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## **PREFACE**

Dear All Participants of the 2<sup>nd</sup> ICHCKM 2015,

It is my pleasure as the Chief of ICHCKM 2015 to all of you, by having this conference proceeding. We are very happy to inform that this conference has succeed with more than 200 attendants from 6 countries in Asia and Europe region; 100 papers has been received, and 25 papers has been published on two accredited journals in Indonesia and Malaysia.

We hope through this proceeding, we could enrich and enlarge our knowledge, experience and networking on human capital management, learning organization and knowledge management.

We hope, we could meet, present and discuss in next 3<sup>rd</sup> ICHCKM arrangement.

Best Regards,

**Asst. Prof. Hary Febriansyah, Ph.D**  
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Full Papers

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# Relationships of Learning in Occupational Safety and Health Training and Occupational Related Injuries

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## Abstract

Tremendous development of industrialization in Malaysia contributes to higher rate of occupational injuries. Enactment of OSH act 1994 enforces Occupational Safety Health training as one of vital elements in every industry. This study attempt to highlight current issues in Occupational related injuries (ORI) and Occupational Safety and Health training (OSHT). Elements of ORI are differences of age, young workforce, aging workforce, working experience, cognitive abilities and occupations identified in literature while elements of OSHT which indicate the elements of learning effectiveness in safety training are training method, adult's learner, and training design. Previous research signified that there are positive relationships between elements of Occupational related injuries and Elements of Occupational safety and health training, The most engaging training design evaluated as the most effective training in reducing numbers of injuries. On the other hand, learning process; knowledge acquisition, mastering skills and shaping the right attitude for safety and health involve in training plays critical part to determine the successful of OSHT conducted To summarize research model is proposed.

**Keywords:** *Safety; Training; Occupational; Training Method; Training design*

## 1. Introduction

### 1.1. Occupational Safety and Health in Malaysia

Occupational safety and health (OSH), which is the discipline concerned with preserving and protecting human and facility resources in the workplace, is an important aspect in reducing risk at workplace. OSH is a basically standard which are set in legislation with the aim to eliminate and reduce hazards at workplace. (Amirah, Asma, Muda, & Wan Mohd Amin, 2013). In Malaysia, the role of occupational safety and health has existed since 130 years ago. According to the Department of Occupational Safety and Health (DOSH, 2010), the development of safety and health at workplace can be categorized into five eras. It started with the first era, named Steam Boiler Safety Era, which took place prior to 1914. Subsequently, the Machinery Safety Era took place from 1914 until 1952. During this era, the Machinery Enactment 1913 replaced the various steam boiler enactments of Allied Malay States on 1st January 1914. The development of safety and health at workplace expanded in the following era of the Industrial Safety Era that took place from 1953 until 1969. In 1953, the Machinery Ordinance 1953 was enacted to replace all previous legislations. Subsequently, in 1967, the Parliament had approved the Factory and Machineries Act (FMA 1967). Between the years 1970 until 1994, the era was called the Industrial Safety and Hygiene Era. In this era, few modifications were made. Starting in 1970, the Factory and Machineries Act 1967 and eight of its regulations were enforced replacing the Machinery Ordinance 1953. In 1980, the application of the Factory and Machineries Act 1967 was extended to Sabah and Sarawak. Since the year 1994, it is the Occupational Safety and Health Era where the Parliament passed a new legislation known as the Occupational Safety and Health Act (OSHA) 1994 which was gazetted on February 1994. History of OSH in Malaysia is lengthy and winding however the implementation of OSH act 1994 is considered as one of the biggest move made by the country. Yet vast of work, exercise, practices, research and training seems to be one of the pillar of ensuring the successful of the osh program

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### 1. 2.OSH Act 1994

One such control measure is highlighted in OSHA 1994 part IV section 15 (1), which states that: 'It shall be the duty of every employer and every self-employed person to ensure, so far as is practicable, the safety, health and welfare at work of all his employees'. The enactment of OSH 1994 covers 9 industries in Malaysia involving:

- a. construction
- b. manufacturing
- c. mining and quarrying
- d. agriculture, forestry and fishing
- e. utilities-gas, electric, water and sanitary services
- f. transport, storage and communication
- g. wholesale and retail traders
- h. hotels and restaurant
- i. finance, insurance, real estate, business service

Fakrul et.al (2003) claimed that for any safety related at workplace, training is uncompromised to every single aspect. Previous research conducted were also agree and highlight that training is an essential component for a successful OSH program in any organization.(Bahn & Barratt-Pugh, 2012, Burke et al., 2011).

### 1. 3.Occupational Safety and Health training (OSHT)

(Kordecka, 2009) suggested that training of OSH is considered as important prevention tool and a key factor towards strengthening of preventions and high awareness on hazards exposure. The purpose of any safety training is to modify and shape specific behaviors and to transfer knowledge and skills that should be applied at any level of task that the employee should apply. It is wise to take note that for every formal training programme, five important rules should be implemented for effective outcome of training. The five steps involve are:

1. Performance analysis
2. Instructional design
3. Materials acquisition
4. Delivery of training
5. Course evaluation (Yates, p 303-307, 2011)

### 1. 4.Occupational Safety and Health Training (OSHT) In Malaysia

Regardless of all industries, every workplace evolves dynamically in every stage of process. Hence this contributes to increase number of new hazards in workplace and expose the workers to the high risk of accidents. To manage these hazards the government through its various ministries and agencies, universities, safety and health professionals has developed various regulations and trainings supported by NIOSH. As national institution that promotes and cultivate each of OSH training in Malaysia, NIOSH stand remain as the main source of all types of training involving safety and health in Malaysia for every organizations for all industries covered under the OSH act 1994. Other than that there are also training provider recognized either by DOSH (Department of Occupational Safety and Health) as well as by international board. To conclude employer could provide both approach of safety and training to the workers as stipulated under the Act either by having in house training and any safety and health training institutional. The main challenge towards the implementation of the OSH program is on the part of how knowledge and skills can be transferred accordingly. Analysis from national OSH masterplan indicates that there are three stages of National OSH Master plan, started with self regulation continued with producing safety culture and improved with preventive culture. It seems that training is the essential component. Knowledge, skills and related information can only be transferred via safety and health training.. On top of this training is considered as a tool of accidents preventive in occupational safety and health. Along with this effort, besides DOSH (Department of occupational safety and health) and Ministry of Human Resource, NIOSH is cooperating with all agencies and department as safety and

training hub. NIOSH offers two types of training provided are the competency and non competency training. National Institute of Occupational Safety and Health (Niosh) chairman Tan Sri Lee Lam Thye (Borneopost, 2011) highlight the setting up of industries to serve various development corridors according to the government transformation programme had pushed up the demand for qualified SHO. from 1997 to 2010, a total of 5,681 had passed the SHO examination but only 2,352 registered with the Department of Occupational Safety and Health (DOSH). From 1997 to 2010, Niosh trained 15,000 SHO but not everyone sat for the exam as some such as human resource managers, procurement officers and so forth joined to gain knowledge on safety.

### **1. 5.Occupational Safety and Health (Safety and Health Officer) Regulations, 1997**

“The Occupational Safety and Health (Safety and Health Officer) Regulations 1997 which came into force on 22 August 1997 requires certain industries to employ a competent safety and health officer to resolve matters pertaining to the safety and health at their workplace” (Niosh, 2013). Section 29 – Safety and Health Officer Section 29 compels companies exceeding 100 or 500 employees (depending on the nature of business) to appoint a Safety and Health Officer where non-compliance of this provision may also be relevant to this problem. As suggested previously by Xavier (1996), appointment of a safety and health officer should not be severely restricted according to the number of workers. He further reiterates that the question of danger does not lie in numbers but in the nature of the work carried out at the workplace. Since this is a provision which ensures that compliance with the safety and health provisions of the Act is monitored, he suggests that this compulsion should not be restricted to certain categories of occupation only.

