

The 1st International Business Management Research Conference

18th November, 2011 at *Le MERIDIEN*, Chiang Mai, THAILAND

FACULTY OF BUSINESS ADMINISTRATION, CHIANG MAI UNIVERSITY

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FACULTY OF BUSINESS ADMINISTRATION, CHIANG MAI UNIVERSITY

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Dean's Message

The Faculty of Business Administration, Chiang Mai University expected that the 1st International Business Management Research Conference could enrich knowledge and understanding of elements which enhance success in developing research, exchange experiences about success, problems and hindrances of business management from various institutions as well as build up network for human resource development and provide a forum to publish academic papers.

Together, there are about 80 participants consisting of academic experts, businessmen, graduate students and representatives from government agencies and private organizations. The conference encompasses papers including three themes which are: 1) Logistics, Information Technology and Management, 2) Financial and Accounting, and 3) Hospitality and Marketing as well as doctoral presentation. At the end of the conference, we will award the best paper award, too. Moreover, today we are very pleased that Professor Dr. Paul Patterson, the academic expert in business management of Business School, University of New South Wales, Australia has honored us to present a special lecture on Mastering Service and Sales Simultaneously - Achieving Ambidexterity in a Retail Service Context.

In addition, the conference might not be possible without cooperation and support from the organizing committees, many organizations and institutions. Consequently, we would like to take this opportunity to express our sincere appreciation to CENGAGE Learning Company and our staff for their strong devotion and contribution.



(Associate Professor Boonsawart Prugsiganont)
Dean of Faculty of Business Administration
Chiang Mai University, THAILAND

The 1st International Business Management Research Conference (IBMRC)

The vision of the faculty of business administration at Chiang Mai University is to focus on enhancing the academic knowledge of business management. The faculty encourages the creation and development of ongoing research to academic scholars and students. This would lead to the expansion of new knowledge in managing a business which can provide a benefit to the profession itself, the local community, and industries nationwide. The business administration conference is one of the methods in disseminating knowledge by the Board of Administration.

Chiang Mai University has heeded to the importance of endorsing the development and propagation of knowledge. The effort is demonstrated in producing a channel to have participants from the private business sector, government institutions, and academic research centers to come together and exchange their experiences and ideas as well as collaborate on upholding the profession of business management. It is the aim of the institution to strengthen the academic administration line in providing leadership and knowledge in business management. Moreover, the purpose of creating this forum is to disseminate knowledge in the business management. This is to stimulate a continuation of ideas being exchanged between academics, researchers, and students who are extending their studies on the master's and doctorate in business management and other related fields.

The Faculty of Business Administration at Chiang Mai University is proud to hold the first annual international conference in "Business Management Research" which will be held on November 18, 2011. The main objectives are 1) to promote the academic center's view of business management 2) to promote the development of research which will lead to a result in new knowledge and on the application of knowledge management as a benefit for business management in the community and the nation level 3) to create opportunity to exchange knowledge, vision and experience in developing research in business management 4) to Imparte benefit of research and development of business continuity management and 5) to providing a forum to publish academic works in business management.

(Dr.Narumon Kimpakorn)

Vice Dean of Faculty of Business Administration
Chiang Mai University, THAILAND
Chairman of IBMRC Conference

The area of manuscript

- 1) Marketing management research
- 2) Financial management research
- 3) Organizational management research
- 4) Human resource management research
- 5) Accounting research
- 6) Consumer behavior management research
- 7) Entrepreneurship development research
- 8) Information technology and management research
- 9) Organizational communication and marketing communication research
- 10) Corporate social responsibility research
- 11) Other related research topics

Type of Manuscript

Individuals who are interested in taking part in the conference can submit a completed article which will be reviewed and selected by 2/3 experts to decide if the work meets with the conference requirements. Upon acceptance authors of the article will be asked to attend the forum to give a presentation. The presentation can be done in two ways.

Conceptual paper presentation for students who are furthering their studies Presentation of concept papers can only be delivered as an abstract. The length of the article must not exceed 10 pages (A4 size) including reference page (If the article exceeds five pages it will not be considered). The awarding of the "Best Concept Paper Award" is in accord with the criteria and discretion of the organizing committee. Papers will only be considered in the proposed meeting room.

In addition, the owner of manuscript has a right to request on prohibiting their work to be published in the Journal of Research and Conference Management (ISSN1906-7135), published by the Faculty of Business Administration, Chiang Mai University. However, the request will be fulfilled only if the editor board accept the manuscript

The 1st International Business Management Research Conference
Venue: Le Meridien Hotel, Chiang Mai, Thailand
Friday 18th, November 2011

Organized by Faculty of Business Administration, Chiang Mai University

Schedule

| | |
|------------------|---|
| 8.30-9.00 am. | Registration (Convention Hall 3 at 4 th Floor) |
| 9.00-9.15 am. | Opening Ceremony by Assistant Professor Dr. Nat Vorayoj, Vice President for Research and Community Service Affairs of Chiang Mai University (Convention Hall 3 at 4 th Floor) |
| 9.15-9.30 am. | Special seminar on topic "Mastering Service and Sales Simultaneously - Achieving Ambidexterity in a Retail Service Context" by Professor Dr. Paul Patterson, University of New South Wales, Australia" (Convention Hall 3 at 4 th Floor) |
| 10.30- 10.45 am. | Coffee-Break (Convention Hall 3 at 4 th Floor) |
| 10.45-12.30 am. | Seminar presentation - Session 1 (divided into 3-4 rooms) (presentation about 15 min. , Q&A about 5 min./paper) -Room 1. Voyage (3 rd Floor) - Room 2 Journey (3 rd Floor) -Room 3. Expedition (3 rd Floor) |
| 12.30 -13.30 pm. | Lunch (Convention Hall 2 at 4 th Floor) |
| 13.30 -14.30 pm. | Seminar presentation - Session 2 (3 rd Floor) |
| 14.30-14.45 pm. | Coffee-Break (3 rd Floor) |
| 14.45-16.00 pm. | Seminar presentation - Session 3 (3 rd Floor) |
| 16.00-16.30 pm. | Announcement for "Best Paper Award" (Convention Hall 3 at 4 th Floor) |

Oral Presentation Schedule

| Time | Room 1. Voyage (3 rd Floor) Theme: International BMRC (IBMRC) | Room 2 Journey (3 rd Floor) Theme: Accounting and Finance (BMRC) | Room 3. Expedition (3 rd Floor) Theme: Tourism and Marketing (BMRC) |
|-------------------|--|---|---|
| 10.30 - 12.30 am. | A1. Can Small-Medium Manufacturers Implement Initial Training? (IBMRC) | B1. Knowledge and Understanding of Northern Region Accountants in Taxable Profit Calculation Principle of Small and Medium Enterprises (Acc.) | C1. The Potential of Tourism Survey and Thai Tourist Behavior in Samut Songkhram Province : A Case Study of Don Hoi Lot (Tourism) |
| | A2. Trend of Thai Undergraduate Students' Netiquette in the Age of Information Technology (IBMRC) | B2 Factors Affecting SME Owner's Perception of Audit Quality (Acc.) | C2. Thai Tourist's Behavior towards Tourism in the Upper Northern Thai Region (Tourism) |
| | A3. The modeling of the influence of collaborative leadership and corporate culture towards team performance: case study on PT JASA MARGA (IBMRC) | B3. An Empirical Study on Personal Financial Planning of Working People in the Upper Northern of Thailand (Fin.) | C3. Lifestyles and Purchasing Behavior of Working Women at Convenience Stores in Bangkok Metropolitan Areas (Mk.) |
| | A4. The Influence of Learning System and Learning Environment Toward Psychological Capital and GPA of Management ITB Students (IBMRC) | B4. Factors Affecting Quality of Segment Reporting in Thailand (Acc.) | C4. Problems in the Adoption Product Label Control of Used Cars In Mueang District Chiang Mai Province (Mk.) |
| 12.30-13.30 pm. | Lunch (Convention Hall 2 at 4 th Floor) | | |

| Time | Room 1. Voyage (3 rd Floor) Theme: Conceptual Paper (BMRC) | Room 2 Journey (3 rd Floor) Theme: Finance (BMRC) | Room 3. Expedition (3 rd Floor) Theme: Marketing & Management (BMRC) |
|-----------------|--|--|---|
| 13.30-14.30 pm. | A5. Service Brand Experience: The Perception towards Service Personnel and Self-Service Technologies (Conceptual Paper) (IBMRC) | B5. Information Risk and Returns in High-tech Firms: An Empirical Study in French Firms (Fin.) | C5. Modern Postgraduate Marketing Programs: Employers' perspective in Chiang Mai (Mk.) |
| | A6. Antecedents and outcomes of emotional labor : The moderating role of coworkers support and customer verbal aggression (Conceptual Paper) (IBMRC) | B6. Effects of Macroeconomic Factors Towards Corporate Liquidity of Firms in Property and Construction Sectors in the Stock Exchange of Thailand During 2000-2009 (Fin.) | C6. Opinions of Students at Souphanouvong University, Lao People's Democratic Republic Towards Working with Small and Medium Enterprises (Mng.) |
| | A7. Service Employees with Meditation Practice and Customer Perception Towards Service Quality (Conceptual Paper) | B7. Corporate Social Responsibility Disclosure and Cost of Equity Capital: A Case of Security Exchange of Thailand (Conceptual Paper-Fin.) | C7. The Effect of Entrepreneurship on Employee's Learning Behavior in Medium and Large Size Manufacturing Corporation in Thailand: An Application of Multilevel Structure Equation Model (Mng.) |
| 14.30-14.45 pm. | -----Coffee Break ----- | | |

| Time | Room 1. Voyage (3 rd Floor) Theme: Doctoral Presentation & Logistics (BMRC) | Room 2 Journey (3 rd Floor) Theme: Finance & Management (BMRC) | Room 3. Expedition (3 rd Floor) Theme: IT & Management (BMRC) |
|-----------------|--|---|--|
| 14.45-16.00 pm. | A8. Customer Loyalty: Concepts and Proposed Conceptual Model for Retail Business (Doctoral Presentation-MK.) | B8. The Predictive Model for Warning and Surveillance of Thrift and Credit Cooperative in Thailand (Fin.) | C8. Attitude towards Content Display on Websites and Ethical Judgment: A Survey of Webmasters (IT) |
| | A9. Selection of Logistics Service Providers of Hana Microelectronics Public Company Limited, the Northern Region Industrial Estate, by Applying the Analytic Hierarchy Process (Logistics) | B9. Entrepreneurs' Perception towards the ASEAN Economic Community (AEC): A Case Study of Thai firms at the Thai-Cambodia Border Trade (Mng.) | C9. Working Life Quality of Burmese Labors in Northern of Thailand (Mng.) |
| | A10. Selection of Logistics Service Providers of Hana Microelectronics Public Company Limited, the Northern Region Industrial Estate, by Applying the Fuzzy AHP (Logistics) | B10. The Comparative Study of Thailand Competitiveness and the Asian Economic Community (AEC) (Mng.) | C10. Entrepreneurs' Preparation for International Markets Entry (Mng.) |
| 16.00-16.30 pm. | Announcement for "Best Paper Award" (Convention Hall 3 at 4 th Floor) | | |

Consultants

1. Assistant Professor Dr.Nat Vorayoj
Vice President for Research and
Community Service Affairs of
Chiang Mai University
2. Assoc.Prof. Boonsawart Prugsiganont
Dean of Faculty of Business
Administration, Chiang Mai
University
3. Professor Dr. Richard Wright
Fullbright senior specialist, USA
4. Professor Dr. Kim Byong Shrik
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5. Professor Dr.Paul Patterson
University of New South Wales,
Australia
6. Associate Prof. Dr. Nicholas Dimmitt
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| 41. Dr.Pichayalak Pichayakul | Chiang Mai University, Thailand |

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Can Small-Medium Manufacturers Implement Initial Training?

Yuzuru Utsunomiya*

Abstract

The purpose of this study is to explore how small-medium manufacturers (SMMs) implement the initial training of newcomers. The focus of this study is the joint initial training implemented by Japanese small-medium shipbuilders. To gather evidence, we conducted in-depth interviews and document retrievals, particularly focusing on the content and duration of the training and the role of trainers. Using Cochran's test, we estimate whether the regions affect the components of the content and, using 2-way ANOVA, whether the region and the content affect the training period. The study produced two findings. First, the content and the duration of the training are clear. There are completed textbooks that have been used by large shipbuilding companies and arranged for small-medium shipbuilders. The period for the training depends on the trainers' experience. Second, the trainers play an important role because they plan, implement, check, and review the program as well as conduct the training. The training in SMMs can implement initial training while they establish joint training centers and use textbooks and skilled trainers as established training resources. To train the newcomers how to edit work standard and to pool the skilled workers as trainers are required for training the next generation.

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PURPOSE AND BACKGROUND

The purpose of this study is to explore the requirements for introducing initial training in small-medium manufacturers (SMMs).

For SMMs, developing workers' skills is essential for their survival. In SMMs, apprenticeships[1] or workplace learning[2, 3], the period and content of which are unknown, have been conducted. Originally, large manufacturers also implemented apprenticeship due to labor-intensive production technology. Machine or apparatus in large manufacturers were not so sophisticated or automated. Therefore, workers' skills were heavily required for quality assurance and process control. In other words, the production management in SMMs depends on workers' skill.

In some industries, as production technology made progress, the production process was automated and became sophisticated. As a result, the way of training the workers has changed. In the steel industry, whose members consist of large companies, after they progressed technologically managers sought a modern training system in which the duration and content were clear and based on work standards[4]. The cost of the training, however, has made SMMs hesitate[5]. Some managers in SMMs value workplace learning more than modern training[6].

Now, however, building another training system is inevitable because of the skills shortage and the difficulty in recruiting young workers all over the world[7]. Around 2007, in Japan, many manufacturers were faced with skill shortage problem because many skilled workers would reach retirement age. It was expected to bring a serious problem of lack of labor force. To prevent skill shortage problem due to lack of skilled worker, many companies extend the retirement age from 60 to 65. Moreover, they recruited many young workers to compensate the expected shortage. Now, many of the killed workers, however, are too old to work. The manufacturers find out that there are few eligible workers who have proficiency for industrial work and they

should train the newcomers.

In such situation, the conventional training system sometimes fails to produce well-trained individuals. Traditionally, SMMs adopted apprenticeship. This method for skill development heavily depends on the credibility of young workers. It takes so long time for acquiring skill as well. As a result, some newcomers may not be well skilled workers due to the lack of credibility. To succeed the workers' skills, SMMs should develop another training system which can afford to fit such condition[8]. First, the systems for initial training should be built. On the problem of retirement of skilled workers, there is not much that can be done. As they age, they tired easily and take time to recover. It is hard for elder persons to work as core worker. In this article, instead, we focus on the trainers because the trainers' ability affects whether the training will succeed[9]. We also focus on the duration, and content of the training, and supporting system for the training. Assessing the duration and content of the training is necessary to judge its overall effectiveness[10, 11]. Support from public and some other sectors are inevitable to implement initial training[12-14].

I. OBJECT

The focus of this study is the joint initial training implemented among Japanese small-medium shipbuilders.

According to the Census of Manufacturers 2008 by the Ministry of Economy, Trade and Industry, there are a total of 1,678 companies and 47,179 workers in the Japanese shipbuilding industry. Excluding the six large-scale shipbuilders, Japanese shipbuilders are regarded as small-medium shipbuilders on which we put emphasis in this study.

The Japanese shipbuilding industry consists of various types of shipbuilders. It includes both family-owned small shipbuilders and modern large shipbuilders. Some of them build fishing vessels, others build commercial cargo ships. Some of them become heavy industry companies and shipbuilding comes to be one of minor department[15].

Generally, six shipbuilders (Ishikawajima-Harima, Kawasaki, Mitsubishi, Mitsui, Sumitomo, and Universal) which are famous for heavy industry companies as a department are regarded as large shipbuilders. Others are regarded as middle-sized or small-sized shipbuilders. Incidentally, shipbuilders categorized as small-medium-sized shipbuilders build ships most in Japan. Like steel refinery and automobile assembly, we cannot distinguish each of the company clearly.

There are two reasons why we focus on the industry. First, it is typical for Japanese manufacturing industry. Fig. 1 shows the relation between capital intensity of labor and labor productivity by scale of employees. Evidently, the industry holds central position among all of Japanese manufacturing industries. Second, we can also figure out that labor productivity in small-medium-sized shipbuilders is higher than that in large shipbuilders although capital intensity in large shipbuilders is higher than that in small-medium-sized shipbuilders. The gap concerning the labor productivity is not a coincidence. Fig. 2 shows the trend of labor productivity in the shipbuilding industry by scale of employees from 1964 to 2008. Apparently, labor productivity in small-medium-sized shipbuilders grew remarkably. Labor productivity in large shipbuilders grew steadily but the pace of growth was not so high. As a whole, labor productivity in small-medium-sized shipbuilders is higher than large shipbuilders. Fig. 3 is a boxplot showing the distribution of labor productivity by scale. We can check the difference of labor productivity among the scale. In sum, Japanese small-medium-sized shipbuilders have maintained their high labor productivity for more than 40 years. We can obtain some lessons from the trial on initial training by Japanese small-medium-sized shipbuilders.

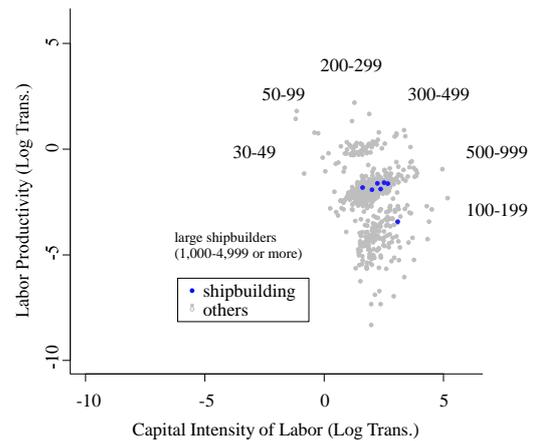


Fig. 1 Relation between Capital Intensity of Labor and Labor Productivity among Japanese Manufacturing Industry in 2008 (source: Census of manufacturing by Ministry of Trade and Industry, logarithmic translated)

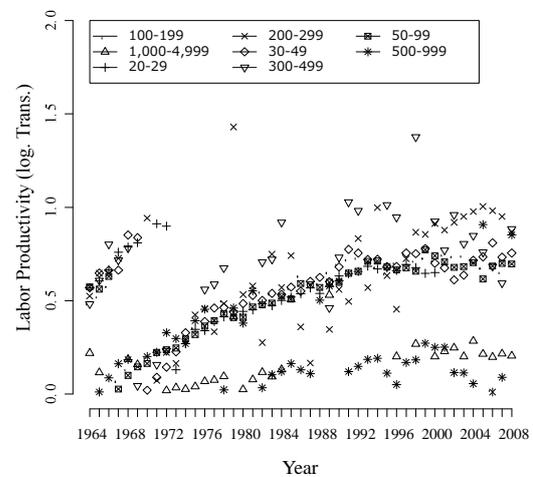


Fig. 2 Trend of Labor Productivity of Japanese Shipbuilding Industry from 1964 to 2008 (Source: Census of manufacturing by Ministry of Trade and Industry, logarithmic translated).

