thailand's population was 20 million people less than the Socialist Republic of Vietnam, and might be reach 30 million people in 2025. Therefore, the Socialist Republic of Vietnam had more labor force and would support the labor intensity for a long time, while Thailand had the elderly more than the Socialist Republic of Vietnam. Overall, Thailand had more development of infrastructure and educational institutes. Also, Thai labor force had higher educational level and longer experiences in working in factories, while the Socialist Republic of Vietnam had an advantage of the population's traits- endurance, determination, and dedication. Vietnamese people exerted themselves to be in competition with the world although they were less prepared.

2.2 On the Environment

Lorsomboon Pongwipa. (2001) run a project on the environmental performance index in order to increase the competitive advantage of Thailand's industries. It was found that industries usually emphasized indices assessing costs or criteria-related issues by law more than an index assessing the pollution protection. Moreover, the industries did not collect data systematically. The government's support for the infrastructure, research, training, and laboratory accessibility would help increase the industries' competitiveness.

Taoprayoon Sirinthep. (2004) run a primary study of the country's status and readiness for Impact of International Treaties and Measures on Greenhouse Gas Reduction and Carbon Credits Transfer on Thai Trading and Environment. It was found that Thailand had more studies and advances in coping with climate

change, and paying more attention to any operation which caused greenhouse gas emissions- alerted by the Convention on Greenhouse Gas Reduction, environment-friendly trends, and the global energy situations, particularly the energy sector which focused on changing the country's energy policy to consume more alternative energy.

TOOLS EMPLOYED IN THE RESEARCH

The tools employed in this research are data collection and literature review from academic articles, research, and electronic data relevant to decision making on investment and environmental impacts in Thailand and the Socialist Republic of Vietnam, 60 in total. They are 20 academic articles, 30 research papers, and 10 electronic data relevant to decision making.

THE DATA ANALYSIS

The researcher analyzed and synthesized data on decision making on investment and environmental impacts in Thailand and the Socialist Republic of Vietnam from data collection and literature review from academic articles, research, and electronic data. The criteria for selecting data used in the research are composed of 1) Facts, 2) Reliability and Validity, 3) Representation, and 4) Meaning.

CONCLUSIONS

It was found that Thailand had advantages of readiness of infrastructure, quality labor force, and good policies on investment promotion; but its obstacles were the tax system needed to be improved and unclear management of environmental impacts. The Socialist Republic of Vietnam's advantage was low wages, while its disadvantages were its economic infrastructure, lack of executive-level and skilled staff, a complicated and complex law system, and no concern for the environmental impacts.

RECOMMENDATIONS

From "A Comparative Study of Decision Making on Investment and Environmental Impacts in Thailand and the Socialist Republic of Vietnam", the researcher would like to propose recommendations for Thailand as follows:

1. Thailand should employ active policies on foreign direct investment- promoting the establishment of the Super Investment Agency in order to be an investment center for direct contact with the foreign investors and giving information on investment and regulations; providing facilities for the foreign investors' convenience comprehensively; and supporting various benefits to foreign companies invested in the country.
2. Thailand should formulate obvious policies on environment related business- passing more obvious laws and increasing punishments for whoever offends the law; increasing the development of clean energy to cope with threats such as climate change (the global warming); building the pollution-free future by setting standards of environmental quality and of controlling

pollution from its sources; and making plans for the management of the environmental quality and measures to control, protect and solve environmental problems as a result of pollution caused by the industries.

REFERENCES

- Boonwut, Saratchanut. (2010). Taxation criteria for motivating decision making on investment in Socialist Republic of Vietnam. Master of Accounting. Chiang Mai University. Department of Export Promotion. (2010). Vietnam. [Online]. Available <http://www.dephtai.go.th/Default.aspx>
- Doing Business. (2010). **Doing Business 2011 Making a difference for entrepreneurs.** November 4, 2010. P.199
- Lorsomboon Pongwipa. (2001). Developing Environmental Performance Indicators for Increased Competitiveness for Thai Industry. Thailand Environment Institute (TEI).
- Nusawas, Saowaluck. (2003). A comparative Study of Tax Benefits on Investment in