### **1. 6.Safety and Health officer training programme (SHO)**

This programme is designed to train and produce safety and health officer. Basically the participants of this programme need to fulfill certain requirements and they have to sit for 22 days training in Niosh involving of 4 training modules. Basically the training sessions aims to expose the trainee are; safety, health, management and legislations. After that they have to sit for examinations and pass all 4 types of assessments conducted in Niosh under the instructions of DOSH. After they pass, the trainee need to work on safety related job for three years before they can register themselves as safety and health officer. DOSH considered SHO as their ambassador in all industries that play major role to ensure low rates of incident at workplace.

Niosh trained almost 15000 participants in this programme however there are still reports from industries lack of competent and registered SHO. According to Lee(2011) chairman of Niosh currently there are only 3000-4000 active SHO compared to high volume of SHO demand from the industry. There are around eight branches of Niosh in other state and there also almost 19 training provider. Indeed the demand are still high.

Training for OSH especially in SHO programme are challenging due to alarming numbers of occupational related injuries. The screening process for SHO participants and competent SHO has been implemented rigidly by NIOSH and DOSH to ensure that the quality of officer produced may not jeopardize the safety performance in the industries. Due to shortage numbers of SHO in Malaysian industries as stipulated in OSH act 1994, the crucial part of this programme is about training any of individual who came from various background and education level without any safety and health knowledge and credentials. To add, the participants are diverse, multicultural, multigenerations and differences of age. Yet this study attempt to review the current issues of OSHT and occupational related injuries (ORI) in Malaysian industries. On the other hand, findings of this study will be applied to strengthen the design of safety and health training specifically in SHO programme.

## **2. Literature review**

### **2. 1. Occupational related injuries (ORI)**

This section will discuss in detail elements emerge from literature review in occupational related injuries. There are seven elements identified which are differences of age, young workforce, aging workforce, multigenerations, working experience, multicultural and occupations and cognitive abilities

### 2. 1. 1. Age Differences

The evidence about the association of age with the frequency, severity and characteristics of occupational accidents has been highly contradictory. For instance, it has been shown that employees who were injured in an occupational accident were more likely to be under 30 at manufacturing (Swaen et al., 2004) and construction industries (Chau et al., 2002), and that older workers displayed fewer residual symptoms on recovery from an occupational accident than younger workers (Pransky et al., 2005). Besides, higher accident ratios have been found for younger workers in assembly, mining and food service. (Blanch, Torrelles, Aluja, & Salinas, 2009)

### 2. 1. 2. Young Workforce

Young workers, defined as workers aged 15–24 years of age, typically work temporary, part-time, low wage, non-unionized jobs in the service sector and in terms of safety are at a greater risk of workplace injury than older workers understanding (Tucker & Turner, 2011). F C Breslin, Smith, Mustard, & Zhao, (2006) indicate that young workers as those under 18 years old because child labor laws only apply to this age group. An alternative definition includes young adults up to 24 years old. This broad definition recognizes that many young adults are also just entering the labor market and are more likely than older adults to have a work injury. Consequently, the actual activities that young populations are doing in these settings and their work environments need to be better understood modified accordingly. (Bangdiwala, Runyan, & Roge, 2012)

### 2. 1. 3. Aging Workforce

As Malaysia citizen born between 1946 to 1964 reach retirement age, the demographic profile of the Malaysia population will undergo a profound change. According to the Department of Statistic Malaysia, the proportion of the Malaysia population age 60 and older have increased from 5.2 per cent in 1970 to 6.3 per cent in 2000 and has been projected to 9.9 per cent in 2020. Based on United Nation medium projection, the proportion of the Malaysia population age 60 and older will climb up to fourteen percent by 2028.

### 2. 1. 4. Multigenerations

safety training practices and challenges for organizations with employees from different generations, including the Baby Boomer Generation, Generation X, and Generation Y (Millennials). The attitudes and abilities of the generations are compared in various areas including technology, communication styles, and leadership. Suggestions are provided for training approaches for different age groups, such as structured classes, workshops, and using multimedia and mobile devices.

### 2. 1. 5. Work, skills, and experience

Young male and female workers are overrepresented in statistics concerning negative outcomes of poor work environment and risky work. Young workers often have a low awareness of risk, a lack of safety training, and inadequate introductions to the work (Andersson, Gunnarsson, Rosèn, & Moström åberg, 2014)

### 2. 1. 6. Cognitive abilities

Salthouse (2011) indicate that age differences in cognitive abilities under the age of 50 could have important implications for job performance because cognitive ability has been found to be related to job and unlike older ages a very high proportion of people within this age range are in the labor force. (Schroeder & Salthouse, 2004)

**Table 1: Summaries of elements in Occupational Related Injuries (ORI)**

Elements of ORI	Outcomes of the study	Research
Young workforce, Types of job and workplace	Job/workplace factors that are potentially modifiable: hazard exposure and work pace pressure.	F Curtis Breslin et al., (2007)
Working experience	Younger employees had an elevated risk of injury while workers >55 years had an elevated risk for fatality. A large majority of incidents involve workers with <5 years experience The injury rates found among adolescent workers demonstrate that continued safety interventions and increased training are needed. Because of high claim rate and injury severity, particular attention should be focused on adolescents in food service, manufacturing, and agricultural occupations. Understanding the differences of adolescent circadian rhythm patterns in establishing work schedules and supervisory practices could also prove valuable for decreasing injury risk.	McCall, Horwitz, & Carr, 2007  Margolis (2010)
Occupations	Risks for a fatal result of occupational injuries, adjusted by individual and occupational factors	Villanueva & Garcia, (2011)
Age	Older age at injury was related to higher injury costs but not to number of injuries. The higher injury costs associated with worker age are likely due in part to the severity of the injuries sustained by older workers.	Schwatka, Butler, & Rosecrance, (2012)
Aging workforce	Well-being of older workers if such individuals are more likely to suffer work-related health problems	Jones, M. K., Latreille, P. L., Sloane, P. J., & Staneva, A. V. (2013).
Occupations and young workforce	Injury risk among young workers, nature of work and associated exposures,	Holte, Kjestveit, & Lipscomb, (2014)

## 2. 2. Occupational safety and health training (OSHT)

The increasing trend of deaths and injuries in industries has led their authorities to develop accident investigation plans. One of the underlying aspects of such plans is hazard identification and incidents reporting which can be met by an appropriate employees' participation. So far, several studies have confirmed the effect of training design, approach, methods and instruction would impact the effectiveness of learning among the participant that this is demonstrated by the improvements of safe work which is the decreasing numbers of accidents at workplace.

### 2. 2. 1. Learning and Training

Learning is defined as permanent change in behavior, cognition and affect that occurs as a result of one interaction. Gagne suggested training can be improve relying on three learning principles; Task analysis, Component task achievements, Task sequencing.

### 2. 2. 2. Shaping learning in training

Developing and understanding of learning process in OSH training , this study used to adapt on maximizing learning concept, based on Baldwin and Ford model 1988, three primary areas emphasize on maximizing learning which are; trainee characteristics, training design and transfer of training.