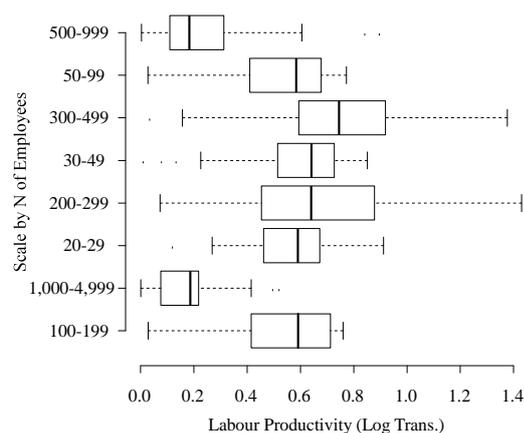


Fig. 3 Distribution of Labor Productivity of Japanese Shipbuilding Industry (source: Census of manufacturing by Ministry of Trade and Industry, logarithmic translated). This shows that labor productivity in small- and -medium-sized shipbuilders is higher than that of large shipbuilders.

Japanese shipbuilders, however, are faced with skill shortage just like many other Japanese manufacturers. Retirement of skilled workers and difficulty in recruitment of young workers result in the problem. For the moment, shipbuilders cope with the problem by extending older skilled workers' retirement age. Concerning the lack of young workers, they recruited many young workers during the 2000s'. Some of them lack credibility for shipbuilding workers and shipbuilders come to realize that they should train the newcomers. In Inno-Shima, from 1999, shipbuilders organized a joint initial training center for small-medium-sized shipbuilders. Each of them is rather small and there is no room to train its newcomers

which take time and involve cost. By joining and co-operating with each other, they try to overcome this constraint. Shipbuilders in other regions followed the trial and established joint initial training center as well.

In order to train newcomers the small-medium shipbuilders founded joint training centers at Higashi-Nihon (HGS), Aioi (AIO), Inno-Shima (INS), Imabari (IMB), Oita (OIT), and Nagasaki (NGS); these locations are all famous as the core regions of the Japanese shipbuilding industry (Fig. 4). Shipbuilders in various regions embarked on the joint initial training in INS where they consulted each other. In 2004, they spent a year in IMB preparing and setting-up the training center. During the preparations, shipbuilders in IMB realized that most of their companies were in danger of skill shortage. In OIT, a recommendation by the Ministry of Land, Infrastructure, Transport and Tourism led the shipbuilders to cooperate and setup the training center. In HGS, the training center is managed in cooperation with the large shipbuilding company U. in response to the recommendation by CAJS (The Cooperative Association of Japan Shipbuilders, which is an industry group that consists of small-medium shipbuilders in Japan). In NGS, they began the center in 2006. In AIO, the shipbuilding company A assisted in the foundation and management of the training center. Since 2010, they began the initial training course. For the details on the training centers, see Table 1.

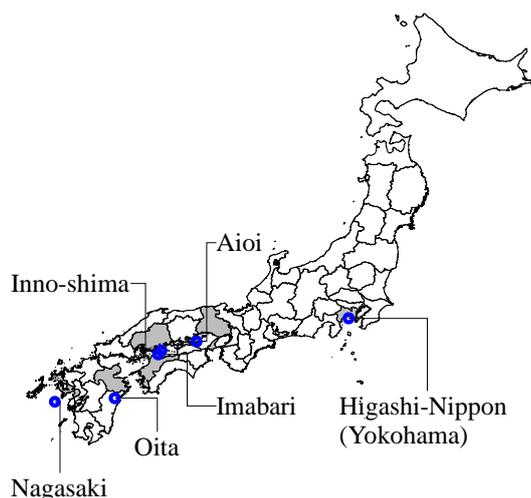


Fig. 4 Location of the Joint Initial Training Center in 6 Regions, Japan. This shows the centers established in the region which is famous for shipbuilding.

Table 1
OVERVIEW OF THE TRAINING CENTERS LOCATED IN SIX REGIONS

| | AIO | HGS | IMB | INS | OIT | NGS |
|------------------------|----------------------------|--|--|--------------------------------|---|-----------------------------------|
| Year found | 2008 | 2005 | 2006 | 1999 | 2006 | 2006 |
| N. of planned trainees | 20 | 40 | 50 | 45 | 40 | 35 |
| N. of trainees in 2010 | 18 | 40 | 93 | 113 | 20 | 30 |
| Training place | IHI Amtec | IHIMU | Imabari Shipbuilding and Shin-Kurushima Dockyard | Naikai Shipbuilding and others | Miura Shipbuilding | MHI Nagasaki |
| Office | Aioi skill training center | Higashi-Nihon shipbuilding skill training center | Imabari Shipbuilding and Shin-Kurushima Dockyard | Onomichi city office | Saiki city office and Usuki city office | Nagasaki shipbuilding cooperation |
| Duration | 2 months | 3 months | 3 months | 3 months | 3 months | 2 months |

II. METHODOLOGY

We conducted in-depth interviews[16, 17] in order to gather evidence that could

demonstrate the background, problem, and solution with regard to initial training. We conducted the interviews in July and August

of 2010 in the regions. At the same time, we collected documents on the duration, content, and method of the training with the assistance of the centers' officers and trainers. The number of interviewees is 16 in total. The documents show a shift in the number of participants as well as the timetable of the training and textbooks.

Using the documents, we studied the duration and content of the training. Before the analyses began, we classified the content, determining which content was implemented by all of the centers and which was not. We called the content that was implemented by all of the centers as "common" and the content that was not implemented by all of the centers as "original". In details, see table 2.

According to prior survey, in modernized training, content and duration are clear. In apprenticeship they are not clear. We can estimate whether training is modernized by considering content and duration of the training. When they are clear, we can regard the training as modernized and there is possibility to construct new training systems which overcome the constraint mentioned above. To estimate whether the training content is different among the regions, we use Cochran's Q test. The significance level is 5%. To estimate whether the duration of the training is different among the regions and the content we use ANOVA (Analysis of Variance). We translate the duration with logarithmic transformation. The significance level is 5%. For the analyses, we use statistical environment R (Ver. 2.12.1)

III. RESULTS

A) Trainers

The trainers at each of the centers also manage the centers. Most trainers in INS, OIT, and NGS are veterans who were once skilled workers. In HGS, AIO, and IMB, all of the trainers are active skilled workers.

In every region, the trainers direct the training plans, evaluate the training results, and identify the problems with the training as well as conduct the training. In addition,

the trainers edit documents, which include the photos of welding bead and other incidents and give the trainees advice to improve their skills. The results are also posted on a board to encourage the trainees (Fig. 5).

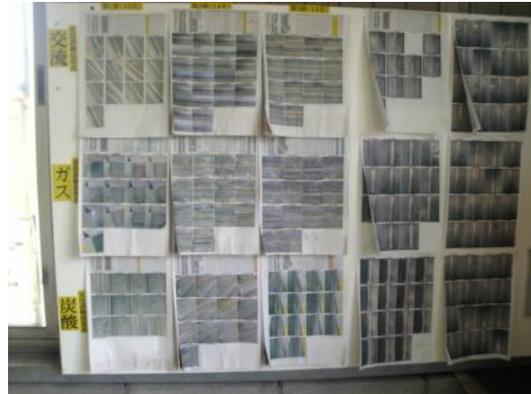


Fig. 5 Grade of Welding Bead with Photo by Each of the Trainee. They are Posted on the Wall and Encourages the Trainees.

The trainers induct newcomers who have limited credibility. The newcomers' credibility is not so sufficient.

Actually, we do not think that trainees come to the training center as workers who are paid and dispatched to train as a representative of the company. They sit down during the waiting time of practice. When they are in the classroom lecture, many of them fall asleep. About a month ago, they were high school students so it may be inevitable that they fall sleep. We cannot, however, leave them be. We tried to wake them up whenever we found them feeling sleepy. Moreover, we trained them on social manners as required of a shipbuilding worker. As a result, some companies expect the center to solve the problem on social manners as well. Primarily, this training should be done by each of the company. But without it, we cannot train...(INS trainer)

They have little skill and knowledge for shipbuilding. Their attitude and social skills are not adequate for what is required of shipbuilding workers; still, the trainers do not abandon the trainees.

Some trainees, especially those who have experienced the same content of the training in some other place, take us lightly. Once we show them the different skills, such as precision of welding and results of intensity test, they become more relaxed. (AIO trainer)

In the past, most of the young workers graduated from industrial high schools which provide specific training for shipbuilding works. When they enter a shipbuilding company, they have already the required licenses and basic skills. Nowadays, however, the special course for shipbuilding tends to be discontinued. As a result, young persons who would like to enter a shipbuilding company cannot learn about shipbuilding work. In addition, shipbuilders cannot recruit credible young persons. Instead, they recruit young workers from comprehensive school, agricultural high school, and fishery high school as well as from industrial high school. Most high-school graduates have no skill and knowledge on shipbuilding.

B) Content

The content of training is clear. Content is provided in what is essentially a textbook. There are three kinds of training textbooks. The centers in HGS, AIO, INS, and OIT use textbooks delivered by CAJS, which originally came from INS. INS gave the original textbooks to CAJS, and CAJS revised them. INS revised the original textbooks published by the large shipbuilder located among INS, which was degraded dramatically in 1988. The large shipbuilder is (HGS officer)

one of the major stocks of human resources. Retired skilled workers entered small-medium-sized shipbuilders around INS. The degradation caused the exhaust of human resource supply and it is also the reason why INS organized joint initial training. IMB revised and uses textbooks that were used for the newcomers of Co. S, which is located around IMBNS in 2010. In NGS, original textbooks edited by the subsidiary companies of the large shipbuilder M. are used. In addition, textbooks for a legal-skill-training course are delivered. With regard to original content, we do not find statistical significance at the 5% level by regions (Cochran Q test, $p = 0.09$)-although the textbooks are different. It shows that original content for training is not always different by region as original content.

In the shipbuilding workplace, it is important to acquire the body sense for safety and efficiency. In HGS, trainees practice the whole range of tasks. By practicing them, the newcomers are able to receive a calm introduction from the boss.

When the trainees were assigned to a certain workplace, the group leader would tell them to pick up a part or material at first. If the newcomers know the name of the part of material, he could obtain a chance of on-the-job training continuously. Otherwise, he loses any chance.

Of course, they cannot operate tools and memorize the name of parts and materials. If trainees touched and watched at least only once, they would not hesitate to operate them.

Table 2
CONTENT AND DURATION IN SIX REGIONS

| | | AIO | HGS | IMB | INS | OIT | NGS |
|-----------------|--------------------------------------|-----|-----|-----|-----|------|-----|
| common contents | reading drawings | 25 | 20 | 16 | 24 | 23.5 | 8 |
| | legal skill training for gas welding | 14 | 16 | 16 | 8 | 19 | 16 |
| | legal skill training for grinder | 8 | 8 | 8 | 8 | 8 | 8 |
| | legal skill training for SMAW | 21 | 24 | 24 | 28 | 16 | 28 |

| | | | | | | | |
|-------------------|--|-----|-----|-----|-----|-------|-----|
| | practice and lecture for gas blowing | 8 | 12 | 56 | 32 | 65 | 16 |
| | practice and lecture for SMAW safety training | 228 | 128 | 48 | 24 | 57 | 60 |
| | | 20 | 26 | 12 | 12 | 11 | 4 |
| | subtotal hours for common contents | 324 | 234 | 180 | 136 | 199.5 | 140 |
| original contents | discipline | 0 | 0 | 12 | 0 | 0 | 8 |
| | introduction to shipbuilding | 0 | 0 | 0 | 0 | 0 | 8 |
| | introduction to building method | 0 | 18 | 4 | 0 | 23.5 | 8 |
| | ship safety act | 0 | 2 | 4 | 4 | 4.5 | 4 |
| | basic engineering information | 0 | 0 | 4 | 0 | 8.5 | 0 |
| | engine and boiler structure | 0 | 2 | 4 | 4 | 8.5 | 0 |
| | shipbuilding assembly | 0 | 0 | 8 | 16 | 8 | 0 |
| | introduction to welding technology and quality | 0 | 0 | 8 | 0 | 0 | 0 |
| | introduction of outfitting | 0 | 8 | 0 | 0 | 0 | 0 |
| | plate bending and distortion fixing | 0 | 4 | 0 | 0 | 0 | 0 |
| | handling electric instruments | 0 | 4 | 0 | 0 | 0 | 0 |
| | rope work | 0 | 2 | 0 | 0 | 0 | 0 |
| | use of tools for assembly | 0 | 4 | 0 | 0 | 0 | 0 |
| | works for repairing ships | 0 | 2 | 0 | 0 | 0 | 0 |
| | introduction of piping | 0 | 0 | 0 | 0 | 0 | 0 |
| | introduction of painting | 0 | 0 | 0 | 0 | 0 | 0 |
| | MAG practice | 0 | 120 | 72 | 32 | 76 | 0 |
| | small assembly and distortion fixing | 0 | 0 | 0 | 0 | 0 | 32 |
| | practical practice | 0 | 0 | 0 | 0 | 0 | 28 |
| | making steel structures | 0 | 11 | 0 | 0 | 0 | 0 |
| | lecture by NK | 0 | 2 | 0 | 0 | 0 | 0 |
| | ISO 14000s' | 0 | 4 | 0 | 0 | 0 | 0 |
| | practice for NK skill test | 0 | 3 | 66 | 32 | 15 | 0 |
| | lecture by JG | 4 | 0 | 0 | 0 | 0 | 0 |
| | skill training for hooking | 0 | 24 | 24 | 24 | 16 | 24 |
| | skill training for hoist telpther | 0 | 18 | 24 | 24 | 16 | 24 |
| | practice and lecture for crane operation | 0 | 0 | 0 | 56 | 0 | 0 |
| | high-altitude working vehicle | 0 | 0 | 16 | 0 | 22.5 | 0 |
| | one-side welding practice | 0 | 0 | 0 | 0 | 0 | 16 |
| | applied practice | 0 | 0 | 0 | 72 | 15 | 0 |
| | safety lecture for hooking | 0 | 0 | 0 | 16 | 0 | 0 |
| | safety lecture for hoist telpther | 0 | 0 | 0 | 16 | 0 | 0 |
| | safety lecture for gas blowing | 0 | 0 | 0 | 24 | 0 | 0 |
| | hooking practice | 0 | 0 | 4 | 0 | 16 | 0 |
| | hoist telpther practice | 0 | 0 | 4 | 0 | 16 | 0 |
| | others | 0 | 2 | 14 | 8 | 18.5 | 12 |
| | subtotal hours for original contents | 4 | 230 | 268 | 328 | 264 | 164 |
| | total hours | 328 | 464 | 448 | 464 | 463.5 | 304 |

As a result, the newcomers do not lose work skills. In HGS and AIO, the trainees paste the drawings of a ship's hull on paperboard and cut them to build a model hull (Fig. 6). Through the practice, they realize that some work processes enable the workers to do their job more quickly. They can also acquire the essential sense for hull construction, which is built in an inverted position. In



Fig. 6 Paper-crafted Model of Bock (a part of ships' hull). This leads trainee to understand structure of hull, piping, and other instruments.

C) Duration

The duration of training is also clear, and there seems to be no difference among the centers. Fig. 7 shows the duration that each of the centers spends for both common and original training content. At a glance, it shows the difference by region and the content of the training. This difference is associated with the difference of the production technology used in each of the regions. In AIO, where the shipbuilders frequently use shielded metal arc welding (SMAW), the center spends a relatively longer time practicing the welding method, which is included in the common content. In another region, they use CO₂ (carbon dioxide) arc welding for which more practice is included in their original content. We, however, do not find a statistically significant difference at the 5 % level (2-way ANOVA, $p > 0.05$). Although the trainers allocate times

experience when developing their addition, training helps obtain a sense of safety while using experimental facilities. In AIO, INS, and IMB, there are facilities that reproduce the factors that cause industrial injuries, such as falling and electric shock. Through this experience, they acquire an understanding of hazardous situations and the sense to prevent industrial injuries. experimentally, there seems to be a consensus on the duration among the centers.

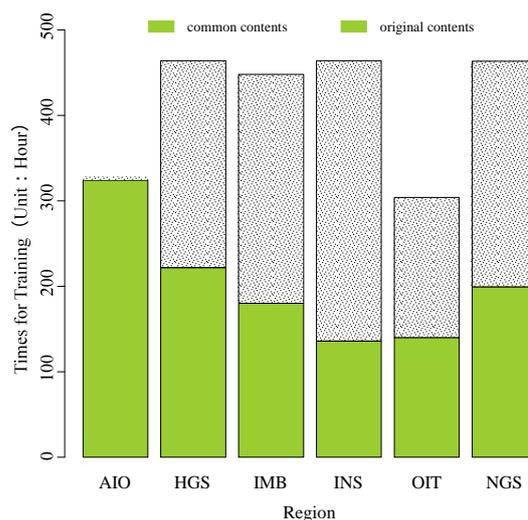


Fig. 7 Time Spent by Each Training Center on Common and Original Contents

In some regions, the centers allocate the duration depending on other conditions. Fig. 8 shows the differences concerning the common content by region. The center in HGS puts more stress on the practice of SMAW. Because SMAW is regarded as the basis of the entire arc welding technology, the trainee will understand the other welding methods, such as CO₂ welding, through SMAW training.

In IMB and OIT, the centers allocate more time for the practice of gas fusing, because they put more stress on preventing accidents related to technology.

On the duration of time for training, we find a statistically significant difference by the content of training (2-way ANOVA, $p < 0.05$). Duration in each of the training center is regarded as not to be statistically different. We do not find a statistically significant difference by the regions (2-way ANOVA, p

> 0.05). In each of the center, duration seems to be adjusted depending on the circumstances. In sum, six joint initial training centers devise to allocate duration for limited time period.

Initial training enables the trainees to acquire the basic technical skills and become licensees in less time than before. In the shipbuilding workplace, the newcomers spent about three years working to obtain these skills and licenses. Now, they do it in three months. The joint initial training also reduces the time for acquiring basic skills.