- Thailand, The People's Republic of China and Socialist Republic of Vietnam. Master of Accounting, Chiang Mai University.
- Taoprayoon Sirinthepp. (2004). Study of the country's status and readiness for Impact of International Treaties and Measures on Greenhouse Gas Reduction and Carbon Credits Transfer on Thai Trading and Environment. The Thailand Research Fund. Thailand.
- Tangjuang Pasin. (2010). Labour Capacity Preparation: Comparative Analysis of Thailand and Vietnam 1980-2025. Centre for Education and Labor. Faculty of Education. Chiang Mai University.
- The Office of the Board of Investment. (2010). Vietnam. [Online]. Available http://www.boi.go.th/thai/clmv/Back_up/file_index/2010_vietnam_0_0.html
- Vietnam – Thailand Business Club: VTBC. (2010). Detail Thai Vietnam. [Online]. Available <http://www.mfa.go.th/internet/BDU/DetailThaiVietnam.pdf>.

The Comparison of Thai Mutual Fund Investment and Direct Investment in Securities in Term of Risk and Return

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ABSTRACT

Mutual funds are investment vehicle with system management and have diversified investments spread in calculated proportions amongst securities of various economic sectors. In this paper we have studied from 5 year annual report (2006-2010) of 212 mutual funds divided into 74 fixed income funds where their performance compared with The Thai Bond Market Association (ThaiBMA) index and 138 equity funds where their performance compared with Stock Exchange of Thailand (SET) index. We use standard deviation to present the opportunities to get realized return. It can be somewhat different from expected return and use coefficient of variance to compare return and risk.

Keywords: Mutual fund, Investment, Securities, Risk, Return

INTRODUCTION

Mutual funds are the funds in accordance with an approved mutual fund scheme. They raise money by selling investment units of the fund to the public, money received from the sale of investment units is invested in securities or other assets or used to seek a return by any other means. A mutual fund is an investment vehicle suitable for retail investors who have a limited amount of money, lack of experience, knowledge, skill, or time. The first mutual fund in Thailand was set up on March 14, 1975.

Each mutual fund is managed by the authorized fund manager of the management company to make investment decisions according to the investment policy indicated in the mutual fund scheme. The fund manager must be approved by the Securities and Exchange Commission (SEC Thailand), possess Chartered Financial Analyst (CFA) or Certified Investment and Securities Analyst (CISA) or have been granted by an overseas authority with a license to perform duties of fund manager, and have attended and passed the Fund Manager Course arranged by the Association of Investment Management Companies (AIMC). Moreover, the mutual fund is still required to have the mutual fund supervisor who responsible for looking after the best interests of unit holders and ensuring that the fund manager manages the fund in accordance with the approved mutual fund scheme, verifying the net asset value (NAV) of the fund, being the custodian of the fund, and filing legal action

against the management company on behalf of unit holders. The fund supervisor must be a financial institution approved by SEC, it need to meet qualifications as per fit-and-proper requirements and shall not have any deterrent to perform its duties independently such as direct or indirect relationship with the management company.

Mutual funds have grown rapidly and continuously in term of number of the funds and asset size. It shows that investors are very interested in mutual fund investment.



Fig. 1. GDP, Mutual Fund NAV, Deposit and Life insurance comparing 1992-2010

Return of investment

Investor will reach the return of investment from dividend, interest, discount, capital gain, and other benefits with deducting all expenses. Mutual fund investors also reach all said benefits.

Risk of investment

Risk of investment means the variations of realized return and expected return. We indicate into 2 types as follows.

- Risk from macro factors

Normally, it can not avoid and expect such as economic situation, financial situation, politics and all of changes

- Risk from micro factors

It will be specific for each security. The investors can diversify to varieties of securities.

Risk of mutual funds

Even mutual funds have systematic management however, there are some risks to be concerned as follows:

- Interest rate risk

Changing of interest rate in money market will affect the market price of fixed income funds.

- Market risk

When economic goes down, the market price of securities will drop as well.

- Political risk

Growth of investment will be slow down in uncertainty of political situation.

- Company risk

Securities issued from some companies may loss due to wrong management or fraud that make loss to the investment.

- Liquidity risk

Some securities may be illiquid to redeem in cash.