***Trainee characteristics***

- *Trainability and Personality and Attitudes*

***Training design***

It is defined as adapting learning environment to maximize learning

- *Conditions of Practice and Retention*

***Transfer of Training***

- *Identical elements*
- *General Principles*
- *Stimulus variability*
- *Support in the work environment*

**2. 2. 3. *Instructional strategies***

Instructional strategies are an essential part of any training project. Some authors use the term to include everything in the training plan, from developing the course materials to choosing the assessment method. Others refer to instructional strategies as the modalities in which content is delivered and trainees are engaged in activities. (Strategies, n.d.)

**Table 2: Summaries of elements in Occupational Safety and Health Training (OSHT)**

Elements of OSHT	Outcomes of the study	Research
Training method	The objectives of this study were to characterize the performance of new employees receiving four types of training delivery methods operating a meat slicer. Safety training delivery methods included; no instruction, written instruction, demonstrations and written instruction with demonstrations. Written instruction and demonstrations was used as a delivery method, temporal performance increased, ATP-B readings were lower and participants perceived it as an effective training method. ?	(Neal, 2013)
Training approach	The “engagement hypothesis” claims that traditional classrooms are rather Results: Accordingly, based on panel data from 2003 to 2009 for a representative sample of 2,787 Chilean firms, the engagement hypothesis initially appears to be supported; however, after correcting for self- selection bias, it loses most of its significance.	(Brahm & Singer, 2013)
	The main objective of the present study was to compare two training approaches, classic and creative, in improving health, safety and environment (HSE) supervisors’ participation. Classic and creative training approaches were applied to increase supervisors’ participation. To conclude, the creative approach emphasizing on the participatory training could be an effective approach in improving the safety and consequently the health of supervisors in industries.	(Fam, Nikoomaram, & Soltanian, 2012)
Instructional strategies	Safety training is an important part of every safety professional’s daily practice. Chemical safety training course that is offered both in the classroom and on the computer. The effectiveness of safety training given different delivery methodologies, but the techniques used are relatively simple and can facilitate reductions in overall costs associated with training.	(Withers, Freeman, & Kim, 2012)
Training design	Safety training plays an important role in reducing accidents A constructivist approach was taken and the module design was underpinned by Kolb’s model of experiential learning, placing more responsibility on the learners for their own learning and encouraging them to reflect upon their experiences. The findings of this study suggest that students with prior industry machining experience required a change in their attitude to machining which was achieved within the practical labs, while students with no machining experiences were intimidated by the learning environment in the practical labs	(Stuart, 2014)



### 3. Research hypotheses

Based on the literature review, to understand the relationship between OSHT and OSH related injuries. The following hypotheses were develop to be tested. These hypotheses will be tested based on numbering system H1. This style of hypotheses statement is chosen due to the nature of answering hypotheses using structural equation modelling (SEM) methods. H1:

H1: There is a positive and direct significant relationship between Occupational related injuries and OSH training in Malaysian industries.

### 4. A proposed research model

This study aims to investigate the structural relationship between occupational related injuries and OSH training. A Proposed Research Model Based on the literature review in section 2, there are many researchers explored about ORI and OSHT. The research aims at investigate the structural relationship between ORI and OSHT in Malaysian safety and health officer training. Figure 1 presented a structural OSHA practices and OSHA performances model

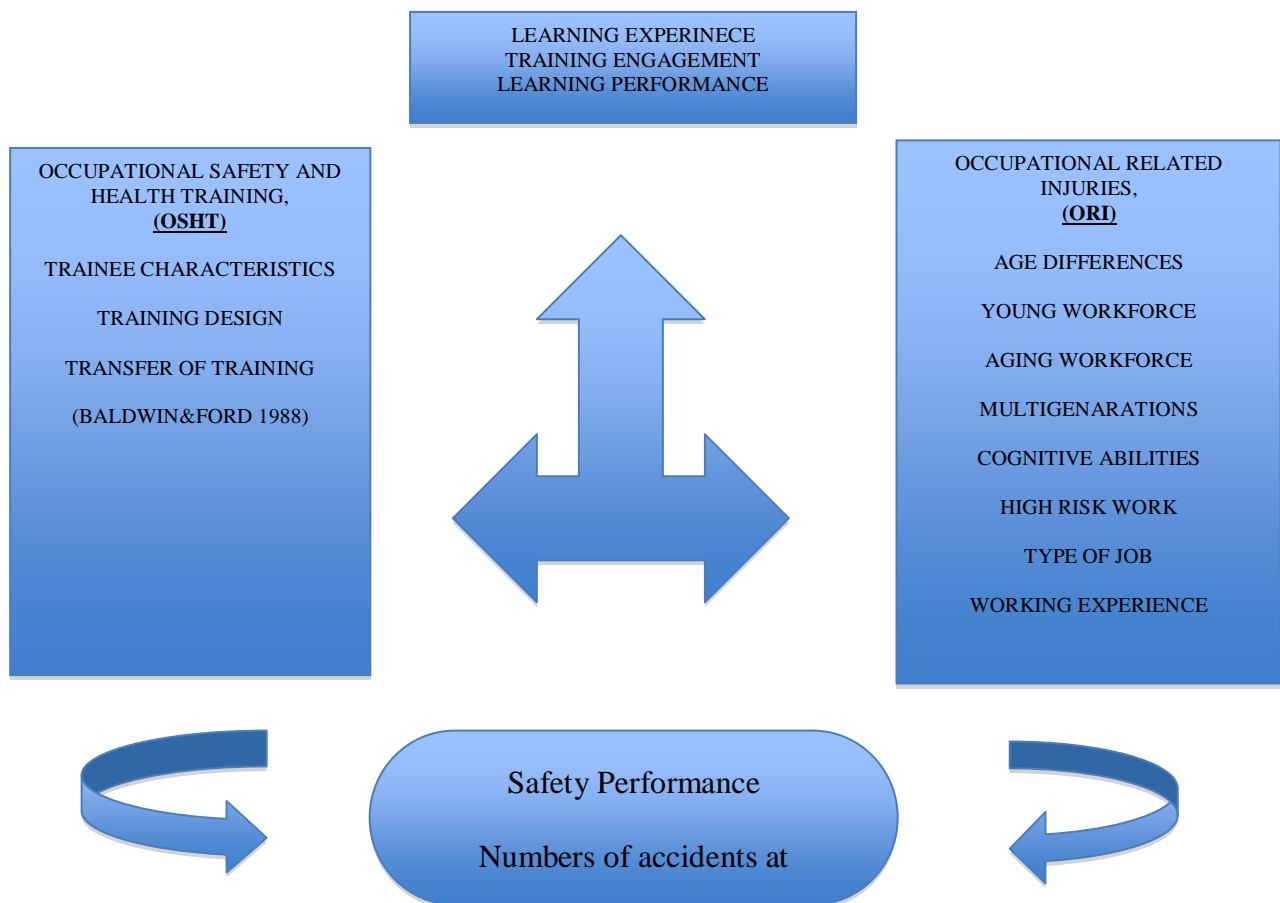


Figure 1: Proposed research model

## 5. Methodology of study

In this study, sampling method by using structured questionnaire. The population of this study comprised in Malaysian constructions industry. Questionnaires will distribute to respondents from participants of safety and health officer programme conducted by Niosh Malaysia. To analyze the data, two statistical techniques will be adopted. Structural Equation Modelling (SEM) techniques will be apply to perform the require statistical analysis of the data from the survey. Exploratory factor analysis, reliability analysis and confirmatory factor analysis to test for construct validity, reliability, and measurements loading weill be performed.. The statistical Package for the Social Sciences (SPSS) version 17 will be used to analyze the preliminary data and provide descriptive analyses about thesis sample such as means, standard deviations, and frequencies. SEM using AMOS 6.0 will use to test the measurement model.