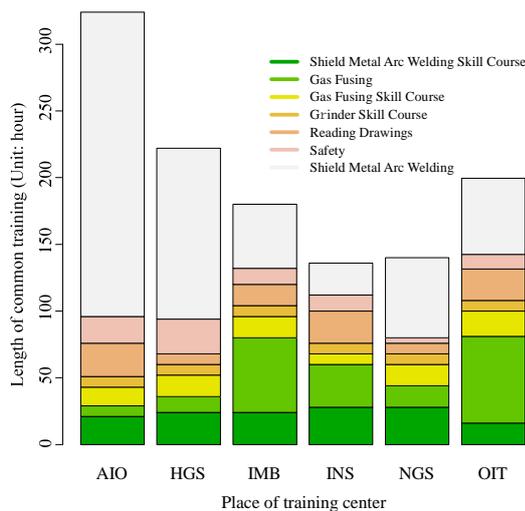


Fig. 8 Time Taken by Each Training Center for Imparting Training about the Original Content

D) Support system

In each of the region, various supporters help the center.

The Ward office and large shipbuilders help to manage the center. In INS, IMB, and OIT, ward officers substitute office works concerning the training, such as registration of the newcomers and negotiating against regulatory agencies. Some of them donate funds for purchasing pre-cut materials for training of welding, wages for trainers, and other items. Large shipbuilders hold the center as such. In AIO and INS, large shipbuilders themselves operate office work. They also provide scraps for the center. The

center or the trainers reprocess them to make test pieces for their practice. Foundations on shipbuilding also assist the centers as well. They donate training tools such as welder, and funds to construct training facility for safety training. Thanks to the supporters, the center need not hire persons for office work and the center and trainer can concentrate on training with fine equipment (Fig. 9, Fig. 10).

Of course, companies which dispatch trainees cover the cost partly. Depending on the region, per trainee; they pay 30,000 JPY per month. They are satisfied with the price.

For the effect, the cost is not so expensive. (A company around AIO)



Fig. 9 Training Equipment for Training in IMB. Wall, Hanger, and Some of Equipment was Constructed by Trainers. In some regions, Japan Foundation donates welders and other devices for training.



Fig. 10 Training Equipment for Training in IMB (Cont.).

IV. DISCUSSION

The purpose of this study is to explore how the small-medium manufacturers implement initial training. The object is joint initial training implemented by Japanese small-medium shipbuilders. Particularly, we focus on the content, duration, and method of the training, and the role of the trainers, and supporting systems.

We have identified two facts. First, the content and the duration of the training are clear and already common among the regions. The content and period depends not on work standards but on the trainers' work experience, technological characteristics, training effectiveness, and accident prevention. Second, the trainers manage the training centers by themselves. They decide the duration and the content, implement the training, check the effects of training, and improve the training program. These facts imply that SMMs can implement initial training by founding joint training centers and using the existing content and skilled workers.

It is ironic that the training depends on support or heritage of large shipbuilders. Actually, thanks to trainers' effort, the initial training succeeds in switching the average young person to candidate of skilled worker. Duration for training is allocated in accordance with trainers' experience. The Ward office and other public sectors help them. Contents of the joint initial training textbooks, however, originally come from textbooks edited by large shipbuilders. In some regions, large shipbuilders offer the place for training, yield scraps and materials for practicing welding, and dispatch trainers and officers. If it were not for their support, the training would not be implemented independently.

V. CONCLUSIONS

We conclude that joint initial training allows SMMs to solve the skill shortage with only a limited contribution on their part. SMMs should accumulate resources for training in the future as well as develop

chances to acquire work experience.

SMMs can surely implement initial training for their newcomers. This will enable SMMs to provide newcomers with basic skills within a shorter period than before. The skills that the trainees acquire at the training center, however, are different from ones needed at the workplace. For skilled workers, brilliant technique and the function for production management are required [18-20]. The workers acquire such skills only through work experience.

The present content and management of training is dependent on the completed textbook and skilled workers. Such resources may become obsolete as technology progresses. Someday the skilled and aged trainers will disappear from the centers. The centers will lose the core members able to implement the training. We propose that the centers add training which gives the capacity to make work standards and to pool the promising trainers. To make work standard by present workers will contribute to revise the textbooks when the production technology will make progress. This will also present an opportunity to review and improve the workers' own daily work. Pooling the trainers will help prevent the possibility of the shortage of trainers.

The future direction of this study will be one that encompasses training implemented in subsidiaries located in overseas, especially Southeast Asia. Concerning the proficiency of young workers, they are faced with the same situation as what the Japanese SMMS are facing now, such as low retention rate, lack of credibility, frequent job hopping. Some of the subsidiaries must overcome the hard conditions and succeed in training their workers. Their activities on human resources would give us fruits for next generation.

ACKNOWLEDGMENT

The author gratefully acknowledges the funding provided by the Sasagawa Scientific Research Grant from the Japan Science Society.

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Trend of Thai Undergraduate Students' Netiquette in the Age of Information Technology

Pichayalak Pichayakul* and Ravee Phoewhawm**

Abstract

This research focused on studying trend of Thai undergraduate students' manner on using internet as their communication medium or so called netiquette. The focal points consists of students' habits in using internet, types of electronic channels, time they spent on it, popular subjects of communications, languages used, their emotional involvement, and their self-perception on their own internet usage behavior. Theoretical framework of this study based on communication cycle and netiquette concepts. Multiple choice surveys were distributed to 100 undergraduate students at Chiang Mai University by convenient sampling method. The received data was analyzed using descriptive statistic methods. The findings of this research were analyzed based on communication cycle theory which classified into 6 stages: thinking, encoding, transmission, receiving, decoding, and responding stage. The results show that all of the students use online communication technology in some ways. Most of them have their own communication equipments and others use facilities that their school provides for them. Many of the findings lead to the conclusion that Thai undergraduate students' netiquette is in its downturn since students lacked the knowledge and awareness of importance of netiquette; even though they had no intention of breaching the etiquette rules. This study indicates several points that students should be aware of in order to change their behavior before they enter the professional working world.

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Introduction

Whether the content is about politics, economics, or general social issues, information technology has altered the way people communicate with each other as well as working together. The young generation grows up using internet as their communication medium and adapting their communicating habits along with the changing technologies. Etiquette on using internet as a communication medium or so called "netiquette" has been a widely discussed issue of whether internet brings communication etiquette down or benefits by encompassing the deficits of netiquette. This study focuses on studying the trend of undergraduate students' netiquette. It is crucial to study undergraduate students because they will soon enter the workplace where etiquette is considered as an expected professionalism that all working people should possess. According to Preece (2004), as internet settlers form cyber-communities increased, the importance of etiquette grows. In Asia, there was about 23.8% growth of people using internet each year. People from all walks of life, especially in a business setting, tend to exploit online communication to save communication-related cost and to increase their efficiency and flexibility of communication. Even though online communication has several benefits, it could not perfectly substitute face-to face communication. In many cases, it leads to miscommunication. At present, people tend to interpret information from the message and the surrounded atmosphere including netiquette of another conversation party.

Lack of etiquette is weakening sociability and even destroying online communities. Etiquette online is not just nice to have, it is necessary. It is important that academic institutes should know the level of students' netiquette in order to prepare or fix their netiquette habit before they enter the professional work places. The results of this study would provide information of students' behaviors on using internet as the communication means and its trend so that educators can use this information to design etiquette courses or lessons to students.

Research Questions

Main research question

What is the trend of Thai undergraduate students on using internet as their communication medium in terms of etiquette?

Sub research questions

- To what extent do undergraduate students are nowadays being involved in using internet as their communication medium?
- How much time do undergraduate students spent on communicating via internet?
- What are the popular types of electronic channels among undergraduate students?
- How do they use Facebook in terms of netiquette perspective?
- How do they use e-mail in terms of netiquette perspective?
- What are their self-perceptions on internet usage behavior?

Research Objective

The purpose of this research is to know and understand the trend of Thai undergraduate students' netiquette in this modern era. The result of this research will be valuable information, especially for educators, to indicate netiquette skills that students are lacking of and to be able to help them develop such skills before they enter the professional workplace.

Literature reviews

Netiquette

Netiquette, or network etiquette, is the contemporary term for the proper way people communicate and interact with each other over the internet (Yale University Library, 2007). Netiquette is derived by merging the words network and etiquette (Scheuermann, L. & Taylor, G., 1997). Considering netiquette, there are conventions of politeness pertaining to e-mail and technology use. As the internet continues to evolve, so do the issues that impact the way people use it and interact with others. It is important to recognize that online communication is different from that of the face-to-face world, with its own unique

customs and practices (Florida Atlantic University, 2011). In a face-to-face situation people are able to change their tone of voice, to rephrase comments and to present body language that welcomes further communication and thus promotes understanding. However, communicating via internet such as using e-mail or Facebook do not offer benefit of these signals. People should be more aware of silent message while communicating via internet. In addition, some messages are publicize that people should be well conscious of since it might convey their not preferable image to the social (Yale University Library, 2007). Making internet communicators aware of appropriate "netiquette" will enhance today's instant communication process (Spinks, N., wells, B., & Meche, M., 1999).

Impact of netiquette

People should be prepared on how to communicate in a virtual working environment with other individuals. In this setting, the structure of the wording or sentences that is transmitted can either create a good working relation or destroy it. Such a workplace requires one to be able to communicate in a manner that is formal, informal, downward, and horizontal. In addition, there is a need for a cross-discipline in communicating upon encountering vast sectors of the industrial field. Also, it is essential that the method of communication leads to a collaborative effort so that problems may be solved rather than being sulked on among colleagues. Furthermore, not everyone will have the same demeanor in exerting netiquette due to differences in educational background. Therefore, it is essential that netiquette entails itself as a lifelong practice of skill development for undergraduates to make this a guiding discipline throughout their lives (Nealy and Ashe, 2003).

Regulations in the virtual community

Virtual environment can be seen as leisure and working simultaneously. However, there are some limitations for people to be aware of in terms of being clear on what constitutes wrongful acts when one engages in virtual communication. The

practice of netiquette can help people to avoid the following issues in being labeled as an offender:

- **Harassment:** This is considered to be the most serious of the virtual crimes. It crosses the border between the real and the virtual, with the intent of the harasser being to distress the player. Although this is emotional rather than physical, harassed players can be significantly distressed.
- **Theft:** A person is considered to be guilty of theft if she/he dishonestly appropriates property belonging to another with the intention of permanently depriving the other of it. As players within multi user dimensions own items and property, it is quite feasible that theft can occur, and conceptually this is identical to real theft. Virtual theft refers to the stealing of constructs/objects created or existing within the multi user dimensions and has no impact on the player's real world possessions.
- **Language:** To send anything via internet, it is important to consider the recipients' feelings. Since the recipients cannot see the sender's non-verbal cues in an electronic message, the sender you should try to be cautious about how her/his messages are worded. Impolite language should be omitted in all cases.
- **Chat and instant message:** Use abbreviations only if your reader will understand and if the e-communication is not formal. Abbreviations such as BTW (By the way) or IMHO (In my humble opinion) are used most often in chat sessions, less frequently in e-mail. Emoticons such as smiley face can help convey the sender's intention. However, emoticons are most commonly in online chat and informal e-mail messages.
- **Formatting:** Format of electronic messages conveys hidden meanings. For example, to type in all capital letters denotes screaming or yelling. It is recommended that Instead of

using capital letters, the message senders should use bold type or underline to emphasize that part of their message. In addition, typing in all lower case is seen as overly informal and unprofessional.

- **Size of message:** The message senders should be cognizant of the size of the attachments that she/he would like to send. The recipient's Internet Service Provider (ISP) may have limits regarding the size of attachments or mailbox quotas. It might also take the recipient a long time to download such message or file if he/she does not have a high-speed Internet connection. Therefore, the sender should resize the file or compress it or zip it before sending those messages out.
- **Contact information:** In a professional business setting, the senders should include a signature (an identifier that automatically appends to the sender's e-mail message) that contains the method(s) by which others can contact you (usually the sender's phone number, fax number, etc) (Hall and George, 1999 & Florida Atlantic University, 2011).

A Model of Communication Acceptance

The attributes of a person communicating with other through the tools of information technology should be described as the following:

- thorough and precise
- able and willing to cooperate with other users
- committed to common good
- co-responsible, to some extent, for the collective life conducted online
- generous, kind and tolerant towards other users

It should be underlined that such a user does not have to be altruistic; netiquettes do not persuade readers into choosing other's good over their own. It is rather about linking personal interest with interests of others and with the common good, thus about opposing against selfishness and egoism (Pregowski, 2009).

Theoretical Framework

The theory applied for this study as theoretical framework is the communication cycle which is defined as the entire process of communication, entailing the origin and conceptualizing the desired message to it being communicated to the right person, to that person interpreting it and responding to it. The theory is derived from viewing communication as being part of human fundamental. The assumption is that there are many different methods of communication and people are gaining more and more all the time.

The communication cycle consists of six stages. It begins by suggesting that a person "aim" what she/he want to say, how to say it, what she/he want the other person to do with the information. This is the stage focusing on how we will communicate the information and to who we wish to communicate with.

Once a person has organized what she/he wants to say, who to say it to and how to say it, she/he has to consider social influences and other things that may 'change' what she/he wants to say. This is the "encoding" stage. The message sender have to consider what language to say it in, what to assume of the receiver and are these assumptions correct? The sender also has to consider what the receiver may be assuming about the sender. Their assumptions may hinder and change from the original message intention.

The next stage is vital in successful communication. This stage is the "transmission" stage. The message sender needs to be able to transmit the message that she/he wish to communicate in right format and at the correct time. The sender needs to consider if there will be any distractions to hinder our communication attempt, if she/he need to summarize and able to add anything to increase the clarity of what she/he are trying to say.

When a person receives the information from someone, if they are speaking, the receiver must take into account that people thinks 3 times faster than speaks, and therefore, it is much easier for a speaker's words to get muddled up with other thoughts and distractions. Reactions and

questions must not happen until after the speaker has finished with what they were saying. This stage is called "receiving."

The next stage in the communication cycle is called "decoding." This is the opposite of encoding. If the sender has transmitted the information correctly and has given enough attention to what they are saying, including their body language and tone of voice, then the receiver should be able to decode the message effectively. People may sometimes feel that some senders are not approachable in certain circumstances, but one must remember, the meaning of the message is the responsibility of the Sender and not the receiver.

The last stage in the communication cycle is "responding." This gives the receiver the chance to ask any questions and this also gives the sender the chance to realize if they have missed out any stages in the communication cycle (Godbole, 2010).

Research Methodology and Analysis

The research methodology applied a devised multiple choice survey aimed at undergraduate students of Chiang Mai University. The survey sought to gather the respondents' basic information, their netiquette application of communicating via internet focusing on using e-mail and Facebook. The focal points consists of the informants' involvement in using internet as their communication medium, types of electronic channels, time they spent on it, popular subjects of communications, languages used, their emotional involvement, and their self-perception on internet usage behavior. One hundred multiple choice surveys were distributed to undergraduate students at Chiang Mai University by convenient sampling method. The received data was analyzed using descriptive statistic methods. Statistics including frequency and percentage were used to explicate the results of this research in a measurable form.

Results and Analysis

Basic Information

The informants of this research were 20-23 years old undergraduate students studying at Chiang Mai University. Their average monthly income was 5,001-7,500

Baht. 81% of the informants were in their sophomore and junior year. It was notable that as many as 89% of them owned a personal computer notebook and always bring it to campus. Most of them use their own notebook computers to connect to the internet and using it as their communication tools. Over 85% of the respondents have internet connection at their accommodations and pay about 300-600 Baht per month for the service. Another type of major equipment they used to connect internet is mobile phone. The survey result shows that 78% of them own mobile phones that have an internet connection feature. Those aforementioned phones include: Smartphone (42%), Blackberry (30%), and i-Phone (6%). The internet monthly service charges that students pay ranged between 300 to 600 Baht. As for the internet service fee expenses on the computer at their accommodation and on their mobile phone, approximately 50% of students pay on their own while the other 50% have their parents pay for them.

Application of Online Communication

86% of the informants expressed that they, on a routine basis, spent about 3 to 6 hours a day surfing internet. The interesting finding was that 4% of the total informants said they spend about 12 hours a day on internet and those students always bring their notebook computers with them everywhere in order to access the internet. Another interesting finding was that about 83% of the informants spent up to 3 hours a day on the internet using their mobile phone. When asked where they usually use their mobile phone to access the internet from, the top three places that students answered were: their own accommodation (57%), library (44%), and classroom (42%). To the question of when they usually use their mobile phone to access the internet, the top three answers were: whenever they want to (74%), when they are alone (36%) and when studying in the classroom (18%). The students were asked to write down the proportion of their internet usage. The findings showed that most students spent the highest proportion of their internet usage time on Facebook, the remaining results show that they use the e-

mail, and search through the internet for other purposes.

Using E-mail

The survey result reveals that 86% of the informants have one e-mail account and 19% have 2 e-mail accounts. It is interesting to learn that there was one out of 100 respondents that did not have an e-mail account. Most of the students' e-mail addresses were unprofessional since they are informal and personal. The popular ways of naming e-mail addresses were to use cartoon characters' names and/or their nick names with some casual words such as Hello Kitty@hotmail.com or Jimmy_last_love@yahoo.com (pseudonyms). 100% of the informants use e-mail to communicate with friends; 43% with their teachers and 24% to themselves (such as sending their working files to themselves instead of using flash drive). There were 21% of informants who checked their e-mail on a daily basis, the majority of them (31%) do it every week, and while as many as 13% just check their e-mails only once in a while. All of the informants (except the one who did not have e-mail account) spent 0-2 hours on e-mail. When receiving e-mail from others, only 15% replied right away, where 57% took more than a day to over a week in replying, and 27% accepted that they do not care to reply their incoming e-mails at all. According to the survey results, students seem to be unconcerned about netiquette. They communicate in ways that they feel comfortable with. For instance, 66% of them send mass e-mails to save time but are not concerned about other receivers who were not directly related to the message; 70% began their e-mail message with the message that they would like to convey without greeting and ending words; 54% did not put their name when they were finish in writing the e-mail; 16% accepted that they always forward serial-mail knowing that they should not do it; 56% said they ignored to send a "thank you" in the e-mail when somebody did a favor for them via e-mail (such as helping to answer their questions); 19% did not care for language usage when communicating with different levels of people; 15% used emoticons in their e-mails;

36% never checked to see whether the attached files they sent could be opened or not; 29% never cared to zip large files that is to be sent; 36% confessed that they used to send personal things that should not have been sent via e-mail such as personal improper photos and 3% said that they even often did this; 55% used impolite words in e-mails while 4% said they did this often and 3% said they did this all the time; and 81% used modified words (words written in a non-customary form such as writing "Who are you?" as "Who r u?" and 37% said they often did this.