METHODOLOGY

The return of mutual fund will be affected from growth, operating period, risk and expenses of the fund. From literature review, fixed income funds made higher return than direct investment in fixed income papers. Equity funds also made higher return than direct investment in equities, so our hypotheses are as follows:

H1. Fixed income funds have higher return and lower risk than direct investment in fixed income papers

H2. Equity funds have higher return and lower risk than direct investment in equity market

In this paper we study and analyze investment data from 5 year annual report of the mutual funds registered with SEC since January 1, 2006 and operate until December 31, 2010. There are 74 fixed income funds and 138 equity funds. We also study from other related data from related entity's documents which are SEC, AIMC, The Stock Exchange of Thailand (SET), The Thai Bond Market Association (THAIBMA), etc.

Variable

Independent variable

1. NAV per unit
2. THAIBMA index (Fixed income fund)
3. SET index (Equity fund)

Dependent variable

1. Mutual fund return rate
2. Fixed income return rate
3. Equity return rate
4. Mutual fund risk rate
5. Fixed income risk rate
6. Equity risk rate
7. Coefficient of variance of mutual fund
8. Coefficient of variance of fixed income

9. Coefficient of variance of equity

Data Analysis

1. Return Rate Analysis

Investors can use the rate for making decision in investment under risks comparing with return

2. Risk Analysis

2.1 Standard deviation

We use standard deviation to show that realized return align with expected return. The high standard deviation means the high distribution of expected return.

2.2 Coefficient of variance

We compare the return rate to risk unit. The high Standard deviation fund means the high risk fund.

2.3 Variance

The high standard deviation or high variance shows the high distribution of expected return. It means the high risk of investment.

3. Statistic for analysis

3.1 Average Return

3.2 Standard deviation, Coefficient of variance and Variance

This paper is useful for investment management companies and interesting people. The result can use as a guide line for setting up varieties of fund and for fund management development such as enhancing fund performance, public relation, promotion. In addition, the result will be the reference for educator and next research.

REFERENCES

- Cholticha Mangkang. (2006). Factors Affecting the Net Return of Mutual Funds in Thailand. Independent Study Master of Economics. Chiang Mai University.
- Kasikorn Research Center Co., Ltd. (2011). Mutual Funds Bracing for More Business Challenges in 2011 (Business Brief No.3064), Retrieved April 8, 2011, from <http://www.kasikornresearch.com/TH/K-Econ%20Analysis/Pages/ViewSummary.aspx?docid=26636>
- Kochaporn Tassanaborisut. (2009). The Measurement of Risk and Return of Fixed Income Mutual Fund. Master's Project, Master of Economics. (Managerial Economics). Srinakharinwirot University.

- Pavitra Phachuen. (2002). Performance Evaluation of General Fixed Income fund. Thematic paper, Master of Economics. Ramkhamhaeng University.
- Pichate Potijanyakul. (2002). A Study of Mutual Funds' Risk and Return in Thailand. Independent Study Master of Business of Administration. The University of the Thai Chamber of Commerce.
- Securities and Exchange Act B.E. 2535.
- Securities and Exchange Commission, Thailand. (2011). Fund Statistics. Retrieved April 8, 2011, from http://www.sec.or.th/infocenter/report/Content_0000000138.jsp?categoryID=CAT00000229
- Securities and Exchange Commission, Thailand. (2011). GDP, Mutual Fund NAV, Deposit and Life insurance 1992-2010. Retrieved April 18, 2011, from http://www.aimc.or.th/en/21_overview_detail.php?nid=2&subid=0&ntype=2
- Securities and Exchange Commission, Thailand. (2011). Let get to know mutual fund. Retrieved April 8, 2011, from http://www.bualuang.co.th/le/help/kw/mf_book.pdf
- Securities and Exchange Commission, Thailand. (2011). Mutual Fund. Retrieved April 1, 2011, from http://www.sec.or.th/asset/Content_000000004.jsp?categoryID=CAT0000226&lang=en
- Securities and Exchange Commission, Thailand. (2011). Risk of mutual Fund. Retrieved April 1, 2011, from http://www.sec.or.th/webedu/content.html?menu_id=451
- The Stock Exchange of Thailand. (2011). Total Return Index. Retrieved April 8, 2011, from <http://www.set.or.th/en/market/tri.html>
- The Thai Bond Market Association. (2011). Bond Index. Retrieved April 8, 2011, from http://www.thaibma.or.th/bond_info.html