## 6. Conclusions

The most engaging training design evaluated as the most effective training in reducing numbers of injuries. On the other hand, learning process; knowledge acquisition, mastering skills and shaping the right attitude for safety and health involve in training plays critical part to determine the successful of OSHT conducted. To summarize, this study aims to relate between elements that contribute towards occupational injuries and occupational safety and health training conducted, fill in the literature gap of engagement training while considering on trainee characteristics, training design and transfer of training.

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# The Impact of Recruitment on Employees' Job Performance. A Case Study of a Malaysian Small Medium Enterprise (SME)

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## Abstract

The objective of this paper is to examine the impact of recruitment on employee job performance. The study is carried out at Linaco Manufacturing Sdn Bhd, a Malaysian small and medium enterprise (SME). This research examined the factors affecting job performance of the employees. A set of questionnaires was distributed to 85 employees from the production units of Linaco for the survey. The statistical application used were the descriptive analysis, Pearson correlation, and multiple regression. Cronbach alpha statistic was also employed to analyze the reliability of the instrument used in this study. Based on the results, all the hypotheses developed were accepted and recruitment seemed to have contributed to employees' job performance. Thus, the study believes and strongly recommends the management of Linaco to take note and consider the various aspects of recruitment in their management policy in order to improve the employee's job performance.

*Keywords: Recruitment, job performance; Cronbach alpha statistic, human resource management*

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## 1. Introduction

This study focuses on the impact of retention strategy on employee job performance. As turnover trend intentionally have reduced the overall organization's efficiency and productivity as it diverts organization from the core objective as they need to keep replacing the employees who have tendered his resignation. There was a high annual turnover rate, which was about 17% on the year of 2003 and 16% on the year of 2004 reported by the Malaysian Employers Federation annual surveys (MEF: 2004, 2005). According to Malaysian Employers Federation (MEF) Executive Director Shamsuddin Bardan, Malaysian companies are seeing an attrition rate of between 9.6% and a phenomenal 75%, based on its survey conducted on executive positions between June 2010 and July 2011, on 143 companies across the various sectors in the country. The survey shows that the annual average turnover rate in manufacturing and non-manufacturing industry consists of 18.84% and 22.44% respectively. Shamsuddin says this amounts to additional costs for employers as they have to recruit new staff to replace those who have left (Goh, 2012). While the SMEs sector plays an important role in Malaysia, retention strategy also faces many challenges. Past studies about Malaysian SMEs have highlighted problems faced by Malaysian SMEs in general that have led to the Malaysian SMEs appearing to be less competitive (Saleh & Ndubisi, 2006) and as hindrances that prevent good job performance (Moha, 1999), (Hall, 2002) and Stuti (2005).

## 2. Literature Review

Recruitment is responsible for getting the right personnel, with proper skills, in the right place and at the right time. Such condition is imperative if an organization is to live up to the challenge. Wright, Dunford & Snell research in 2001 cited in Grobler & Diedericks, (2009) stated that competencies are not static, however, and companies need to continually develop new capabilities and competencies as the environment within which they operate changes. Such capabilities have been referred to as dynamic capabilities. Before employees can be

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recruited, recruiters must have some clear ideas regarding the activities and responsibilities required in the job being filled (Stoner et al.,1995). The recruitment procedure is such that the HRM is responsible for hiring staff. Recruitment is particularly concerned with job description, hiring specifications and position description (Stoner et al.,1995). Organizations are looking for methods to assist in making successful choices when recruiting new candidates. Recruiting can provide a large pool of applicants and selection practices can influence the quality and type of skills that new employees possess. According to Bolman and Deal (2003), strong companies are clear about the kind of people they want. As the company grows rapidly and is in the process of hiring more people, the successful implementation of a recruitment package is paramount. If the company is to succeed, the right people have to be hired for the right positions.

Gallagher et al.(2003) on the other hand notes that it is critical that a successful recruitment package be created to assist with this next phase of hiring. "Hiring drives your corporate culture. From the foregoing, it is clear that successful recruitment is critical to the future success of the HRM; therefore, it is essential that a recruitment process be designed to support the company's mission and objectives. How an organization handles the ramifications of growth is one of the more important factors in its long-term survival (Gallagher, 2003). It is critical that the HRM has an intimate understanding of which jobs are needed as well as a detailed and accurate description of the job functions. Before employees can be recruited, recruiters must have some clear ideas regarding the activities and responsibilities required in the job to be filled. One that has been done and analyzed, a written statement of content and location is incorporated into the organization chart. This statement is called either a job description or position description (Stoner et al.,1995). Sources of recruitment are diverse and are depended on the availability of the right kind of people in the labor pool and the nature of the job.

### 3. Methodology

#### 3.1. Research's hypotheses

Based on what have been recorded in the literature, this study has developed two hypotheses in examining the relationship between recruitment and employees' job performance. The hypotheses are as follows

*H1*: There is a relationship between recruitment and employee job performance

*H2*: There is an impact of effective recruitment on employee job performance.

#### 3.2. Research framework and research design

The research framework for this study involved 2 main variables consists of independent variable which is the recruitment and the dependent variable which is employee job performance. This face-to face survey is conducted at Linaco Manufacturing (M) Sdn Bhd to the responsible respondents from all production units. The company's

HR Management was first consulted for their approval for the survey exercise. A set of questionnaires is distributed with the support of the company management to these employees. Initially the questionnaire was formulated to determine the staff perception. Each set contains 40 short graded questions that can be answered within 10-15 minutes as part of company condition for the study approval in order to minimise work downtime. The baseline covers on gender, educational background, age, term of employment, work position, department, type of paid salary, race and monthly paid salary range.

#### 3.3. Population and sampling techniques

Total of population of production workers of Linaco Manufacturing (M) Sdn Bhd consists of 103 workers who are working in the respective 4 sections of production units. The sections involved were Canning Section, Packaging Section, Kernel Section and Coconut Milk Sections. Out from 103 workers, only 85 respondents were selected or (82.52%) from the total production workers by using random sampling. According to Hair and Bush (2006), target population is said to be a specified group of people or object for which questions can be asked or observed made to develop required data structures and information. The percentage of response rate in

extremely important in a survey because it indicates how much bias there might be in the final sample of respondents. The lower response rate, the greater the likelihood that such biases may distort the findings and in turn, limit the ability to generalize the findings to the population of interest. A response rate of about 50% is generally considered adequate for survey research, 60% is considered a good return rate, and 70% is very good (Babbie, 1995).

#### 4. Data Analysis And Result

It can be seen from Table 1 that 43 (50.6%) of the respondents were male and 42 (49.40%) were female. 57 (67.10%) education level of the respondents were O-level, 20 (23.50%) were certificate holders, 4 (4.70%) were diploma holders and 4 (4.70%) of them were degree holders. From this table, out from the 85 respondents, 24 (28.20%) of them aged between 18- 25, 30 (35.30%) aged 26-30, 9 (10.60%) aged 31-35, 14 (16.50%) aged 36-40, 4(4.70%) aged between 41-45, and 4(4.70%) aged above 50. The average age of the respondent is relatively young with 63 (74.11 %) of the respondents were below 35 years old. Table 1 also shows that 19 (22.40%) of them were employed less than 1 year, 34 (40.00%) employed between 1-2 years, 19 (22.40%) employed 3-5 years, 6 (7.10%) employed between 6-10 years and 7 (8.20%) employed more than 10 years. It can also be seen that there is quite high employee turnover rate as indicated by 53(62.40%) of the respondents having served the company of less than three years despite the fact that the company has been operating for more than ten years. As can be seen in Table 1, the distribution of respondents' salary, out from the 85 respondents, 27 (31.80%) of them were paid less than RM900 per month, 33 (38.80%) paid RM900-1249 per month, 20 (23.50%) paid between RM1250 to RM1499 per month, and only 5 (5.90%) paid more than RM1500 per month. The survey revealed that the average salary of the respondents is relatively low whereby 60 (70.60%) of them receive RM1249 per month or less.