Using Facebook

The survey results showed that every informant has her/his own Facebook account where 71% have 1 account and 29% have 2 accounts. Similar to e-mail name settings, most of the respondents use casual words to be their Facebook account names such as Ding Dong Ping Pong (pseudonym). Just a few of them use their real names to name their Facebook account. It is interesting to find that 40% of the informants checked Facebook 1-5 times a day and as many as 18% checked their Facebook more than 20 times a day. 86% of the informants spent 2-4 hours a day on Facebook and there were 8% that spent more than 8 hours a day on Facebook. When receiving facebook message, 55% of the informants answered right away while 43% said they would answer whenever they have time, and 2% said they never reply. 79% have more than 250 Facebook friends on their friend list. 87% of the informants used Facebook to chat with friends the most. 95% of them used to write message on the "status" line and said that they aim those messages to communicate to their friends as well as to the public in general. 98% of the informants used to send messages to other people. According to the survey results, students seem not to be unconcerned about netiquette when using Fcebook. For instance 90% accepted that they use to write impolite language in their messages where 33% said they did it often; 86% used modified words and 50% said they often did this; 94% used to post pictures on their Facebook albums and as many as 21% had been asked to take down some pictures for several reasons such as

pictures that may be deemed as too personal and such; 29% used to take pictures from other people's albums and used them for their own purposes without asking for permission from the owners; and post all kinds of pictures ranging from just scenery pictures to photos of themselves and/or friends drinking alcohols. In regards to the emotional involvement with Facebook, 78% of the informants expressed that they would not care if nobody respond to their message posting while 22% confessed that they would feel left out and disappointed; and if they posted photos and no one put any comment on those pictures, 93% would not care, but 7% said they would feel disappointed.

Other Online Communication Channels

Considering other online communication channels, 48% used Twitter; 36% of the used Youtube to post video clips on, 36% used SKYPE; and 5% have their own blogs. It could be seen that Facebook and e-mail are significantly well used by the informants while other types of online communication channels popularity are not compatible.

Self-Perception on Internet Usage Behavior

From the 100 informants, only one percent does not or barely use internet to communicate, but 58% said they use it optimally, 37% said they use it too much, and 4% said that they were very addicted to it to the extent that they could not live without it. When asked what they thought about the effect of using internet as a communication medium, 73% said that it helped them quickly reach information they needed, 45% said it made them an up-to-date person, 8% felt that it made them well-accepted among peers, but 10% thought that it made them an obsessive person.

Significant Findings

The research results show 2 significant findings. The findings and their supporting evidences are explained as follows.

1. Undergraduate students highly utilize online communication

According to the findings above, it could clearly be seen how the undergraduate students' netiquette trend goes. In addition, this trend is crucial because it involved the majority of students these days. Communication via internet is undeniably for this generation of students. 78% of them own mobile phones that have an internet connection feature and use it excessively. From the research result part, 86% of the students spent 3 to 6 hours a day surfing internet and the highest proportion of their internet time was spent on Facebook. It was found that 86% of the students spent 2-4 hours a day on Facebook and as high as 8% spent more than 8 hours a day on Facebook. Moreover, 18% of them checked their Facebook more than 20 times a day. 37% of the students said they use it too much, 10% of them thought that they are internet/Facebook-obsessive person, and 4% said that they were very addicted to it to the extent that they could not live without it.

2. Trend of undergraduate students' netiquette is in an undesirable direction

There are a number of research findings indicating that the trend of undergraduate students' netiquette in this age of information technology is significantly in an undesirable direction. In other words, the undergraduate students tend to be lack of manners in communicating and interacting with each other over the internet as well as having low consideration to people around them while communicating via internet. The following findings show evidences to support the aforementioned research conclusions. Those issues are categorized based on the "Regulations in the virtual community" by Hall and George (Hall and George, 1999 & Florida Atlantic University, 2011).

Harassment:

- 36% of students used to send personal things that should not have been sent via e-mail such as personal improper photos.
- 21% of students had been asked to take down some pictures from their Facebook accounts for several reasons such as pictures that may be deemed as too personal.

- 44% of students use their mobile phone to access the internet from the library and 42% from the classroom. Such behavior could make people around them feel uncomfortable, annoy, or even angry.
- 74% of students usually use their mobile phone to access the internet whenever they want to no matter where they are or who they are with. Such behavior, again, could make people around them feel uncomfortable, annoy, or even angry.

Theft:

- 29% of students used to take pictures from other people's albums and used them for their own purposes without asking for permission from the owners

Language:

- 55% of students used impolite words in e-mails.
- More than 80% of the students' e-mail addresses were unprofessional, for example, Jimmy last love@yahoo.com (pseudonyms).

Chat and instant message:

- 81% of students used modified words (words written in a non-customary form such as writing "Who are you?" as "Who r u?")

Formatting:

- Most of the students do not know that using all capital letters means shouting.

Size of message:

- 36% of students never checked to see whether the attached files they sent could be opened or not.
- 29% of students never cared to zip large files before sending them via e-mail.

Contact information:

- 70% of students began their e-mail message with the message without any consideration to write down the receiver's name or using greeting and ending words.
- 54% of students did not care to put their name when they finished their e-mail message.

Others

- While standard international e-mail etiquette states that people should answer their e-mail within 24 hours, 57% of students took more than a day to over a week in replying, while 27% accepted that they do not care to reply their e-mails at all.
- Whereas standard international e-mail etiquette states that people should only send e-mail to who they want to convey message to. However, 66% of students did not care and accepted that they usually send mass e-mails just to save their time but they were not concern whether those e-mails will waste other people's time or not.

Analysis

The Finding part did indicate the importance of internet communication as well as the trend of students' netiquette already. In this analysis part, it analyzes this particular based on the 6 stages of Communication Cycle theory (Godbole, 2010). The first stage is the thinking stage, which is to prepare a message the sender would like to convey. As online communication comes into play in this age of information technology, people seem to communicate more frequently and with less formality. The survey result revealed that the informants tended to spend a lot of time chitchatting with friends casually. The idea of the message was to be in touch and correlate with friends but not much on the content.

The second stage, an encoding stage, is to choose the channel to communicate. It was found that all 100% of the informants who were selected to be representative of Thai undergraduate students of this study used internet as their communication channels. The most popular online communication among this group was Facebook, followed by e-mail. Even though e-mail is considered as far more formal than Facebook, students use Facebook significantly more than e-mail. The medium of online communication was not a problem for them since 89% have their own notebook computers and 78% owned mobile phone with internet feature. For those students who do not have the mentioned communication

equipments, they used computers that the school provided them in computer labs as their online communication method. It was interesting to learn from the survey that the students' income did not correlate with having online communication equipments. For example, some students who earned less than 5,000 Baht a month own Smart phones or even Blackberry. About half of them paid for the internet service by themselves while the other half had their parents paid for them. This implies that no matter how much they earned, online communication equipments seemed to be a necessary thing for this generation.

The third stage is a transmission stage which considers how the message sender transfers the message to the receiver. The findings show that the informants tend to do online communication as they wish. Many send message whenever they want to without being concerned about the surroundings or the people around them. For example, they do online communication all day long, while they work, after they get up in the morning, and even while they were studying in the classroom. In addition, they did not care about the physical places that they were sending the message from. They send it from any places that they are located from, such as their dormitory, library, classroom toilets, and even from their vehicles when they are currently driving. This survey result reflects deterioration in netiquette where students display a reckless concern for what should or should not be done in regards to online communication usage. For example, they were not aware that using communication equipment in the classroom, or sending text messages while driving, or sending out e-mails during a face-to-face conversation with other people is considered as having bad manners. Furthermore, the survey results showed that students did not really pay attention to how they send the message. For example, they did not categorize on how to use different functions of the e-mail. Many use the function of "To, CC, BCC" interchangeably and some just use the one they felt familiar with; eg., using "To" for all occasions. As much as 70% did not write greeting words or even the name of the receiver in the message.

54% did not put their name with the sent message. To greet the correspondence partner in a formal manner, to call their names, and letting the receiver know your background are considered as good etiquettes. However, in this era of modern information technology, there is a dismal trend of carrying out proper netiquette on part of these students.

The fourth stage is the receiving stage. This stage depends on whether the receivers check their online messages or not and how often. The results showed that students checked their Facebook very often (up to more than 20 times a day), while the majority of them did not check their e-mails on a daily basis. 13% did not (or close to none) checked their e-mail at all. This fact also contradicts with the good etiquette online communication practice.

The fifth stage is decoding stage or interpretation stage. The receivers decode messages from several factors including the words and other hidden connotations. It was obvious that students did interpret hidden message from their online communication. For example, a significant number of students said that they felt disappointed when people in their communication circle do not response to their posted message or posted photos. It could be observed that they were not really concern about the content of the response messages, they were concerned more about getting the response messages. In this information technology era, people are well connected to each other on the cyber space, which means that they can easily communicate to others and they expect that others were able to communicate back to them with ease. However, it was a double-edged sword. In the case where other people in this communication cycle responded, it may be considered just neutral. But if there is no response, it may imply ignorance or just not being interested in the message. Another trend that is aligned with the mentioned case was that students tend to reply to Facebook right away - this may be to fulfill their emotional need.

The last stage is the responding stage. Most business etiquette books said that business people respond to their e-mails within 24 hours, and it is considered rude to

reply later than that, and worst to not reply at all. The survey result revealed that 56% did not reply to their e-mails and 64% would wait until they were ready to reply, which in most cases took much more than 24 hours.

Conclusion

The aim of this paper was to find out trend of Thai undergraduate students on using internet as their communication medium in terms of etiquette. From the research results, findings, and analysis, it could be concluded that the etiquette of the Thai undergraduate students are in a downturn direction regarding to several fact discovered in this work. Perceptibly, they were lacking in the knowledge and awareness of netiquette, even though they may have no intention to breach the etiquette rules. They perform on their will and were not aware of etiquette, such as using their mobile phone to send message to other people while ignoring the people who are talking with them at that same moment. There are several things that should be told or taught to these students before they get into the professional workplace. They are doomed to embarrass themselves without knowing what etiquette they should possess when functioning in the workplace. Etiquette is a skill that can be taught and learn. This study indicated several points that students should know and change themselves. The results of this study should be provided to educators or people who are related in developing students' social skills before they enter the working world. E-mail etiquette is necessary for people in their professional career and this skill should be put in the university academic curriculum. In addition, in this age of information technology, it is undeniably that Facebook plays a critical role in the cyber space communication. Even though it may seem informal, it is important to pay attention to and to care for manners on using it. Due to its invasive popularity, it is another e-communication channel that academic institute should consider teaching its students on Facebook netiquette.

Suggestion for Future Research

While there is a limited work of netiquette dealing with the undergraduate students. This is just one-sided research. The future research should be on the perception and expectation of the employers towards their employees in terms of netiquette. Such research would provide a good information for academic institute to design its etiquette courses to better serve the work markets.

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The Modeling of the Influence of Collaborative Leadership and Corporate Culture towards Team Performance: Case Study on PT JASA MARGA

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Abstract

In response to rapid changes in business environment, PT. Jasa Marga has to improve the corporate performance by increasing team's capability. Company's management plans to build corporate leadership and culture to increase the team performance. This research aims to analyze the influence of collaborative leadership and corporate culture towards team performance based on personal values characteristic of employees. This research uses an agent-based modeling to accommodate the changing of task roles for each agents that influences the team performance. This research shows that PT. Jasa Marga must give the same priority in developing each factors of collaborative leadership and also in developing the types of corporate culture to optimize the team performance.

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1. Background

PT **Jasa Marga (Persero)** is a state-owned company that becomes one of operator and also pioneer of toll undertaking in Indonesia. PT. Jasa Marga is still becoming main toll operator by operating 76.2% out of the whole toll's length in Indonesia. This company operates toll network in Indonesia and keeps all the toll road under its corporation functioning well. PT Jasa Marga cooperates with other parties in building new toll road, increasing toll facilities, and other things that can maximalize its utilities to the toll users.

The ratification of the laws no. 38 year 2004 opens the chance to private companies to be involved in the development and operation of toll. It increases the competition in Indonesia's toll undertaking. This improvement should certainly be able to be responded fastly by PT. Jasa Marga. Company should be able to compete by increasing its competitiveness. The efforts in winning the tender process of that toll building must be supported not only by company's financial ability but also the data of technical ability and the operation of toll undertaking. Related to the operation of toll undertaking, company should refer to Minimal Service Standard (MSS) that is determined by Toll Management Body (TMB). The components of MSS cover: (1) the quality of toll's condition; (2) the average velocity; (3) the accesibility; (4) the mobility; and (5) the safety. If company is not capable of fulfilling those MSS then the lowest consequence inside the company is the decrease of company's KPI. And the highest consequence is the cut off of temporary toll operational license in the lane that can not fulfill those MMS, by TMB.

Those challenges make company always empower the resources it has including the human resources. The company management in long term mapping in organization and human resources department stated that the company paid attention highly on dynamic and flexible organization, with high learning skill in each of its employee and companies. The long term plan of this company means a process to empower the human resource that is scoped in work units as a work team.

A work team in a company can be defined as a group of people that interacts each other, psychologically has connection feeling one another and work together as group (Schein 2004). Just like an individual performance, performance of work team also has a very significant role in a company's improvement. Team performance is a main determining factor and oftenly used as company's success indicator. (Stashevsky and Koslowsky 2006). There are many factors that can affect team performance, such as organization culture (Senior and Swailes 2004) and leadership style (Miles and Mangold 2002, Stashevsky and Koslowsky 2006).

Company's management realizes the effect of company's culture and leadership toward team performance. Therefore company also has improvement programs for these two factors in its long term plan mapping. Leadership has a significant role because a leader is a function of management, that can effect employees in working so that organization's aim can be achieved (Skansi 2000). There are many leadership theories but according to Hersey and Blanchard (1999) stated that there was no leadership style that went along with all condition in an organization but leadership style would be very effective if it could accomodate its surroundings (followers, superior, and colleague).

One of leadership that accommodates surroundings is collaborative leadership. Collaborative leadership is formed under the effort of Carnagie Commision on Preventing Deadly Conflict. This commission states that the strategy that is used in a leadership and the decision making process are very crucial in every conditions to face every problems (Hamburg, George and Ballentine 1999).

Organization culture gives influences on team performance through work satisfactory forming process and commitment on organization. Deal and Kennedy (2000) inferred that organization culture can be used to affect certain important factors in organization such as commitment and performance. It is strengthened by a research conducted by Lok and Crawford (2004) that showed that organization culture has a very

significant impact towards work satisfactory and commitment to organization.

This research aims to help company in formulating sub factors of collaborative leadership and also the type of company's culture that is proper to be developed in PT. Jasa Marga. The indicator of influence of these two factors toward team performance is becoming a standard in giving recommendation of collaborative leadership's sub factor and company culture's type that are supposed to be developed by company. Team performance itself is a function of work role completion based on Belbin (1993).

This research contributes to 'the renewal' of agent based approach. Until now the researches about behavior are still dominant with linier approaches, in which that values or individual behavior is assumed to be constant even though that individual interacts with other individuals. The work systems that involve behavior pattern are complex systems and able to change once it interacts with other individual behavior pattern. The function of this complexity study is to explain on how this interaction occurs relatively stable and to explain the happening pattern (Srblijinovic and Skunca 2003). Agent based modeling (ABM) is found in some researches for example to estimate cellular operator market due to the change of marketing strategy (Putro et al 2009), strategy compiling to prevent avian influenza in Bandung (Putro et al 2008), etc. So far the modeling of agent based modeling that is connected team performance has not been found.

This research is focusing on the development of agent based modeling with the research's questions as follows:

- 1) How is agent based model that can accommodate work role change to every agent in a certain work team?
- 2) What are the sub-factors of collaborative leadership that are prioritized to be developed in company's management based on that agent based modeling?
- 3) What is the type of company's culture that is prioritized to be developed I

company based on that agent based modeling?

2. Research Methodology

Formulating agent based model becomes an initial step in this research. Then every variable in the model is elaborated according to the theoretical base and derived to be a questioner as a tool to gain data from respondent. Based on personal values, the respondent is classified using Factor Analysis Method to be group of agents and inter-agent interactions in a certain environment compiled in programming algorithm form. In the end computer programming using NETLOGO software will be made, sensitivity test is conducted and simulation scenario is resumed to answer the research's questions.

2.1. Agent Based Model Formulation

Bonabeau (2006) stated that agent based modeling was the simulation technique to solve the real world business problems by modeling that system as a group of entities that can make decision which is called agent. So, in ABM method it is not the model that solves the problems but the agents in the model that will solve the facing problems. Axelroad (2003) explained that ABM was a method to study a certain system that consists of agents which interact each other and induce new nature due to the interaction.

The main focus in the ABM approach is the nature or property of individual agent. Bonabeau (2006) categorized agent as any components that stand alone (software, model, INDIVIDU, etc). Referring to Casti (1997) in Permadi (2009), agent is component that has basic rule and more advance rule. The basic rule is behavioral rule as a response towards its environment, and the more advance rule is the rule to change the rules, which is the rule to conduct adaptation. Jennings (2000) stated that the main characteristic of agent is autonomy, which is the behavior that makes agent able to make its own decision, based on its rules.

Agent based model formulation is a major focus in this research. The agent based model is given in this following Figure 1.

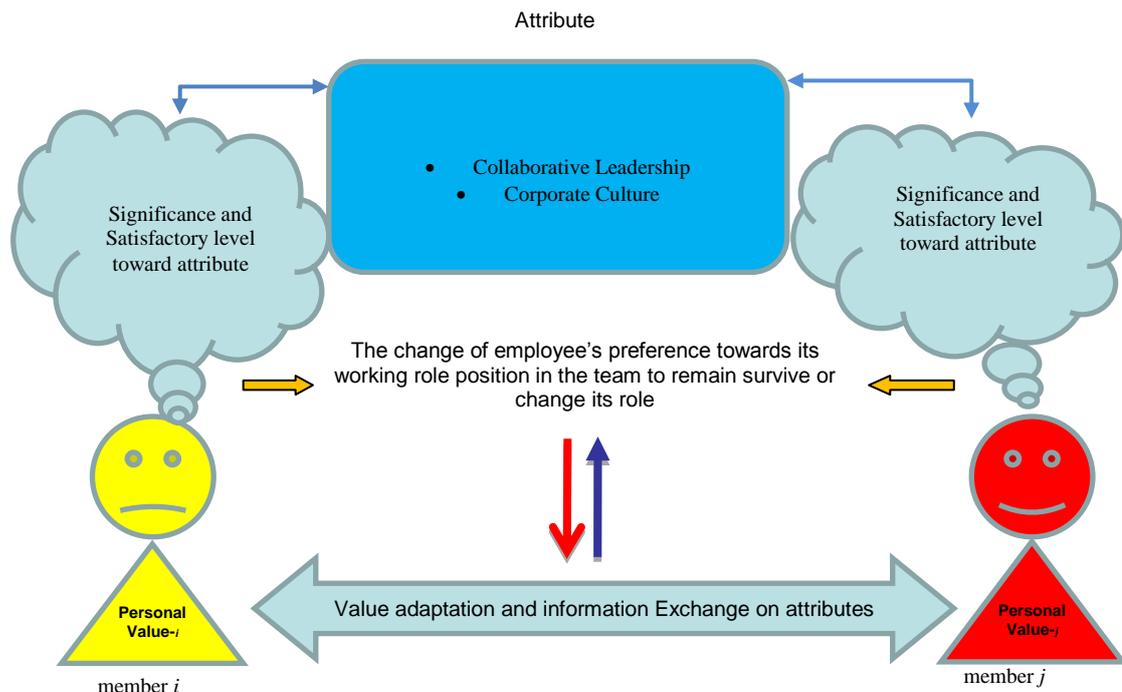


Figure 1. Agent based team performance model
(Source: adopted and developed from Putro et al 2009)

Two factors that affect team performance, leadership and organization culture, can be perceived differently by each employee due to the characteristic of each personal value. For example, an employee with power distance as personal value will consider that sharing power and influence dividing factor in collaborative leadership is a dominant factor in his/her leadership process. Inter agent interaction will cause information exchange and possibly change each perception towards the significance level of collaborative leadership sub factor and the type of company's culture. This significance level change in the end will also alter their work role position in the team which also means a change in team performance.