Table 1: Respondents' Demographic Analysis

	Frequency	Percent	Range
<b>Gender</b>			
Male	43	50.6	
Female	42	49.54	
<b>Education</b>			
O-Level	57	67.1	
Certificate	20	23.5	
Diploma	4	4.7	
Degree	4	4.7	
<b>Age</b>			
18-25	24	28.2	
26-30	30	35.3	
31-35	9	10.6	
36-60	14	16.5	
41-45	4	4.7	
50 above	4	4.7	
<b>Employment period</b>			
Less 1 year	19	22.4	
1-2	34	40	
3-5	19	22.4	
6-10	6	7.1	

More 10 yrs	7	8.1
Salary		
Less RM900	27	31.8
RM900-RM1249	33	38.8
RM1250-		
RM1499	20	23.5
RM1500 above	5	5.9
	85	100

#### 4. 1. Reliability Test

Table 2 shows the Cronbach's alpha for recruitment instrument is  $\alpha=.538$ , and onTable 2, the Cronbach alpha for Job Performance instrument is  $\alpha=.811$ , and therefore acceptable for the purpose of analysis (Sekaran, 2005).

Table 2: Cronbach's Reliability on Recruitment

Cronbach's Alpha	N of Items
.538	4

Table 3: Cronbach's Reliability of Job Performance

Cronbach's Alpha	N of Items
.811	23

#### 4. 2. Descriptive Analysis on Recruitment and Employee Job Performance

Employees perception of Linaco's HRM practices on employees' job performance on Table 4 shows that the mean score for recruitment is 3.4834. The survey revealed that the mean score for job performance is 3.6784 and is relatively moderate.

Table 4: Mean statistics of recruitment and job performance

		MeanR	MeanJP
N	Valid	85	85
	Missing	0	0
Mean		3.4834	3.6784

#### 4. 3. The Impact of Recruitment on Employees' Job Performance

Multiple regression analysis was used to examine the impact of recruitment on employees' job performance. Result of the multiple regression analysis in Table 5 shows that recruitment contributed 24.5% to employees' job performance. Thus, it can be concluded that effective training practices lead to employees' job performance. Therefore, the research's hypothesis is also accepted.

Table 5: Model Summary

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate
1	.495 <sup>a</sup>	.245	.217	2.67999

<sup>a</sup> Predictors: (Constant) Recruit

#### 4. 4. Anova results

The ANOVA results statistic F(8.763) in Table 6 has revealed a positive and significant correlation between recruitment on employees' job performance.

Table 6: ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	188.817	3	62.939	8.763	.000 <sup>b</sup>
	Residual	581.771	81	7.182		
	Total	770.588	84			

<sup>a</sup>. Dependent Variable: Job Performance

<sup>b</sup>. Predictors: (Constant), Recruitment

#### 4. 5. Coefficient Results

Beta coefficient in Table 7 shows that recruitment strategy is the contributor to employee's job performance based on the perception survey of  $\beta=.217$ , therefore, if the company increases one unit of recruitment strategy, employee job performance will increase by 0.4 unit.

Table 7: Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients		
1	(Constant)	11.609	7.448		1.559	.123
	Recruit	.276	.132	.217	2.084	.040

<sup>a</sup>. Dependent Variable: Performance2

### 5. Discussions

#### 5. 1. Employeeperceptions in regards to recruitment at Linaco Manufacturing (M) Sdn Bhd

The finding shows that the employees perceived the recruitment as practiced by Linaco as moderate. From the survey based on recruitment, the employees on one hand expect much better efforts to improve their job performances and they are aware of the strength and weakness of the function of Linaco's recruitment. It is no doubt that the recruitment practices adopted by Linaco is of a moderate quality, which helped the company to reach where it stands now and may continue its contribution to Linaco in future. But in the small medium enterprises (SME), developments in different areas taking place continually and it is no exception for recruitment practices. With the changing world, the perceptions of the employees are also changing. Now they look at a job from different dimensions. Across the time their demands get a diversified shape.

#### 5. 2. The Level of employee's job performance

The success of any organization mainly depends on the level of the employee's job performance. The firms, whose employees are performing in its full efficiency level, are working as comparative advantages. Employees of an organization play the key role for performing better and better. Human resources management practice is the key tool to improve the level of employees' job performance. According to Caliskan (2010) competitive



advantage of an organization can be achieved by the HR practices. It is assumed that recruitment has a significant and positive relation with the performance level of employees. Organizations are improving HRM systems to ensure optimum level of employees' performance in order to achieve its profits. Datta et al. (2003) mentioned that there is a highly positive correlation between the levels of employees' performance with HR practices namely recruitment and firm efficiency. From the literature review stated earlier in this study, lots of researchers have identified several recruitment practices that considerably talk into level of employee's job performance. So it can be said, a useful service of those specific practices consequences in high performance from corner to corner of all nature of organizations. Several researchers opined that performance evaluation has a strongly positive relationship with the level employee job performance (Baloch et al., 2010; Becker & Huselid, 1997) and when an employee is evaluated as excellent means he is performing strongly and when an employee is ranked as poor rated means he is performing weakly.

### 5. 3. The Relationship between Recruitment and employees' job performance

The results of this study shows that there is a significant relationship between recruitment with employees' job performance. This finding is consistent with studies conducted by Jackson & Schuler (1987) which also found significant relationship between effective recruitment and employee job performance and job satisfaction. This means that effective recruitment practices lead to employee satisfaction and job performance. From this study, it is apparent that the manpower of all the departments of Linaco must be staffed and properly selected so that the available skills and abilities are equated with the various tasks in the production units. Therefore, the area of recruitment is becoming more important and is growing rapidly in which no doubts the production units of Linaco should carefully consider as a matter of priority. In the study, it has been revealed that recruitment methods is related with the employee job performance as it will help the HR Department reflect and revise on policies of recruitment. It is now apparent that innovative of recruitment practices is necessary to enable Linaco to remain competitive and provide efficient services. It is evident from this research that to address this problem, Linaco introduces a moderate recruitment method as perceived by respondents. According to some researchers and scholars, numerous benefits can be derived from these practices, not only for the company, but also for the employees as well as. Stoner et al. (1995) stressed in their conclusion that before employees can be recruited, recruiters must have some clear ideas regarding the activities and responsibilities required in the job being filled and recruitment is particularly concerned with job description, hiring specifications and position description. As for the employees, the implementation of these practices can lead to higher productivity, increased morale, lower absenteeism and most importantly, lower turnover.

### 5. 4. The impact of recruitment on employees' job performance.

Yogevaran (2005) found that there is a serious problem in the majority of the SME firms surveyed in Malaysia and supported the notion that job performance of employees in the service sector SMEs tend to be low due to lack of right skills (Saleh & Ndubisi, 2006) which may affect the ability of the employees to deliver the expected standard of job performance. The study on the impact of recruitment on employees' job performance at Linaco revealed that the employers tend to have high expectations concerning employee job performance by continuously monitoring the job performance of the employees through various performance management activities as earlier mentioned by Dessler (2011). Thus, having the right workforce doing right job, and well equipped with the right skills with good recruitment strategies lead towards improving employees' job performance.

## 6. Conclusion

The rationale of this study is to examine the relationship between the recruitment practices strategy in the production units of Linaco. All hypotheses are accepted. The recruitment practices and employee job performance has positive and significant relationship in this study. These results are accordance with the scholars' previous studies. The regression results show that recruitment strategy is significant. Employees are the key players for the organization and SMEs' development. Since employees are one most important resources,

the HR Dept. of Linaco should re-examine their existing recruitment practices. A lucrative recruitment methods and strategy motivates employees quicker than others. It accelerates employees job performance in the long run. As there are pressures exist in the rising economy of Malaysia, the company should adjust salaries and others financial incentives of the employees time to time.

This study can facilitate Linaco as well as other small medium enterprises(SMEs) to appropriately consider that recruitment practices can generate higher job performance of the employees. For the employees, adoption of this practices can lead to higher productivity, increased morale, lower absenteeism and most importantly, lower turnover. There is no doubt that there have been major changes in the world of work and those who work in it. Companies worldwide are often faced with three generations of employees (viz baby boomers, generation X's and generation Y's), each with their own particular set of demands (Brown, 2009). Therefore, the function of recruitment in human resources management practices are becoming more important and is growing rapidly which have no doubts the company should carefully consider as a matter of priority. Gen Y plays an important role in the future development of Linaco. Because of more work experience and better education, Gen Y workers are more mobile, move easily from one employer to another if they are unhappy with the work. To retain these workers, HR manager with the collaboration from all of the head of the departments need to do a better job in recruiting and development career opportunities. To mitigate the challenges faced by the small medium enterprises(SMEs) in Malaysia, it can be concluded that the SMEs should seriously consider expanding and enforcing the use of recruitment practices across all its departments as numerous benefits accrue to the Ministry, the employees and the larger community it is mandated to service.

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# Implementation of Family Friendly Policies in Malaysia on Student Entrepreneurs

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## Abstract

This study will conducted to identify the factors of implementing family friendly policies to support the extensive implementation of family friendly policies in Malaysian Hospital. Policy practices in federal government will examined through document analysis and interview with government officer. Data from private and government hospitals in Klang Valley will gather using questionnaire.

*Keywords:* Family friendly policies; human capital; work life balance; work life conflict

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## 1. Introduction

The Malaysia Government has formulated various development policies for holistic human capital development for better quality of life. Some example of policies is the National Family Policy, National Social Welfare Policy, National Policy on Women, National Social Policy and National Child Policy. Through these policies, support for family well- being and social stability are implied.

With the changing demographics and the increase in dual-earner families, employees are increasingly having to juggle and balance both work and family responsibility as well as deal with job-related demands that could place strains and stress on the execution of family roles. With responsibilities for multiple roles, employees are more likely to experience inter role or work-family conflict involving dissenting demands (Aminah & Maznah, 2003). Researchers have documented the experience of work-family conflict among employed women and men, and have provided evidence of adverse effects of such conflict on their well-being in both work and family domains (Aminah, 2004; Spector et al., 2002). As employees increasingly face challenges in balancing work with family commitments, the workplace must provide support and practical solutions to their stressful lives. The government could also play a part by assisting organizations that are willing to implement such policies in areas such as providing guidance or counselling, tax relief and other monetary incentives.

According to Kwong & Lee (2008) to attract or retain productive employees, organizations need to look into implementing human resource policy changes, especially family friendly ones or risk losing their precious human capital to more understanding organizations (Kwong & Lee, 2008). Organizations should review their human resource policies with a view to integrate more family friendly practices to provide for their employees' needs. Family friendly policy is defined as institutionalized structural and procedural arrangement as well as a set of formal and informal practices aimed to design, create and maintain family friendly work environments that allow individuals to balance their work and family duties within their workplace (Darch-Zahavy & Somech, 2008).

In particular, the work environment constitutes an important factor in the recruitment and retention of health professionals, and the characteristics of the work environment affect the quality of care both directly and

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indirectly. However, the health sector is very concerned about developing a more friendly work environment because of the large number of female employees (WHO, 2010). By promoting work life balance, more can be done to improve quality of the work environment in the health professions (WHO, 2010).

## 2. Problem Statement

The phrase "family friendly policy" (FFP) has increasingly become a popular issue of discussion and of particular interest especially among female employees. Participation rate of female workers was estimated at 39.4% in 2006 (Kwong & Lee, 2008). It has increased to 47.9% in 2011 and is targeted to achieve 55% under the 10th Malaysia Plan (PEMANDU, 2013). Family friendly policies are a way to support and recognize the changing needs of employees at different points in their careers and lives. The challenge for organizations is to provide a better workplace for employees by recognizing and reducing unnecessary burdens on employees' family life (Kwong & Lee, 2008). Demanding workload among health workers likely to make them experience exhaustion and fatigue, which may negatively influence their motivation to respond to the demands of the other domains such as family as argued by Aryee et al. (2005). According to Abd Razak et al., (2011) work family conflict is assured to be a common phenomenon among doctors in Malaysia.

Health workers are exposed to a broad range of occupational health risks because of the nature of their work and many health workers move to where they can find better conditions for work and life (WHO, 2010). In the Malaysia Economy Transformation Program one of the NKEA identified is the healthcare sector which was targeted "based' on their potential to contribute to GNI and create multiplier effect cross the economy" (JPM ETP, 2012). In Malaysia based on the research findings, there are many organizations, especially in the private sector that have not fully implemented FFP. There is evidence that there are some FFP practices implemented although these are more evident in the government sector rather than private organization (Aminah, 2011). Kwong & Lee (2008) found less than of organizations had provided flexible working arrangement; less than 20% provided child care facilities although more than 80% had acceptable wage and benefit scheme in terms of mandatory maternity leave. Subramanian et al (2010), found that there is an increase the number of women in workforce but there is also a lack of awareness and urgency among employer on what are the practical needs of employees. In another survey (The Malaysian Reserve, conducted by the Malaysian Employer Federation (MEF) on 199 companies, they found that only 12% of Malaysian Companies had flexible working arrangement (FWA) when compared to the Multinational Companies in which FWA was common. Realizing the importance for workplace reform, the Malaysian Women's Summit in 2007 and 2008 highlighted the urgent need for more FFP at the work place. There is a need to understand what are the factors that will encourage the Malaysian organizations to put into place a more wide ranging Family Friendly practices.

## 3. Methodology

The Malaysian government is committed towards holistic human capital development and the study will identify factors that promote the implementation of FFP. The research will provide information about factors to support wider implementation of FFP in Malaysian hospitals that will contribute to work life balance. The study will employ sequential mixed method approach (Creswell, 2003). It will be conducted in two phases. In phase one, qualitative data collection and analysis, using individual and focus group interviews, will explore the issues related to the implementation of family friendly policies in the organizations. In phase two, data will be collected quantitatively. Based on the findings from Phase one, a survey questionnaire will be designed, questionnaire will used in this study as the instrument to collect the data. The questionnaires, then will be distributed to the respondents, The respondents will be human resource officers or top management in selected Malaysian hospitals from Government and private sectors.