2.2. Research Variables

In the team performance improvement this research considers three variables, which are personal values, collaborative leadership, and the type of company culture. The research conducted by Gustomo et al (2010) shows that in the context of PT. Jasa Marga, out of twelve variables of personal values that are the combination of Hofstede (2005) and Trompenars et al (2000) personal

values, only four variables that give significant influence to enhance team performance. The four variables are power distance, internal - external control, uncertainty avoidance, and neutral - affective.

Company culture variable takes the types of company culture according to Cameron and Quinn (1999) who divide it into four types, which are clan, adhocracy, market, and hierarchy. While the collaborative leadership variable covers six process steps which are assessing the environment, creating clarity, building trust, sharing power and influence, developing people, and self reflection.

2.3. Sampling Method

The research is located in Surabaya Branch Office, Padaleunyi (Bandung) Branch Office, Jagorawi (Jakarta) Branch Office, Cikampek (Jakarta) Branch Office, Balmera (Medan) Branch Office, Palikanci (Cirebon) Branch Office and Central Office (Jakarta). These locations are chosen so that it can represent company's branch office (branch office typ A and B), and also accommodate environment diversity and the culture of local community (location).

3. Data and Analysis

3.1. The Formulation and Characteristic of Agent

The data collecting was conducted in the time period of July 2010 until February 2011. Out of 500 spreading questionnaire, 257 was obtained back. Using Factor Analysis Method (Principal Component Analysis) on personal values, the employees of PT Jasa Marga can be classified into three category with the composition is shown in the following Figure 2. In the context of agent based modeling then this three groups are called as agent.

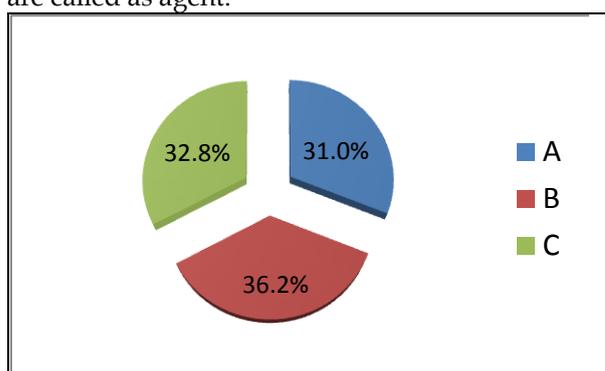


Figure 2. Composition of Agent

Generally it can be stated that based on the three groups of agent, the employees of PT. Jasa Marga have these following characteristics:

- Having moderate to high power distance. It means the characteristics of company's employees are accepting and considering the difference of power and status in the company quite much.
- Having dominantly moderate to high uncertainty avoidance (UA). It shows that most of the company's employees are in the comfort zone, characterized as not having the vision of changing the situation or business of company in the future.

While the special characteristics that differentiate each agent are as follow:

Agent A:

- Tending to have good self control skill (Neutral), tend to not showing their emotions.
- Showing the balance between internal and external control. It shows that employee who is included in this agent A tend to have balance between focus on themselves and others (customer and colleague).

Agent B:

- Having balance between neutral-affective characteristics. Employees in this group tend to have moderate emotion, meaning it is between impressive - expressive characteristics (not too explosive and not also keeping it inside).
- Tending to be dominant in external control. Employees in this agent B tend to keep the working relationship in harmony and being flexible and compromising in behavior.

Agent C:

- Tending to easily show their emotions (affective). Employees in this group tend to convey a statement clearly and strictly.
- Tending to be dominant in external control.

3.2. Algorithm Formulation and Scenario Simulation

This simulation aims to describe work role level that will be formed as a result of inter-agent interaction and each satisfactory and significance level of perception values towards the factors of collaborative leadership and the type of company culture. Agents in this context are agent A, B, and C proportionate with their own characteristics. Simulation algorithm is compiled with flow as in this following Figure 3.

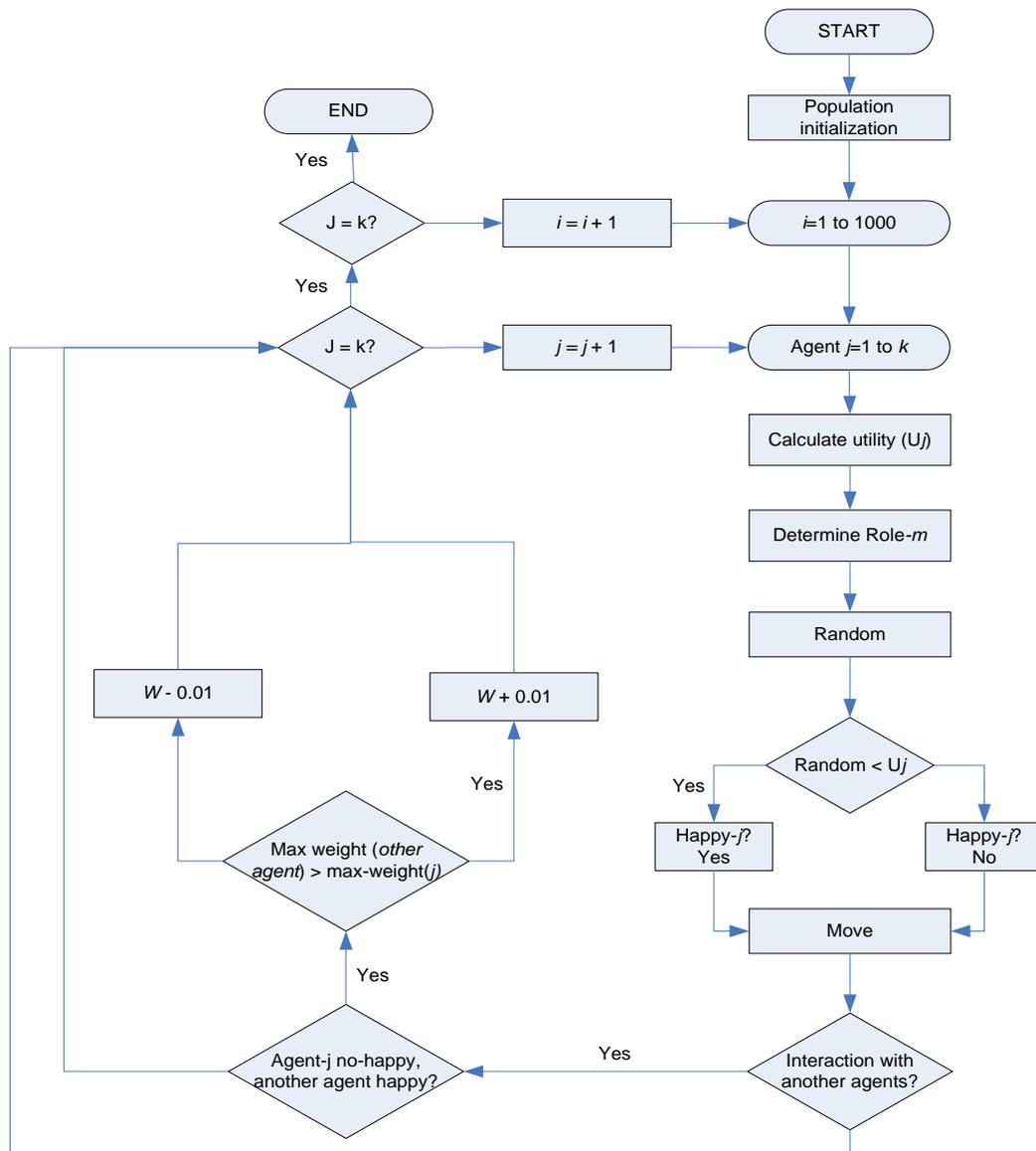


Figure 3 The flow chart of simulation algorithm

In each iteration agent will calculate the utility values they have. This utility value is obtained by multiplying each significance level on every collaborative leadership's sub-factor and also the significance level of corporate culture's type with each of its own satisfactory level. The obtained score is then being saved in matrix-score.

The calculation of utility value for agent-j is formulated as follows:

$$U_j = \frac{\sum_{k=1}^6 X_{Lk} w_{Lk} + \sum_{k=1}^4 X_{Bp} w_{Bp}}{200}$$

With :

U_j = Utility of agent-j
 X_{Lk} = Perception of satisfactory level of agent-j towards the k-th factor of collaborative

| | | |
|----------|---|--|
| w_{Lk} | = | leadership Perception of significance level of agent _j towards the k-th factor of collaborative leadership |
| X_{Bp} | = | Perception of satisfactory level of agent _j towards k-th factor of company culture |
| w_{Bp} | = | Perception of significance level of agent _j towards the k-th factor of company culture |

Inter-agent interaction is possible to happen with probability of 10% that cause the information exchange of each attribute's significance level. In this interaction process there are four probabilities of events as in this following Figure 4.

| | | | |
|--------------------|--------------------|----------------------------------|------------|
| | Agent _j | | |
| Agent _i | | Happy | No-happy |
| | Happy | Do nothing | Do nothing |
| | No-happy | Browse and interpret Information | Do nothing |

Figure 4. Process of information exchange among agent

In this process agent will look for its matrix-score element whose score is getting smaller. This element is assumed to be a factor considered by the least satisfying agent. Then this agent will check the weight of its neighbor in the conformity element. If the weight that is given by its neighbor is higher than the weight the agent owns, then agent will increase its weight in the number of 0.01. in the contrary if the weight owned by neighbor is smaller, then agent will decrease the weight it gives in the number of 0.01. To keep the total of weight owned by each agent has the value of 1, then the normalization process is being done by each agent after its interaction is finished. In every iteration, the value of utility of each agent will be put under linear regression into the value on each role taken by the agent.

In order to help implementing the desired model into computer language, the available ABM platform can be used. There are several types of platforms that have been developed and can be used freely, one of it is NETLOGO. Netlogo is a platform that can be run in various computer operation system. This platform was firstly developed by Uri Wilenski from Northwestern

University USA in 1999, and up until now is still being developed by Center for Connected Learning (CCL) and Computer-Based Modelling Northwestern University USA. Netlogo was made in purpose of simple usage. Netlogo programme involves more advance level language programmes in a purpose of that previous simple usage, and it does not need the knowledge of computer programing as in Repast, Swarm, and Mason platforms.

Netlogo is also completed with highly complete document and also the examples of variative and informative makings of ABM model. Being seen from documentary point of view, Netlogo is a platform with the most complete documentation. Netlogo is aimed to the user whose computer programming knowledge is not so deep. Netlogo gives a very proper platform for non-programmer to model the agent based system into computer language

3.3. Sensitivity Test of Algorithm and Programming

The scenario in sensitivity test is conducted by changing the value of satisfactory attribute in collaborative leadership and company culture and seeing the result or the difference on the value of

work role. The result of sensitivity test shows that the algorithm and simulation program is sensitive already towards the changes of the attribute of satisfactory level towards collaborative leadership and company culture. The scenario of satisfactory level changes on the factors of collaborative leadership and the type of company culture also shows significant change towards the total value of performance in a certain work unit.

3.4. *The Analysis of Variable's Significance Level and The Result of Scenario of Modeling Simulation*

The perception of all employees towards the significance level for very factor in collaborative leadership to show whether there is a certain domination of perception towards one or some certain factor(s). The test using ANOVA is conducted with following hypothesis:

H₀: All leadership factor has the same average of significance level according to agent

H₁: At least there is one leadership factor that has different average of significance level according to all agents

The result of ANOVA test shows that due to the significant level that is less than 0.05, then it can be concluded to refuse hypothesis zero (H₀) and it is to be concluded that at least there is one leadership factor that has different average of significance level according to agents. Therefore the test is continued by looking for that different or similar factor by using Duncan's Multiple Range Test. The result of the test shows that according to the employees:

1. The biggest significance level that has to be developed in the company in the context of collaborative is 'creating clarity', with the weight of 25%. It means that the company's management should be able to translate the vision of the company into work unit's programs well enough and create a good condition of working environment so that every employee can express the opinion on strategic issues and the actions that need to be taken.

2. The second biggest significance level is 'building trust' with the weight of 21.43%. it means the company's management should be able to build a good communication process so that every employee can express their own opinions. In addition it also means that company's management is expected to be able to create the open minded and trusting nuance in the cooperation process among the employee.
3. The third significance level is 'assessing environment' with the weight of 15.85%, and then followed by two factors that are considered significantly indifferent which are 'developing people' and 'share power'. The last significance level according to the employee's perception is 'self reflection' with the weight of 9.73%.

The two biggest weights in the significance level of leadership factor, 'creating clarity' and 'building trust', go along with the dominant type of employee's personal characteristics, which are the high 'power distance' and 'uncertainty avoidance'. It means that they highly expect the leaders of the company to explain every program in details operationally and do not dare to make dramatically changes in the working program or company's business. This characteristic is supported by the working pattern especially in the branch office that is more likely to operation the management conduct of highway collecting and daily highway traffic management.

An interesting result is also shown by the measurement of each satisfactory level of collaborative leadership factor by the agents and employees. The employees give a whole adjudication is just in the level of **satisfied enough** and not significantly different to all factor of collaborative leadership. The two results of satisfactory and significance level toward this collaborative leadership's variable show that the company should start developing the conceptual thinking skill, which is the company's strategy in the future, and pushing down and also conveying the strategic idea from and to all company's employees.

While based on the agent's perceptions for the significance level of the type of company culture shows that:

1. The biggest significance level that has to be improved in the company in the context of the type of working unit culture is the 'market' type, with the weight of 28.9%, it means the company's management should be able to develop a certain competitive working program with high target and every employee and working unit is obliged to achieve the target with the perfect result. The company's management should also focus and aggressively on achieving its working target and developing competitive pattern in that achievement progress.
2. The second biggest significance level are the type of 'adhocracy' and 'clan' with not too significantly different weight of 25%. It means that dominantly employees consider that the company also needs to develop the working situation that is possible to share each other, human development oriented, and the decision making is involving everyone. Those things are brought together with the balance in making dynamics so that the employees dare to take risk to conduct creative and innovative act and decision.
3. The last significance level is 'hierarchy', with the weight of 20.3%. This type of culture means the company should also habituate each working program to be conducted efficiently with a strict control

along with the constituted formal procedure.

In the next step the agent based simulation is conducted for a further analysis whether the cause of the interaction and information exchange inter agent can also give the same conclusive description. Simulation scenario is arranged to see how far the change of satisfactory level towards the attributes of collaborative leadership and company culture affect the team performance. A certain combination set of this satisfactory level change is done with certain rules of:

1. The agent is satisfied with only one certain attribute, characterized by the scoring of satisfactory level in above 80 (in this case it is set at 90) and not satisfied with the other attributes characterized by the scoring of satisfactory level under 50 (in this case it is set at 20).
2. The agent is satisfied enough with all the collaborative leadership attributes (score 70), but only satisfied with only one type of company culture.
3. The agent is satisfied with two attributes of collaborative leadership and satisfied with one attribute of company culture's type, and satisfied enough with one attribute of company culture's type.

For every scenario it is arranged so that it has the combination of the total number of member in the working unit from various alternative of agents. Some results of the simulation are shown in the following Figure 5.

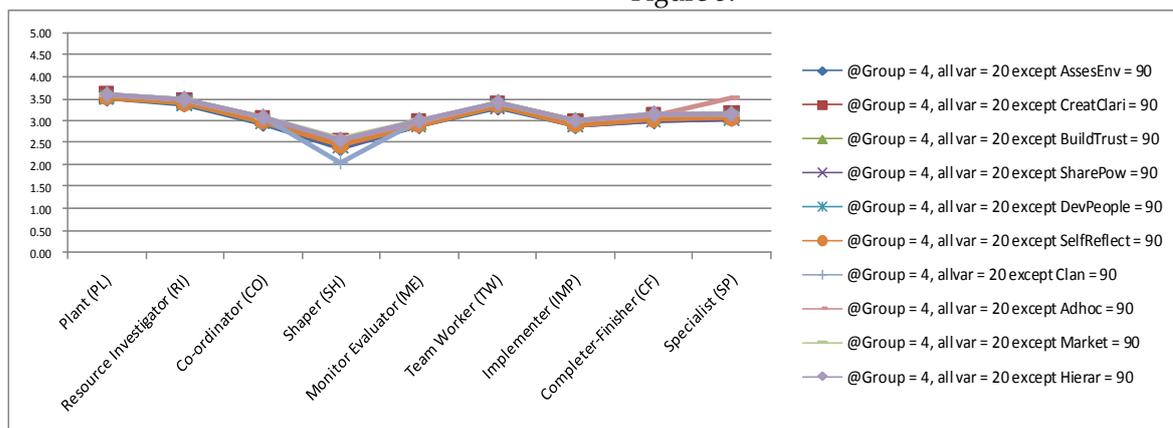


Figure 5. The outer of the average agent's working role in every simulation scenario

The results of programming simulation shows that all simulation scenarios give the increase of satisfactory perception on each attribute of collaborative leadership and or company culture's type gives the well distributed result. The hypothesis test using Analysis of Variance (ANOVA) proves that the influence of each attribute of collaborative leadership towards team performance is not significantly different. Same case also happens in the influence of each type of company culture, it also does not give significant influence on team performance.

Several things that cause no difference in the influence of each collaborative leadership factor is explained as follows:

1. Even though there is difference in significance level among collaborative leadership factor in total, the distribution of this significance level difference is well distributed among agent A, B, and C.
2. While the results of significance level towards collaborative leadership factor shows no difference from each factor for the current condition in the company.
3. A well distributed significance level of perception in agent A, B, and C will cause a certain mechanism for every member of the group to obtain information in order to maximize its utility level.
4. It causes the uniformity in the final utility value of each member, so that the influence of each factor will eventually be similar towards team performance.

The managerial implication of this analysis means that the company should give the same priority in developing each collaborative leadership sub-factors in order to achieve optimal result in the increase of team performance. The management should proportionally develop its skill in assessing the environment, creating clarity, building trust, sharing power and influence, developing people, and self reflection in the company's leadership.

As for the influence of company culture's type, several issues that cause no difference in the influence of each company culture's type are being explained as follow:

1. Even though in total there is difference in the significance level among company culture's types, the distribution of this significance level difference is well distributed among agent A, B, and C.
2. While the results of satisfactory level towards the corporate culture type shows no difference from each factor for the current condition in the company.
3. A well distributed significance level of perception in agent A, B, and C will cause a certain mechanism for every member of the group to obtain information in order to maximize its utility level.
4. It causes the uniformity in the final utility value of each member, so that the influence of each company culture's type will eventually be similar towards team performance

The managerial implication of this analysis means that the company should give the balance in the development of each company culture's type in order to achieve optimal result in the increase of team performance.

4. Conclusion

According to the aims of this research, several conclusions can be obtained, such as:

1. Agent based model is able to show the changes of each agent's working role due to the interaction and information exchange among agents towards the significance level of each sub-factor of collaborative leadership and also the types of company culture.
2. PT. Jasa Marga should give the similar priority in developing each sub-factor of collaborative leadership in order to obtain the optimal result in the increase of the team performance. The

- management should proportionally develop its skill in:
- ✓ Assessing the environment: the efforts in digging the information and data from various trustworthy sources before making certain decisions or actions, and able to support subordinates to act based on the information obtained compared to the assumptions.
 - ✓ Creating clarity: visioning and mobilizing; the good ability to translate the company's vision into work programs, and to create a condition of work environment so that every employee can opionate about strategic things and the actions that need to be taken.
 - ✓ Building trust: the ability to build a good communication process so that everyone feels comfortable to opionate their own opinions and also able to build the nuance of open minded and trusting each other in cooperation process among employees and the conductor of working activities.
 - ✓ Sharing power and influence: the ability to give authorities to take actions and decisions to their subordinates in balance, and also able to support and influence others to be able to set their minds in making decisions and taking actions.
 - ✓ Developing people: the ability to give chances to subordinate to develop and study the new skills and knowledge, and also able to arrange and implement the self development plan of each of the subordinate.
 - ✓ Self-reflection: the willingness to listen to the suggestions and criticism from others, and actively find for feedbacks from all subordinates about his own behavior and action in undergoing the work programs.
3. PT. Jasa Marga should also provide the proportional in developing each type of company culture in order to obtain the optimal result in the increase of the team performance. Culture should proportionally develop its values in:
- ✓ Clan: to share each other, orientating in personal development and the decision making that involves everyone and based on everyone's agreement.
 - ✓ Market: the courage of taking a risk to conduct the decision and the creative and innovative actions (dare to try new things)
 - ✓ Adhocracy: a competitive work program with the high target and always successful in achieving the work result perfectly, going along with the set target.
 - ✓ Hierarchy: to prioritize efficiency with strict control based on current formal procedure

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The Influence of Learning System and Learning Environment toward Psychological Capital and GPA of Management ITB Students

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Abstract

Positive Psychological Capital (Psy-Cap) as one of the soft skill has been explored in the academic context of its relationship with the Grade Point Average (GPA) as the student performance result by Tjakraatmadja and Febriansyah (2007). The findings conclude that Psy-Cap factors are positive-significant influence to the student of School of Business and Management, Bandung Institute of Technology (SBM-ITB) GPA. This research observes the influence of learning system and learning environment toward the Psy-Cap and GPA of SBM-ITB students and tries to find the solution of the implications. The research was conducted by designing conceptual model, using path analysis method, and using quantitative data through questionnaire. The results found that learning system has positive influences toward learning environment and Psy-Cap. But learning environment does not influence Psy-Cap and GPA; Psy-Cap also does not influence GPA, it means that SBM-ITB students GPA more reflect cognitive quality (hard skills). The respondents profiles which are researched are come from 2011 and 2012 SBM-ITB graduated this will be the snap shot to fulfill the research purpose. For SBM ITB, initiatives should be taken to improve their conditions about learning system and learning environment. Leadership skill from Hay Group should be implemented to improve Psy-Cap and its influence toward GPA. Learning system as the new construct completing previous research model of Tjakraatmadja and Febriansyah (2007), become the originality of this research.

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I. INTRODUCTION

A. Background

SBM-ITB has a vision to create entrepreneurial leaders, therefore SBM-ITB design learning system and learning environment that will be very useful to achieve its vision. With a curriculum that will be created SBM learning environment which will give positive impact to the students SBM. This research will examine the relationship influence the learning system and learning environment in the SBM to the development of psychological capital and GPA. In this era, Psy-Cap factors become interesting because someone can compete with the others based on his or her behaviour.

The author chooses Psy-Cap because Psy-Cap, as a factor of soft skill, can be changed. Moreover to be a leader, a leader has to able to influence the other people. With Psy-Cap factors, a leader can know what things can be influenced and changed the personality of people around.

Psy-Cap, as in [2], has been defined as "an individual's positive psychological state of development and is characterized by: self efficacy, optimism, hope, and resilience. In Indonesia, Psy-Cap has been explored in the business, as in [1], and the academic context of its relationship with the student achievement index (GPA), as in [2]. The research found that Psy-Cap factors (hope state, optimism state, resiliency state, and self efficacy) are positive-significant influence to the student of School of Business and Management ITB (SBM-ITB) GPA index.

B. Research Questions

There are 2 research questions that should be answered through this research:

1. Are there any influence relationship among learning system, learning environment, Psy-Cap and GPA?
2. How could SBM create learning environment and learning system improvement that can improve alumnus competency formation that is targeted effectively?

C. Research Objective

Given previous research, this final project research is a continuation study (longitudinal study) to examine the phenomenon of re-learning system in SBM by comparing the response of the previous SBM students, 2011 and 2012 graduated. The benefit of this research is a self review or self improvement of the condition of SBM learning system.

D. Research Advantage

In this study several parties such as students and SBM/University can take advantage of:

1. Students
Students are able to improve the quality of his/her behaviour that is consistent with a high GPA. So that they can get "capital" to give contribution to the broad community after they graduate.
2. SBM
To check the quality of education in the SBM that is better than in the previous period. In order to SBM can improve the quality of the SBM graduates, so they have a personality that corresponds to a high GPA.
3. University Education
Notice the value of personality development of students, so that it is not just concern only on technical skills development.

II. METHODOLOGY

A. Sample

The respondents of this research are SBM-ITB students 2008 and 2009 intakes. Questionnaires are spread using random sampling method, valid sample is 105, this valid sample is sufficient, as in [4] sample required for number population around 400 is 92 ($\alpha = 0.05$), the number of collected and valid questionnaires can be seen at Table 1.

TABLE 1
NUMBER OF QUESTIONNAIRES

| Questionnaire | | Sample | Population |
|---------------|--------------|--------|------------|
| Collected | | 130 | |
| | 2008 Intakes | 68 | 169 |
| Valid | 2009 Intakes | 37 | 168 |
| Total | | 105 | 337 |

B. Measurement

Larry K. Michaelsen (2002), as in [5], introduce Team based learning, a method which divide group activities and tasks into small class and such method is very effective in helping college students learn how to implement these concepts. This explains that in order to improve college students' personality then a system is made. Then explanation by Nightingale (1994), as in [6], the principles to increase the high quality learning are (1) give sense and value as intellectual improvement (2) build environment (physical and social) to support college student learning result (maximize the studying comfort). At this point learning system will influence the college students learning environment and Psy-Cap.

Explanation by Prosser (1999), as in [7], Teachers should provide students with a learning environment in which the learning context facilitates students' understanding and construction of new knowledge. Then explanation by Joyce (1996), as in [8], Successful teachers teaches students how to engage in robust cognitive and social tasks and teach students how to use these tasks productively. This related that learning environment influence Psy-Cap and GPA, and Psy-Cap can influence GPA.

Based on the literatures conclusion above, following is the research model that is used:

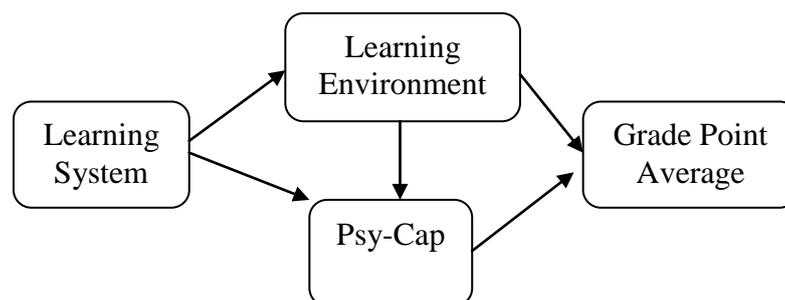


Fig. 1 Research Model

Data results are presented in the form of diagram that is analyzed for its cause-effect correlation so that will get a conclusion. In analyzing data, writer use some analysis method which are descriptive analysis and path analysis. In descriptive analysis there are some factor that will be observed that can be seen at Table 2.

TABLE 2
CONSTRUCT AND FACTOR

| Construct | No. | Factor |
|------------------------------------|-----|--------------------------------------|
| Learning Environment (X1) | 1 | Experience with Lecturers and Tutor |
| | 2 | The intimate with college student |
| | 3 | SBM library |
| | 4 | SBM Computer Room |
| | 5 | SBM Class Facility |
| | 6 | Kresna securities and student lounge |
| | 7 | ITB college facility |
| | 8 | Organization |
| | 9 | Art, music, and theater |
| Learning System (X2) | 1 | Learning method |
| | 2 | Learning evaluation method |
| | 3 | Lectures |
| Psychological Capital (Psy-cap=X3) | 1 | Hope state |
| | 2 | Optimism state |
| | 3 | Resiliency state |
| | 4 | Self efficacy |

Before doing the research, first thing that is done is test the validity of questionnaire. The validity show how far the question relevance on what is asked or what is want to be measured in the research. The questionnaire validity level is measured based on the validity coefficient which in this point using correlation coefficient of corrected total item. Based on Kaplan, as in [9], a question is valid and can measure research variable if the validity of coefficient value is more than or equal to 0,3.

The reliability show how far the level of measurement consistency from one respondent to other respondent or in other words how far the question can be understood so that don't cause any different interpretation in understanding that question. Item validity and reliability decision is using following criteria, as in [9]:

1. Item is stated valid if the validity coefficient more or equal to 0.3.
2. Item group in a dimension is stated reliable if the reliability coefficient is not more than 0.7.

Before distributing to respondents, the questionnaire was tested for validity and reliability. To test the sample, initial questionnaire are distributed to some respondents as a trial, minimum 30 respondents, then to test the validity and reliability, questionnaire are tested trough SPSS 18.0 program. After getting 105

respondents, the questionnaire are tested for its validity and reliability. The result of questions validity are following:

TABLE 3
THE RESULT OF QUESTIONNAIRE VALIDITY

| Correlations | | | | |
|----------------------|---------------------|----------------------|-----------------|---------|
| | | Learning Environment | Learning System | Psy-Cap |
| Learning Environment | Pearson Correlation | 1 | ,631** | ,429** |
| | Sig. (2-tailed) | | ,000 | ,000 |
| | N | 105 | 105 | 105 |
| Learning System | Pearson Correlation | ,631** | 1 | ,497** |
| | Sig. (2-tailed) | ,000 | | ,000 |
| | N | 105 | 105 | 105 |
| Psy-Cap | Pearson Correlation | ,429** | ,497** | 1 |
| | Sig. (2-tailed) | ,000 | ,000 | |
| | N | 105 | 105 | 105 |

** . Correlation is significant at the 0.01 level (2-tailed).

The result of question's reliability can be seen at Table 4.

TABLE 4
THE RESULT OF QUESTIONNAIRE RELIABILITY

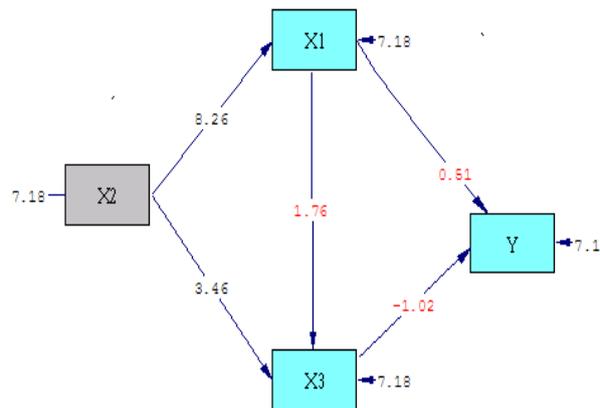
| No. | Factors | Cronbach's Alpha |
|-----|--------------------------------------|------------------|
| 1 | Experience with lecturer and tutor | 0.765 |
| 2 | The intimate with college student | 0.807 |
| 3 | SBM library | 0.822 |
| 4 | SBM Computer Room | 0.778 |
| 5 | SBM Class Facility | 0.736 |
| 6 | Kresna securities and student lounge | 0.762 |
| 7 | ITB college facility | 0.771 |
| 8 | Organization | 0.838 |
| 9 | Art, music, and theater | 0.82 |
| 10 | Study method | 0.746 |
| 11 | Study evaluation method | 0.796 |
| 12 | Lectures | 0.806 |
| 13 | Hope state | 0.791 |
| 14 | Optimism state | 0.761 |

| No. | Factors | Cronbach's Alpha |
|-----|------------------|------------------|
| 15 | Resiliency state | 0.767 |
| 16 | Self efficacy | 0.815 |

III. RESULTS AND ANALYSIS

The goal of path analysis is to explain the direct and indirect influence of several variables as causes of variables, to some other variable as a variable result or effects. In this purpose, researchers look for the

significance of the research model using path analysis. Apparently after using SPSS 18.0 and LISREL based on existing data, the results of the significance of the path diagram is as follows:



Chi-Square=0.39, df=1, P-value=0.53468, RMSEA=0.000

Fig. 2 Path Analysis Result - T Values

From the path analysis result we can conclude: learning system (X2) has positive influences toward learning environment (X1) and Psy-Cap (X3). But then, the learning environment does not influence

Psy-Cap and GPA; Psy-Cap also does not influence GPA (Y). If compared with current research, there are few things that have changed in last 3 years.

TABLE 5
TABLE COMPARISON RESEARCH

| RESEARCH 2007 | RESEARCH 2011 |
|---|---|
| GPA is influenced by Psychology Capital | GPA is not influenced by Psychology Capital |
| GPA is influenced by learning environment | GPA is not influenced by learning environment |

First, previous research showed that GPA (Y) is influenced by psychology capital however current research has no influence at all. It means that the GPA value can not assess the college student psychology capital. It can be that GPA based only on

cognitive value where the value can come from task, exam, and other academic activities. However things that associated with college student personality improvement has not been concerned anymore. In order to development of Psy-

Cap accordance with GPA, It is better if SBM has a system to make 2 (two) different reports, intellectual report (GPA) and Psy Cap report. So, lecturers can more

objectively evaluate students, namely academic and Psy-Cap.

TABLE 6
THE PURPOSES OF 2 (TWO) DIFFERENT REPORTS

| Score in two different reports | Purposes |
|------------------------------------|--|
| Psy-Cap Reports | <ul style="list-style-type: none"> - SBM can monitor development of student's Psy-Cap. - Students can know their personality. - Give feedback about student's attitude for student's parents |
| Academic/Intellectual Report (GPA) | <ul style="list-style-type: none"> - Students can evaluate their learning development in campus. - Evaluation for student's parents in learning development of students. - Reference value of academic. |

Not only Psy-Cap but also other skills are needed in order to achieve SBM vision. SBM has the vision that the graduate student will become leaders in the future, so

appropriate leadership skill (see Table 7) from Hay Group [10] will be embedded skill in each SBM's courses.

TABLE 7
HAY'S LEADERSHIP SKILL

| Hay's Leadership Skill | No | Skill |
|-------------------------|----|--------------------------|
| Self Awareness | 1 | Emotional Self Awareness |
| Self Management | 2 | Achievement Orientation |
| | 3 | Adaptability |
| | 4 | Emotional Self Control |
| | 5 | Positive Outlook |
| Social Awareness | 6 | Empathy |
| | 7 | Organizational Awareness |
| Relationship Management | 8 | Conflict Management |
| | 9 | Coach and Mentoring |
| | 10 | Influence |
| | 11 | Inspirational Leadership |
| | 12 | Teamwork |

The framework of the soft skill for SBM-ITB can be seen at Figure 3. In order to deliver all of the soft skill SBM needs to analyze appropriate learning method and

learning evaluation for each course. The proposed learning method and learning evaluation can be seen at Table 8.

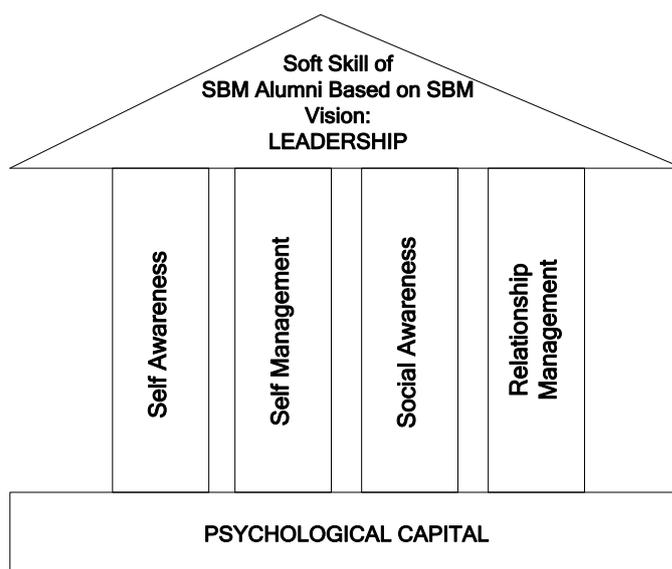


Fig. 3 Framework of SBM Soft Skill Learning System

TABLE 8
PROPOSED LEARNING METHOD AND LEARNING EVALUATION OF SBM SOFT SKILL LEARNING SYSTEM

| Learning Method | Learning Evaluation |
|---|-----------------------------------|
| 1 Lecturing in Auditorium | 1 Mid Test |
| 2 Studium Generale in Auditorium | 2 Final Test |
| 3 Guest Lecturing in Auditorium | 3 Undergraduate Final Examination |
| 4 Practicum | 4 Readiness Assessment Test (RAT) |
| 5 Self Learning | 5 Peer review |
| 6 Task | 6 Quiz |
| 7 Company Visit | 7 Individual Participation |
| 8 Internship | 8 Presentation |
| 9 Discussion Group at Tutorial | 9 Group/Class Project Scoring |
| 10 Class Presentation | 10 Task Scoring |
| 11 Case Study | |
| 12 Study Exercise | |
| 13 Role Play | |
| 14 Business Simulation | |
| 15 IBE (Integrated Business Experience) | |
| 16 Community services | |
| 17 Sharing Session | |
| 18 Group Competition | |

For example, Table 9 show learning method and learning evaluation design for "Introduction to Science of Management and Business" course. Appropriate Hay's

leadership skill, learning method and learning evaluation for the course is designed through Focus Group Discussion

(FGD) with the associate sub interest group in SBM.