The population in this study will consist of employers from private and Government Hospital in Kuala Lumpur, Putrajaya and Selangor. The qualitative data will be analysed to get meaningful data chunks. Data will be

grouped and regrouped until various categories can be formed by using constant comparative method. Data will be organized and managed by using NVivo software. Quantitative data will be analysed by using SPSS package, which will carry out confirmatory factor analysis. Factor analysis is a multivariate statistical procedure that has many uses which is, factor analysis reduces a large number of variables into a smaller set of variables (factors of implementation of FFP), underlying dimension between measured variables and latent construct, thereby allowing the formation and refinement of theory and provide construct validity evidence of self-reporting scales ( Williams, 2012).

#### 4. Theoretical framework

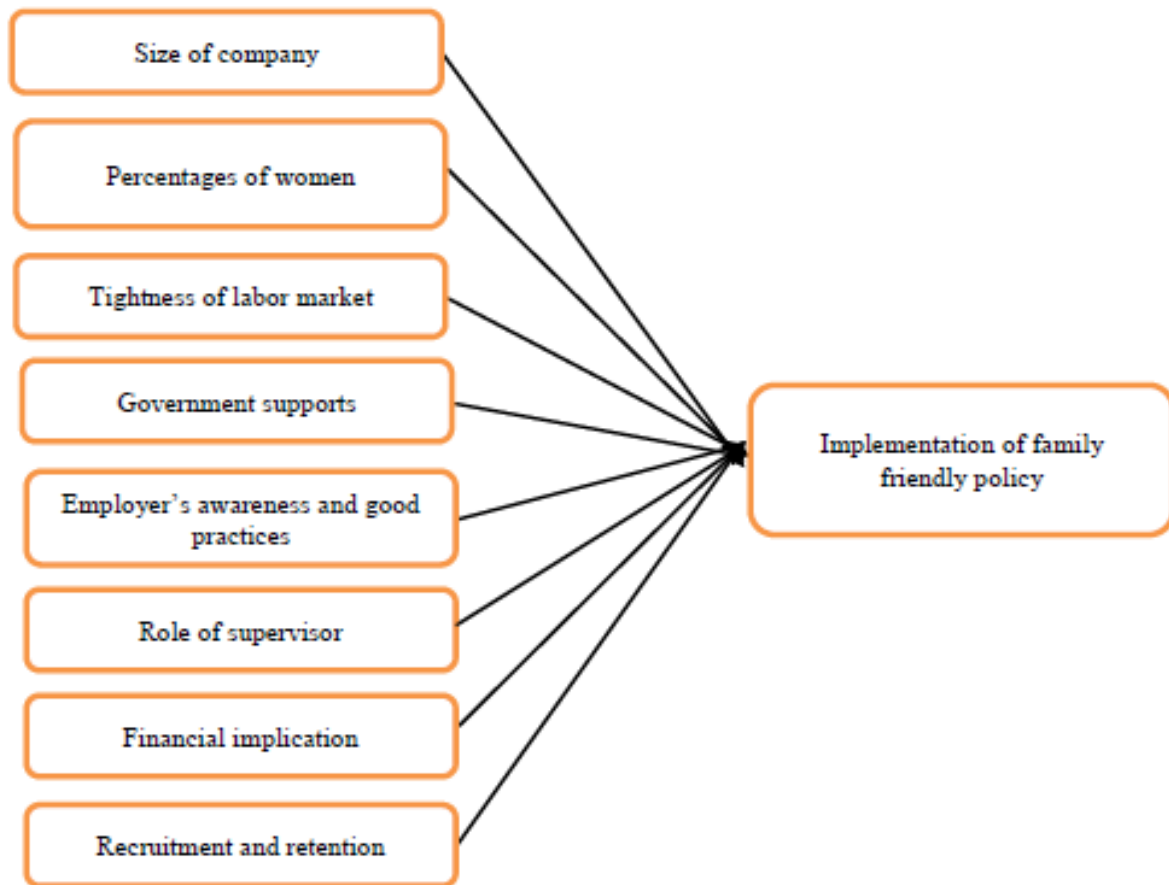
Several theories were used by work-family scholars to explain the reasons organizations adopt FFP such as the Institutional Change Theory and Rational Choice Perspective (Thompson, et al., 2006; Appelbaum, et al., 2005; Sutton & Noe, 2005; korpa, 2011).

Rational Choice Perspective explains implementation of FFP in organizations using the assessment of contributions and gain and the calculation of profit and cost. Organizations will implement and maintain the FFP in their workplaces if the gain is bigger than the contribution. Rational Choice perspective focuses more on the internal environmental factors of an organization, The rational choice theory suggests that employees will adopt family friendly policies outside what is legitimately required of them if the benefits of doing so surpass the costs (Appelbaum, et al., 2005). The benefits considered may not be in terms of direct financial returns, but be based on efficiency considerations. When organizations adopt FFP it will help employees to manage their work and personal lives (Appelbaum, et al., 2005). This may enable employers to easily recruit and retain productivity employees, may reduce lateness, unplanned absences or even unapproved absences and may encourage employees to put extra effort beyond what is required in their job description (Appelbaum, et al., 2005). In this way FFP may enable organizations to protect their investments in employee skills and knowledge and may produce greater performance for the company (Appelbaum et al., 2005).

There are three types of factors distinguished in Institutional Change Theory which are normative, mimetic and coercive factors. Institutional theory defines how organizations adopt policies and practice in response to pressures on them from forces in the institutional environment such as state regulations, societal and professional norms and expectations (Thompson, et al, 2005). Normative pressure, mimetic pressure and coercive pressure are the three pressures organizations will experience (Sutton & Noe, 2005). Normative pressure recommends that internal groups insist the organization adopt a specific FFP in order to make the organization legitimate (Sutton & Noe, 2005). Mimetic pressure cause organizations to change as a result of imitating a competitor and the organization seeks legitimacy by mimicking successful competitors (Sutton & Noe, 2005). According to Appelbaum et al., (2005) studies have reported that if certain workplace policies have become widely established in a particular organizational field or industry, other organizations will be under institutional pressure to respond similarly to their environment. Finally, coercive pressures are usually government mandated rules that force organizations to adopt or review their FFP. In this regard, the pressure often comes in the form of laws (Sutton & Noe, 2005). The implementation of FFP can take place without deep persuasion of the management of their effectiveness and chances to improve the economic indicators of an organization (Wood S et al.,2010).

#### 5. Conceptual framework

Based on previous study we identify eight factors that can influence the implementation of family friendly policy practices which is size of company, percentages of women, tightness of labor market, government supports, employer's awareness and good practices, role of supervisor, financial implication and recruitment and retention. From the eight factors we come out with conceptual framework for this study.



## 6. Conclusion

The findings of previous research have indicated that there still exist an execution gap in terms of the full implementation of FFP in various organizations in the government and private sectors in Malaysian. Thus, there is a need to find out what are the issues pertinent to the employers and the organizations in implementing FFP. However, what factors and support is required to encourage employers to fully implement FFP has to be examined so as to enhance implementation of wide ranging family friendly practices.

## Acknowledgement

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# The Influence of Knowledge Management on Organizational Learning and Its Effect Towards Organizational Effectiveness at Hotel Cemerlang –Bandung

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## Abstract

At the era of the global competition, Knowledge Management (KM) hopefully could provide sufficiently significant contributions to human resources, particularly among the hospitality world. This research is aimed at measuring the influence of knowledge management on the performance of the employees using case studies at Hotel Cemerlang Hotel-Bandung. The benefit of KM in providing access to desired information for better doing the job than the previous time becomes the main strategic source to Organizational Learning (OL). This study produced several findings, all of which were (1) KM positively influenced OL; (2) KM positively did not influence OE; (3) OL positively influenced OE; (4) KM positively influenced OE through OL. Therefore, it is suggested that Hotel Cemerlang-Bandung be more concern with the conversion process of knowledge by providing best support to the desired sources as well as protection to innovative ideas, involvement of the employees in decision-making process, and systematization of learning activities into vivid and structured procedures or action standards.