TABLE 9
LEARNING METHOD AND LEARNING EVALUATION DESIGN EXAMPLE

| Course | Semester #; Credit | Psy-Cap | Hay's Leadership Skill | Learning Method | Learning Evaluation |
|--|-----------------------|---|------------------------------|---|-----------------------------|
| Introduction to Science of Management and Business | 1 (4 credit) | 1. Hope, 2. Optimism, 3. Resiliency, 4. Self Efficacy. | Emotional Self Awareness | Sharing Session | Individual Participation |
| | | | Achievement Orientation | Business Simulation, Group Competition | Group Project Scoring |
| | | | Organizational Awareness | Task, Company Visit | Task Scoring |
| | | | Conflict Management | Business Simulation | Group Project Scoring |
| | | | Influence | | |
| Teamwork | | | | | |

Second, on previous research, GPA was influenced by learning environment, but now GPA is not influenced by learning environment. Now, the value of GPA that SBM student have, is not influenced by

learning environment. Therefore, it is needed for further analysis of the quality of factors that cause comes from the learning environment.

TABLE 10
FACTS AND SOLUTIONS FOR LEARNING ENVIRONMENT

| Factor | Facts and Conditions | Solution |
|--|--|--|
| Library | <ul style="list-style-type: none"> - SBM students less to use library. - Monotonous atmosphere: <ul style="list-style-type: none"> a. Not allowed to eat and drink. b. Prohibited to make discussion noisily. | <ul style="list-style-type: none"> - Allow to bring snacks (snack) to the library but the students have to maintain the cleanliness and neatness. - Outdoor facility, which students can be allowed to bring and read the books out of the library such as in Student lounge and SBM's tends. With a facility like this is also recommended for strict in lending books to students. - Give a discussion arena in library. - Give multimedia facility. There is a shelf that contains the DVD and props that support lectures. |
| Kresna Sekuritas and Student Lounge (SL) | <ul style="list-style-type: none"> - There is no simulation to learning process in capital market - SBM students seldom to use SL to organization and lecturing activities. | <ul style="list-style-type: none"> - Entering capital market curriculum in SBM. - Providing simulation program in capital market learning. - Add long table in order to be used for discussion in SL. - Design the interior of SL for organization. |

| Factor | Facts and Conditions | Solution |
|-----------------------|---|--|
| ITB Campus Facilities | <ul style="list-style-type: none"> - SBM students seldom to use ITB facilities such as saraga and campus center. - The location of campus center is far enough from SBM building. | <ul style="list-style-type: none"> - With a purpose, SBM students can get many knowledge, SBM can use lecturing classes in ITB once a while. - Add curriculum for sport. It aims to improve the physical fitness of students SBM. |
| Auditorium Class | <ul style="list-style-type: none"> - Many lecturers one ways communication. - Class is wide enough. | <ul style="list-style-type: none"> - Lecturers have creativity to make 2 ways communication with students. - In auditorium, lecturers give some time to students to make small discussion groups in order to students can be understand for the lecturing. |
| Lecturing Activity | <ul style="list-style-type: none"> - Many students who are not active in class. - Many students who seldom to review the course material. - RAT and quiz are less regarded by students as a method of evaluation for learning. | <ul style="list-style-type: none"> - Cooperation between active friends, to help his friend for more advanced. - Given the task and the announcement of the quiz / RAT to repeat the course material continuously. |

To improve learning environment, it is better to also improve learning system because it is related each other. Finally, lecture itself which should be improved as students and student's diligently. This will affect the experience of lecturers/tutor and intimates the SBM students.

IV. CONCLUSION

The research concludes that college student GPA is not representing the learning environment quality or psychology capital. The detailed analysis about the fourth relation of studied variable can be concluded as follow:

- a. Learning environment or psychology capital of SBM college student does not have any significant relation on SBM students GPA. It means that SBM students GPA more reflect cognitive quality (hard skills), it reflects that SBM lecturers give GPA only for representing the college students intellectual quality.
- b. Research concludes that learning environment at SBM does not influence the student college GPA. This research result is contrast with

previous expert research and also proved on the same research in 2007 that was done by Prof Jann Hidajat and Hari Febriansyah MT to SBM college students 2007 graduated, that learning environment has significant influence on college students GPA.

- c. Moreover, research also show that learning system at SBM, that is designed to produce alumnus competency according to SBM vision and mission, in fact not proved able to give effect on GPA formation of 2008 and 2009 intakes.
- d. This research proposed learning method and learning evaluation method using Hay' Leadership Skill approach. Last but not least this research proposed solution for learning environment so students GPA hopefully will be influenced by learning environment, Psy-Cap as well as Leadership Skill, to achieve SBM vision.

ACKNOWLEDGEMENT

Special thanks to SBM-ITB students 2008 and 2009 intakes who have gave time and attention to fill in this research questionnaire, also Febriansyah for giving the references.

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Service Brand Experience: The Perception towards Service Personnel and Self-Service Technologies

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Abstract

Recently, research has been shown that consumers do not focus on the benefit of functional in products or services, but they intend to perceive the experiential aspects of the offers as the choice of decision. Now, experience is the key issue to manage in marketing environment. The experience that consumers perceive in the service encounter referred to brand-related stimuli such as color, shape, slogan, mascot which can build brand experience. Superior brand experience can build brand loyalty and foster evangelism. Brand-related stimuli encourage customer via touch-point. The advancement of technology have led to the transformation of self-service touch-point. The primary reason to use self-service technologies (SSTs) as a touch-point were saving labor cost and increase the alternative to delivering service. Operation of SSTs allows customer to produce and consume service without direct assistance from employees, but not all of customers can operate SSTs well. To solve this problem, some service provider assigned employees stand beside SSTs delivery station to demonstrated how SSTs worked. Although, the intention to save cost by introduced SSTs would be lost, frustrated customers from technology were effect toward customer loyalty and satisfaction (Strother et al.,2010).

With increased understanding of these issues, service providers will be better equipped to offer appropriate service personnel attributes and SSTs attributes to customers and to manage the implementation of brand experience applications more effectively. To explore this study, we propose research questions are 'Does self-service technology influence brand experience?' and 'Does service personnel attributes mediates between self-service technology and brand experience?'

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Introduction

Recently, research has been shown that consumers do not focus on the benefit of functional in products or services, but they intend to perceive the experiential aspects of the offers as the choice of decision (Zarantonello and Schmitt, 2010). Many scholars (Iglesias et al., 2010; Brakus et al., 2009; Zarantonello et al., 2007) suggested that experiences have occurred in four stages; 1) search 2) shop 3) receive and 4) consume products and services. Pine and Gilmore (1999) stated that experience is the key issue to manage in marketing environment. According to marketing literatures, concept of experiences was examined in various contexts such as service experience, consumption experience, customer experience etc. (Berry et al., 2006; Gentile et al., 2007; Hui and Batson, 1991).

When the consumers interact with products or services, their experiences are formed in their mind as a result of encounter with the holistic offer of a brand (Klaus and Maklan, 2007). Due to the fact that a bundle of features, attribute and perception of company's offer designed to consumers as a brand, so it influence consumer's preference and purchasing behavior. The experience that consumers perceive in the encounter is referred to brand-related stimuli. Brakus et al., (2009) revealed that brand stimuli are color, shape, slogan, mascot and brand character of products. This is consistent with Hui and Bateson (1991) who stated about service experience as the interaction between consumer and stores physical environment, personnel, policies and practices. Experience with a brand or brand experiences are set of sensations, feelings, cognitions and behavioral responses that are evoked by many different stimuli. Brand-related stimuli encourage customer via touch-point such as face-to-face, personal-but-distant, and electronic customer interface (Schmitt, 2003). Brakus et al., (2009) proposed that brands which are capable of delivering a superior brand experience can achieve preference over and differentiation from other brands and builds brand loyalty

and foster evangelism. While Iglesias et al., (2011) have found that brand experience has significant related to customer loyalty.

In the past, brand managers use product brand in a service context, but nature of goods offerings is quite difference from service. Furthermore, service offerings were complex and largely processes, people and physical facilities (Tax and Stuart, 1997). Thus an evaluation of service brands by consumer difference from goods brand. Marketing managers found that when they want to measured the impact of marketing strategy, a measurement for service quality was needed (Kluas and Maklan, 2007). In addition, the measurement of service quality such as SERVQUAL of Parasuraman et al. 1988 does not capture all aspects of the service brand due to its focus on the functional aspects of service quality (Buttle, 1996). The measurement of brand experience must capture four aspect of experiences: sensory, affective, intellectual and behavior experience (Brakus et al., 2009). Furthermore, well management both functional and emotional elements of brand offering can make that brand capable delivering a unique and distinctive experience (Berry et al. 2002, Brakus et al. 2009). Both internal and external touch-point enhanced customer experience that has been build through brand experience (Lovelock et al. 2007). In the past, major touch-point was face-to-face (Curran and Meuter, 2007; Strother et al., 2010), but from the advancement of technology have led to the transformation of self-service touch-point (Lu et al. 2008; Meuter et al. 2000; Meuter et al. 2003; Ha and Perks, 2005). The primary reason to use self-service technologies (SSTs) as a touch-point were saving labor cost and increase the alternative to delivering service (Meuter et al., 2000; Meuter et al., 2003; Lee and Allaway, 2002). Operation of SSTs allows customer to produce and consume service

without direct assistance from employees (Meuter et al., 2000), but not all of customers can operate SSTs well. Customers who's operated SSTs must understanding features of technology and early adopter with technology. However, many customers need more time to adapt and accept new technology. To solve this problem, some service provider assigned employees stand beside SSTs delivery station to demonstrated how SSTs worked. Although, the intention to save cost by introduced SSTs would be lost, frustrated customers from technology were effect toward customer loyalty and satisfaction (Strother et al.,2010).

In previous research, area of brand experience publication was mainly focused in the effect of brand experience toward satisfaction and loyalty (Brakus et al 2009; Iglesias et al 2011), brand trust (Ha and Perks 2005), and purchase intention (Zarantonello and Schmitt 2010). According previous studies, Self-Service Technologies was mainly focused in attitude (Curran et al 2003), and belief (Froehle and Roth 2004). In addition, the previous investigated area of service personnel attributes acknowledged that personal interactions between consumers and front-line employees are important for creating customer satisfaction and commitment (Ganesh, Arnold and Reynolds, 2000). Study linked between brand experience, perceived service personnel attributes, and perceived SSTs attributes did not have research to investigate in this area. With increased understanding of these issues, service providers will be better equipped to offer appropriate service personnel attributes and SSTs attributes to customers and to manage the implementation of brand experience applications more effectively. To explore this study, we propose research questions are '*Does self-service technology influence brand experience ?*' and '*Does service personnel attributes mediate between self-service technology and brand experience?*'.

Literature Review

1 .Brand experience

Brand experience arise when consumers search, shop, and consume brand. It is not a general judgment of brand, but it include specific sensations, feeling, cognitions, and behavioral responses triggered by specific brand-related stimuli (Brakus et al.,2009). Brand experience is defined as brand familiarity and brand knowledge (Alba and Hutchinson,1987). While, Brakus et al. (2009) defined as subjective and internal consumer responses (sensations, feelings, and cognitions) and behavioral responses evoked by brand-related stimuli. In addition, Ha and Perks (2005) defined as the navigations and perceptions with a brand-related stimuli. Thus, we conceptualized brand experience as '*an internal and external response of customer to a specific brand*', and it is construct including four dimensions: sensory, affective, intellectual, and behavioral experience (Brakus et al.,2009; Zarantonello et al.2007; Zarantonello and Schmitt 2010). Sensory experience refers to the visual, auditory, tactile, gustative, and olfactory stimulations provided by a brand. Sensory experience will measured from an aesthetics perceptions and usage. Affective experience includes feelings generated by the brand and its emotional bond with the consumer will measured from emotional judgment. Intellectual experience refers to the ability of the brand to engage consumers' convergent and divergent thinking. Affective experience will measured from creative usage. Behavioral experience includes bodily experiences, lifestyles, and interactions with the brand. Behavioral experience will measured from reaction when interacting with a brand.

Customers contact a brand contact via three types of touch-points: face-to-face, personal-but-distant, and electronic customer interface (Schmitt, 2003). Airline industry have fifteen touch-points; advertising, website, ticket office, check-in,

airport lounges, cabin interiors, in-flight multi-media, crockery, food, in-flight service, flight, ground uniforms, crew uniforms, seat comfort, and baggage collection (Annual Report of Thai International Airways, 2005; www.interbrand.com). Airline service process divided to three stages: Pre-flight, In-flight, and Post-flight (Shaw, 2007). These touch-points will affect airline customers every stages. Fifteen touch-points group into three stages. There are six pre-flight, seven In-flight, and single post-flight touch-points. The major touch-point appear in pre-flight and in-flight stage. We will find the involvement of technology that both customers and service personnel can use technology is pre-flight stage. Pre-flight stage have two major processes: Ticketing and Check-in process. Ticketing process comprise of reservation and paying for ticket. From the fast growing of communications and information technology, many service organizations provide Self-Service Technologies (SSTs) to delivery service. SSTs have already been intensively implemented in two major processes of pre-flight stage in the airline industry and the most popular SSTs is check-in kiosk (Chang and Yang 2008). While, customer operate check-in kiosk by themselves, it can occur problem overtime such equipment or system failures. Anderson (2006) believed that service personnel can help customer who's operate check-in kiosk because service personnel are key participants in any service transaction.

Pervious research in the area of experience focused on an involvement of customer participation type (active or passive) and the degree of social interaction, absorption, or immersion (Pine and Gilmore 1999), product features and benefits (Ha and Perks 2005), utilitarian product attributes and category experience (Brakus et al. 2009). However, brand-related stimuli was an importance antecedence and a major source of brand experience (Brakus et al. 2009; Zarantonello

et al. 2007), the research which investigated in brand-related stimuli area did not have.

2. Service Personnel

The traditional service encounter is personnel interaction or face-to-face of human interaction. Service personnel in a service setting has direct contact with customer and they are a key participants in any service transaction (Anderson, 2006). The assigned employees assisted customer operate SSTs were ground staffs. They are not only perform their work, they are required to manage the service delivery process (Anderson, 2006), and it can directly influence a customer's perception of the organization (Schlesinger and Heskett, 1997). It is well recognized that front-line employees influence consumers' perceptions of the service encounter (Bitner 1990, Parasuraman et al. 1985). An interactions between customers and employees of an airline influence customers' perceptions of the airline (Gursoy et al. 2005). Therefore, a front-line airline service personnel represent airline brand and the difference attributes enhance difference service brand experience.

Pre-flight airline service delivery process use self-service technologies to support daily service operation. Service personnel employs technology to assisted their work and technologies as an aid to improve the fact-to-face contact. Service personnel still are the key participants in the service process. Technology helped service personnel to have enough information for communication and decision support which reduce customers time to make their decision (Roge, 2007). Technology-mediated environment mentioned about type of communication of service personnel have two types: task-oriented communications, and relationship building communications (Froehle and Roth, 2004). Characters of service personnel who have task-oriented communications were knowledgeable, preparedness,

and thoroughness. Characters of service personnel who have relationship building-oriented communications were courtesy, professionalism, and attentiveness. Communication type in technology-mediated environment were a measurement from technology involvement and task to perform of service personnel. Thus, generalizing of service personnel attributes from technology-mediated environment to the environment of technology-assisted is possible.

Past research in service personnel was focused on the characteristics and dynamics of interaction between the customer and service representative in the service delivery process (Cunningham et al. 2009). In recent year, area of research changed to investigate the determinant of customer to use SSTs or service personnel (Beaton et al. 2006). Service personnel can differ from one another on a variety of dimensions and attributes (Froehle, 2006). And, service personnel can made intangible of service visible and hard for competitors to duplicate their performance and they play role as an interface with customer (Heracleour et al. 2006). Behaviors and attitudes of service personnel can significantly shape the customer experience with the service provided and their assessment of its quality (Parasuraman et al. 1985). In addition, quality assessment of airline passengers evaluated from service personnel who shape their experience (Babbar and Koufteros, 2008). And SSTs enables service personnel to have an information to inform customers and efficiency behavior (Bitner, 1990). Thus, service personnel mediated between customers and SSTs as a major touch-point and they can made better brand experience by provide brand communication through their work and communication with customer that they interact.

3. Self-service Technologies

From the fast growing of information technology, service industry is not excepted from this change. Many service providers accept information technology to their company and apply it to their process of service. When service companies want to deliver their service to customer, they can use various channels to deliver. Traditional delivery channels still exist and new delivery channels could be introduced to their customer such as by IT mode. It is an alternative for customers interface with service providers and, therefore, many influencer customers' perceptions of the service experience (Boyer et al. 2002, Heim et al. 2001, Anitsal et al. 2007). Froehle and Roth (2004) proposed the technology-mediated customer contact into five possible modes: Technology-free, Technology-assisted, Technology-facilitated, Technology-mediated, Technology-generated Customer Contact (Self-Service). For this research will concentrate in the last type of customer contact, which is the human customer service representative component of the service encounter is entirely replaced by technology. In this research SSTs are defined as '*technological interfaces that allow customers to produce services independent of direct service employee involvement*' (Meuter et al. 2000).

Self-service technologies attributes were abstract and identify the incidents that will affect brand experience. The five service performance attributes of SSTs were included (Weijters et al. 2007): perceived usefulness, perceived ease of use, perceived reliability, perceived fun, and perceived newness. Perceived Usefulness were the items which focus in the perception of potential benefits that the technology has to offer. Perceived ease of use were the items measure how easy of the use technology-based self-service option. Perceived Reliability were the reliability and perfect, or whether risk is involved in the process. Perceived fun were the items emphasizes the words

“enjoyable”, “fun”, “entertaining”, and “interesting” in order to capture the aspect of novelty in this structure before providing the context of service innovation. Perceived newness were the items emphasizes the newness of equipment / technology to service in process. SSTs is a touch-point that technology play a role as an interface. We called ‘electronic customer interface’, and this touch-point work as a brand related-stimuli which a source of brand experience. Even though, finding from Beaton et al.2006 found that customer like service personnel to serve them more than SSTs., but the reliability, ease of use, and fun of SST. can replace the need of service personnel (Meuter et al.2000).

4. Perceived Control

Many airline educated customers to use check-in kiosk such as organizing campaigns where service personnels show customers how the kiosk work (Liljander et al., 2006). However, customers who are used service personnels to check-in may not likely to operate SSTs and need service personnels to assisted them while they make an operation with SSTs.

Conceptual Framework

The important of service personnel and SSTs as touch-point for brand, we believed that both of them can institute brand experience. In order to provide a framework for our exploration of the research questions, we have developed a model to illustrate relationship between each of the constructs (see Fig.1). In regards to the research questions are explored.

Request for help from service personnel by customers showed that customers need for knowledge and service personnels can inform customers about what happened, what can be done (Bitner et al., 1990). But for many customers who like to operate SSTs by themselves will feel they lost their control. It depend on technology readiness of customer which is define as a propensity to embrace technology and would be expected to influence the predisposition to use new technologies (Parasuraman, 2000). If customers belief that they can control an operation with SSTs, they will likely to accept the result of that operation and feel good to do by themselves. Thus, for this study, we conceptualized perceived control as a belief in one’s ability to command and expert power over the process and outcome of a self-service encounter (Collier and Sherrell, 2010). Need for control of customer depend on situation that they confront (Oyedele and Simpson, 2006), such as with unfamiliar equipment like SST. And customer feel less control when service personnel monitor them and try to show how SST. work (Lee and Allaway, 2002).

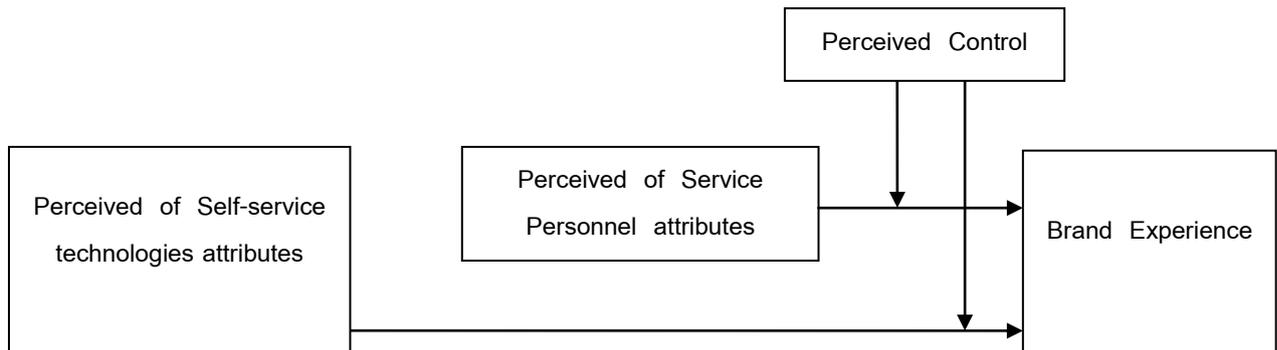


Fig.1 The conceptual framework

Implications for research

This article provides a conceptual framework designed to guide further research in the domain of brand experience. Another direction for further research should be done with experimental design by having service personnel assisted customers or let consumer operate SSTs by themselves. An experimental design for research could provide important insights of brand experience effects from various touch-point such as the comparison between human as a mediator between technology and direct experience with technology touch-point.

The understanding consumers' perceptions of brand experience will allow marketers to make both tactical and strategic marketing decisions. Tactical decisions involve improving touch-point for the firm's existing target markets. Extending number of kiosks to service airline passengers might improve willingness to use SSTs. Strategic decisions involve selecting target markets and managing touch-point to shape brand experience based on SSTs. By analyzing brand experience concept in a service setting, a firm may find segments behind SSTs service delivering process, or it may find a gaps along the service personnel and self-service technologies delivering process that suggest market opportunities.

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Antecedent and outcomes of emotional labor: The moderating role of coworker support and customer verbal aggression

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Abstract

Organizations provide display rules for service employees to perform during their works. Employees can not display the desired emotion, they may suppress their genuine emotions and fake unfelt emotion. Thus, this paper attempts to examine the process of emotional labor as performed by frontline employees, particularly, the factors that modify the relationship between emotional labor strategies and individual outcome.

This conceptual paper reviews literatures on emotional labor strategies with the research on service workers. It draws on the framework of emotion regulation which illustrates the relationship of situational cues-emotional regulation process-consequences. Through this framework, this paper develops 8 propositions. Frequency of interactions is hypothesized to lead to emotional labor (deep acting and surface acting), the emotional exhaustion is hypothesized to mediate the relationship between emotional labor and turnover intention, and coworker support and customer verbal aggression are hypothesized to moderate the relationship between emotional labor and emotional exhaustion.

The model proposed in this paper has practical implications and suggests that managers wishing to retain their service employees need to understand the process of emotional labor and the factors that modify individual outcomes. In addition, it points to the need for organizations to provide training to show employees how to express appropriate feelings rather than asking employees to display unfelt feeling.

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Introduction

During the past 25 years, scholars have taken an interest in the importance of emotion and its effects on organizational behavior (Chau et al., 2009), particularly interpersonal interactions between service employees and customers. Thus, emotional labor plays an important role in service work. The term emotional labor was coined in 1983 by Hochschild who conceptualized emotional labor as the management of feeling to create positive facial and bodily expressions (Hochschild, 1983). Generally, organizations provide display rules, the standards that indicate which emotional expressions are appropriate for the situation (Ekman, 1992), for service employees to perform during their work. If employees cannot display the desired emotion, they may suppress their genuine emotions and fake unfeigned emotion (Diefendorff et al., 2005). Therefore surface acting and deep acting as emotional labor strategies are used when service workers cannot express true emotions. During the emotional labor process a level of effort by employees is required. Deep acting and surface acting may have negative and dysfunctional consequences for service workers (Hochschild, 1983) such as affects to their well-being, emotional exhaustion, job dissatisfaction, burnout and withdrawal behavior (Morris and Feldman, 1996; Chau et al., 2009; Goodwin et al., 2011). These outcomes of emotional labor are of concern to management in organizations because they affect the well-being of their employees.

However, previous research had mixed results in the relationship between frequency of interaction and emotional labor (Diefendorff et al., 2005; Brotheridge and Lee, 2003). There is also mixed evidence on whether emotional exhaustion is the mediator of emotional labor and turnover intention (Goodwin et al., 2011; Chau et al., 2009). This paper focuses on how emotional labor strategies have an indirect effect on individual and organizational outcomes. Likewise, a contingency approach is needed

to explain more of the relationship between emotional labor and emotional exhaustion.

Hence, the purpose of this paper is to develop a process of emotional labor model as performed by frontline employees. In particular, this paper examines the relationship of frequency of interactions and emotional labor, the mediating role of emotional exhaustion between emotional labor and turnover intention, and the moderating role of coworker support and customer verbal aggression in the emotional labor and emotional exhaustion relationship. The following sections describe the model proposed and then discuss emotional labor, antecedent, indirect effect of emotional labor and turnover intention, and moderators which modify the relationship between emotional labor and outcome and their hypothesized relationship.

Conceptual model

This paper draws on the framework of emotion regulation performed in the workplace proposed by Grandey (2000). This framework illustrates the relationship of situational cues-emotional regulation process-consequences. The basic assumptions of this framework are that variables in the nature of customer contact lead to an emotional labor process (Morris and Feldman, 1996), and that emotional labor strategies (deep acting and surface acting) used in performing emotion regulation and emotional labor strategies affect individual and organizational outcomes.

In the proposed model, the frequency of interactions is an antecedent or situational cue of emotional labor, deep acting and surface acting are emotional labor strategies used in the emotional regulation process, and emotional exhaustion and turnover intention are outcomes or consequences of emotional labor. In addition, we pay attention to the moderating role of coworker support and customer verbal aggression on the relationship

between emotional labor and emotional exhaustion (see Figure I).

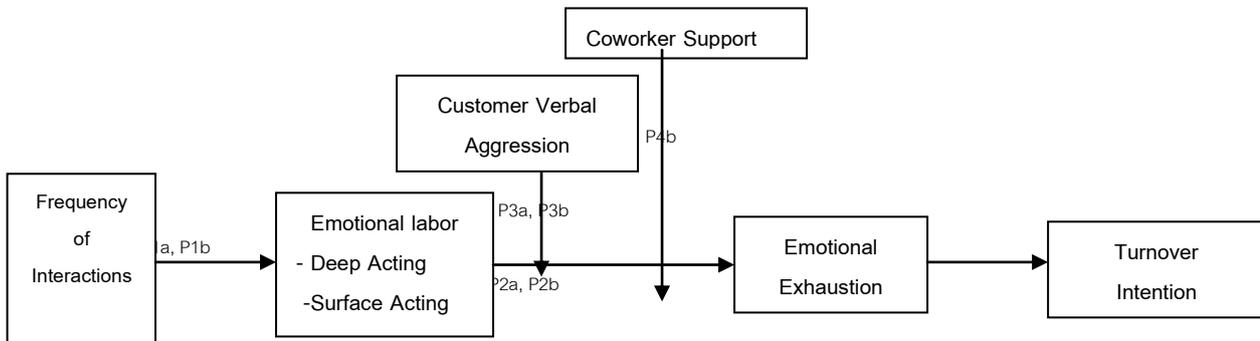


Figure I: The proposed conceptual model of moderating effects of customer verbal aggression and coworker support on emotional labor strategies and consequences.

Emotional labor

Emotional labor is defined as a process of regulating both feelings and expressions for organizational goals (Grandey, 2000). This definition is applied from three perspectives on emotional labor of Hochschild, Ashforth and Humphrey, and Morris and Feldman (Grandey, 2000). Emotional labor is grounded in the theory of emotion regulation which is defined as “the processes by which individuals influence which emotions they have, when they have them, and how they experience and express these emotions” (Gross, 1988b, p.275). Service organizations always provide displays rules for their employees. These rules point to which emotions should be expressed and which emotions should be suppressed in public (Hochschild,1983). In the services context, scholars accept that deep acting and surface acting are most commonly used as strategies of emotional labor for responding within the display rules of the organization (Hochschild,1983; Grandey, 2000).

Deep acting refers to employees modifying their feelings to match the required situation. It is called “faking in good faith” (Grandey, 2003). In deep acting, employees may attempt to change feelings of annoyance to pity or empathy, which is

the appropriate emotion (Groth et al., 2009). For example, a hotel receptionist tries to feel empathy and looks concerned when she learns that her customer has lost his wallet. In this scenario the employee is following the organizational rules.

Surface acting refers to employees modifying their displays of emotion without actually altering their inner feelings. It is called “faking in bad faith” (Grandey, 2003). In surface acting, employees may suppress annoyance and put smile on their face, or “putting on a mask”, without changing their inner feelings during the service encounter (Grandey, 2003). For example, a salesperson may smile during an encounter with an unfriendly customer. In this scenario, the employee conforms to the display rules to keep their job, not to help the customer or the organization (Grandey, 2003).

Frequency of interactions and Emotional labor

Frequency of interaction between service providers and customers is viewed as an antecedent of emotional labor in a service setting. Frequency of interaction refers to how often service employees interact with customers (Diefendorff et al., 2005). The more often interactions occur, the more likely that employees need to regulate

their emotional expressions by controlling vocal and facial expressions. When service employees don't encounter customers in the workplace, they have less experience in emotional dissonance. On the contrary, in face-to-face interactions between an employee and a customer, the service employee doesn't always express his/her genuine emotion (Morris and Feldman, 1996).

Previous studies have revealed that frequency of interactions was positively associated with deep acting and surface acting (Brotheridge and Lee, 2003; Brotheridge and Grandey, 2002). These results contrast to the findings of Diefendorff et al., (2005) who investigated the relationship between frequency of interaction and deep acting and surface acting, and found that this relationship was not supported. This paper will attempt to replicate this causal link in frontline employee context. Thus, our research Proposition 1 is:

P1a: Frequency of interactions is positively related to deep acting.

P1b: Frequency of interactions is positively related to surface acting.

Indirect Effect of Emotional Labor and Turnover Intention

Employee turnover has been a topic of interest for scholars in the field of organization for many years (Goodwin et al., 2011) because when employees leave their job, they may do so because of interpersonal problems. Before terminating their job, employees compare job satisfaction in their current position with their future job (Meglino, 1979). This process generates intentions to turnover. Intention is the effective predictor of behavior due to the attitude, intention and behavior model (Ajzen and Fishbein, 1977).

When service employees recognize that they are exhausted by their job, they might intend to leave and finally may withdraw from the organization. Employee turnover intention refers to an employee's subjective assessment that he/she will leave

his/her current employer in the near future (Boyd et al., 2009).

This paper examines intention of leaving as a cognitive process of the employee which the organization's management needs to consider retaining vital assets. We do not expect that when frontline staff employs emotional labor it will affect turnover intention. Rather, we predict that emotional labor of frontline employees influences turnover intention through emotional exhaustion. Emotional exhaustion is one of the three dimensions of the burnout construct conceptualized by Maslach and Jackson (1981) and refers to the state of depletion and fatigue (Maslach and Jackson, 1981). Working in the service environment may create emotional exhaustion for two reasons; 1) draining resources while acting, and 2) stress of emotional dissonance (Hochschild, 1983). When service employees fake emotions, there is a disparity between expression and inner feelings. This is consistent with Grandey (2003) who found that surface acting was positively associated with emotional exhaustion.

Gaines and Jermier, 1983 suggested that emotional exhaustion influences organizational outcomes such as absenteeism, job dissatisfaction and turnover. Likewise, Visser and Rothmann (2008) found that emotional exhaustion was positively related to turnover intention in call centre workers. This is consistent with (Hobfoll & Freedy, 1993) who suggested that when employees confront customers, their emotional resources are reduced and this depletion may result in withdrawal behavior.

However, Chau et al., (2009) found that emotional exhaustion mediated the relationship between surface acting and employee turnover intention. Contrary to Goodwin et al., (2011) who suggested there was no support for the mediating role of emotional exhaustion in this relationship, this paper attempts to replicate this relationship to find whether a different result. Thus, P2 is:

P2a: The relationship between deep acting and turnover intention is mediated by emotional exhaustion.

P2b: The relationship between surface acting and turnover intention is mediated by emotional exhaustion.

Moderating role of customer verbal aggression and coworker support

The model proposed in this paper presents the two moderators - customer verbal aggression and coworker support - which moderate the linkage between emotional labor and emotional exhaustion. This paper focuses on the variables that modify the relationship between emotional labor and emotional exhaustion because understanding the triggers in this relationship is critical for management in the organization.

Customer verbal aggression

Customer verbal aggression refers to customers' verbal communications of anger that violate employees' social norms (Glomb, 2002) such as swearing, yelling, threats, condescending remarks and sarcasm (Grandey et al., 2007; Harris and Reynolds, 2003). During the service encounter, if the employee supports the philosophy that "the customer is always right", they have to serve the customer politely and in a friendly manner although these are not their true emotions. Service employees have to fake in "bad" or "good" faith in order to perform

P3a: Customer verbal aggression moderates the relationship between deep acting and emotional exhaustion, Specifically, the higher the level of customer verbal aggression, the weaker the relationship.

Coworker support

Social support refers to consideration, respect or assistance from others, which creates the sense of being cared for, respected, valued and part of the social group (Sarafino, 1997). Social support can be emotional support such as sympathy, affirmative such as opinion support or

their work. Faking in service encounters depletes frontline employees' emotional resources. Confirming this idea, Grandey (2003) found that emotional exhaustion was experienced when an employee engaged in surface acting, while the relationship between deep acting and emotional exhaustion was not significant.

"The customer is always right" philosophy results in unequal power in the customer/ employee transaction (Karatepe et al., 2009; Yagil, 2008; Grandey et al., 2004). Even if a service employee uses the strategy of deep acting, they may become exhausted by their exposure to the verbal aggression of the customer. Thus, there may be a situation of low deep acting and high emotional exhaustion. When customer verbal aggression is perceived to be high, the service employee might have to expend more effort in order to be authentic to customers, which may in turn affect the level of emotional exhaustion. In contrast, for a service employee who has negative feelings when engaged with surface acting, this feeling leads to emotional exhaustion. When this frontline employee is faced with customer verbal aggression, it appears that they are aggravated by negative emotion. A high level of perceiving customer verbal aggression may increase service employee emotional exhaustion. Therefore, Proposition 3 is:

P3b: Customer verbal aggression moderates the relationship between surface acting and emotional exhaustion, Specifically, the higher the level of customer verbal aggression, the stronger the relationship

tangible such as advice. The support of coworkers and supervisors are the social support which mostly influences an employee's well being (Ng and Sorensen, 2008). This paper focuses on coworker support because employees prefer to talk, to express and to vent their emotions to their co-workers more so than to their

supervisors. Wu and Hu (2009) suggested that coworker support was a crucial resource that can help employees deal with abusive supervision and with emotional exhaustion. Thus, given that support from coworkers can strengthen the deep acting efforts of frontline employees, then the relationship between deep acting and emotional exhaustion may improve.

When surface acting, employees don't express genuine emotion and so may

P4a: Deep acting has a strong impact on emotional exhaustion under conditions of high level of coworker support and a weaker impact when level of coworker support is low.

have unpleasant feelings after the service encounter. When a service employee shares their negative experiences with a coworker and the coworker appreciates the surface acting effort of the frontline employee, these negative feelings may dissipate. The relationship between surface acting and emotional exhaustion may reduce if frontline employees are supported by their coworkers. Thus, the P4 is:

P4b: Surface acting has a stronger impact on emotional exhaustion under conditions of low level of coworker support and a weaker impact when level of coworker support is high.

Conclusions

Literatures in emotional labor have suggested that service employees often have to follow the display rules of organizations when dealing with customers. They consider which emotions to express to the public or sometimes manage their feelings. To regulate emotion, they use deep acting and surface acting as emotional labor strategies. The literature suggests that the number of interactions with customers affects emotional labor and employees who use surface acting strategies might experience emotional exhaustion, while employee who uses a deep acting strategy may not suffer that effect. Moreover, employees who feel exhaustion from their work may decide to withdraw from the organization altogether. In addition, coworker support and customer verbal aggression are suggested to be the moderator of the relationship between emotional labor and emotional exhaustion. These two constructs are proposed to modify this relationship.

The propositions in this paper need to be tested in the customer service setting. Frontline employees as service providers in service businesses are the targets of this

paper. A self-report questionnaire will be administered to participants as Morris and Feldman (1996) suggested that questionnaire is appropriate for revealing sensitive information such as emotional dissonance. The scale development by scholars will be used to measure constructs, for example, surface acting and deep acting will be measured by using scale development of Grandey (2003). The structural equation model will be useful for analyzing data of this paper. The relationships of some constructs have been examined previously with varying results. Furthermore, no evidence of the moderating role of customer verbal aggression on the relationship between emotional labor and emotional exhaustion has been found in the literature. However, this should be a contribution of this research.

The model proposed in this paper has practical implications and suggests that managers wishing to retain their service employees need to understand the process of emotional labor and the factors that modify individual outcomes. In addition, it points to the need for organizations to provide training to show employees how to

express appropriate feelings rather than

asking employees to display unfeeling.

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