*Keywords:* Knowledge Management, Organizational Learning, Organizational Effectiveness.

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## 1. Background

Hotels as one of the service industries providing accommodation has experienced great development these days there have been hard competition in this industry. At time of crisis such as now experienced, many are aware of the demands to have capabilities in a quality human resources development planning. In the effort to make this planning, the management, especially the management in hotels could have a try to make some internal improvements that is to run some performance appraisal. According to Rivai (2005), performance evaluation, also known as the performance appraisal, or performance rating, performance assessment, or employee evaluation, or merit rating, or efficiency rating, service rating is basically a process that a corporate uses to evaluate job performance. When applied appropriately, it could generate an important benefit for the workers Human Resources Department, as well as for the hotel itself.

Furthermore, workers' performance would be at a more optimum point when supported by the knowledge available. Every employee is supposed to build up their knowledge and not to depend and stick to an existing system. It could be said that every employee has his own role in enhancing the performance of the corporation. As stated by Fatwan (2006), the factor influencing the business environment these days is that because it is not information era anymore, but that it has changed to the era of knowledge or science.

Based on a resources oriented view, an organization gets and supports its competitive advantages by the distribution of resources (Liao and Wu, 2009). Resources Based View (RBV) suggests that the competitive advantages and the achievement are the consequences of the organizational source and specific capacity that needs higher cost for the competitors to imitate (Theriou and Chatoglou, 2008). Knowledge Based View (KBV) is the centre of RBV (Conner and Prahalad, 1996 in Zheng et.al.). In this view, an organization that has a stock of knowledge is characterized as idiosyncratic (to be different from others), providing a good opportunity for the implementation and supportive for the high result (Theriou and Chatzoglou, 2008).

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Knowledge or science has great potential to contribute for organizational value in improving the capabilities to respond to a new situation which rarely happens (Choi, 2008). Knowledge Management relates to strategy and process of identification, grabbing the influence of knowledge to support the organization in the competition in the struggling business environment. The *Economist Intelligence Unit* concludes that Knowledge Management would be one of the main streams in business that is influential up to 2020 (Bartholomew, 2008: 20).

The role of Knowledge Management (KM) is to develop asset of strategic knowledge to construct basic competence which is in line with the business strategic field (Maier and Remus, 2001). Knowledge Management could give access to needed information to do some work better than what had happened in the past.

In this case, Knowledge Management does not answer to the problem, but it facilitates the will to learn about the answer (Call, 2005). When an individual learn something, he will get to the knowledge that have been deposited in his personal memory and use it for the rime being as a base for a new knowledge transformation (Aggestarm, 2006). Learning is an individual and organizational process to get new knowledge in facing the environmental change. The process of learning does not only deal with the development of vision which is based on the understanding of the organizational value system (Trim and Lee, 2007). An organization that will surely be counted for in the future will organization that range into how to ask commitment and capacity of human resource to learn at all levels in an organization. From the point of view of Knowledge Management, all levels of learning are important and should be kept and should become the natural part of culture (Bennet, 2003).

Recognized the existence of the phenomenon of Hotel Cemerlang-Bandung doing a breakthrough by applying knowledge management (KM) to employees. According to the management of Hotel Cemerlang-Bandung, knowledge management is applied to the Hotel Cemerlang-Bandung is divided into two, namely, tacit knowledge and explicit knowledge. The first is the individual knowledge gained from everyday experience, which is difficult to be duplicated and taught to others in which the authors categorize knowledge in the form of individual or personal knowledge. Secondly, knowledge can be transformed between individuals, making them easier to be described in the document, practice, training, etc.

This study adopted the opinion introduced by Loermans (2002), that the creations of the structure of organizational learning of an organization that develops and distributes knowledge form the beginning of Learning Organizational. Teresa and Adelino (2008) stated that the perspective of Organizational Learning was the source of a competitive advantage as a consequence of the vision that transformed an organization into a new form or a new type of organization. Therefore, the term Organizational Learning that is used in relation to the process needed to make an organization a Learning Organization. By Adopting an Organizational Learning approach the top management could put a number of systems and structural management that facilitate decision making process.

## 2. Problem Formulation

This study is based on the belief that KM has greater effect to OL, neglecting the belief that OL causes KM. With regard to the achievement of Organizational Effectiveness (OE), knowledge and continuous learning process are undoubtedly needed. As a consequence, the concepts of KM and OL play an important role to the achievement of OE. This study is based on the different view in literature to the result of the study discussing the following concepts: the effect of KM to OL, KM to OE, and OL to OE with the interference of OL as the mediator in studying the relationship between KM and OE. Based on the above background, the problem formulation can be stated in the research questions as follows:

1. Does Knowledge Management influence the Organizational Learning?
2. Does Knowledge Management influence the Organizational Effectively?
3. Does Organizational Learning influence the Organizational Effectiveness?
4. Does Knowledge Management influence the Organizational Effectiveness through the Organizational Learning?

### 3. Methodology

Research type used in this study is the explanatory research with quantitative methods. The population in this study were all employees of Cemerlang Hotel in Bandung, West Java amounting to 63 people. Regarding the relatively small population size, i.e. below 100, then all members of the population is taken as the sample of research. Research that makes all members of the population sampled is referred to as population or census research (Supardi, 2005: 102). Data were obtained from questionnaires used for descriptive data analysis with path analysis to answer the research questions.

### 4. Result & Discussion

#### 4.1. Calculation of Path Coefficient

On a column analysis, beside direct influence there are also indirect influence and the total influence. The Beta coefficient in this research was the coefficient of the direct influence. The estimation of the parameter was done by regression analyses. The result of the regression analyzes on each equation is partially based on output of SPSS could be analyzed as follows:

- a. Regression of the first equation

$$Y = PX + e1 \quad (1)$$

The result of the first equation is exhibited in the following table:

Variable	Unstd. Coefficient	Std. coefficient		T	Sig.
KM	B	Std Error	$\beta$		
KM	0.918	0.074	0.864	12.369	0.000
R = 0.864 R square = 0.741 Adjusted R Square = 0.741					

The influence of error for the first equation is defined as follows:

$$\begin{aligned}
 Error(\varepsilon) &= \sqrt{(1 - R_t^2)} \\
 &= \sqrt{(1 - 0,746)} \\
 &= 0,254
 \end{aligned} \quad (2)$$

The model for the first regression is as follows:

$$Y_1 = 0.864X + 0.254 \quad (3)$$

b. The Regression of second equation

The result of analyses of the second equation regression is shown in the following table:

Variable	Unstandardized coefficients		Standardized coefficient	t	Sig.
	$\beta$	Std.Error	$\beta$		
KM	0,223	0,213	0,216	1,045	0,301
OL	0,461	0,201	0,474	2,296	0,026

R = 0,669  
R Square = 0,448  
Adjusted R Square = 0,427

The influence of error for the second equation is defined through:

$$\begin{aligned} \text{Error} (\varepsilon) &= \sqrt{1 - R_i^2} \\ &= \sqrt{1 - 0,448} = 0,552 \end{aligned} \quad (4)$$

Model of regression of the second equation is as follows:

$$Z = 0,216X + 0,474Y + 0,552 \quad (5)$$

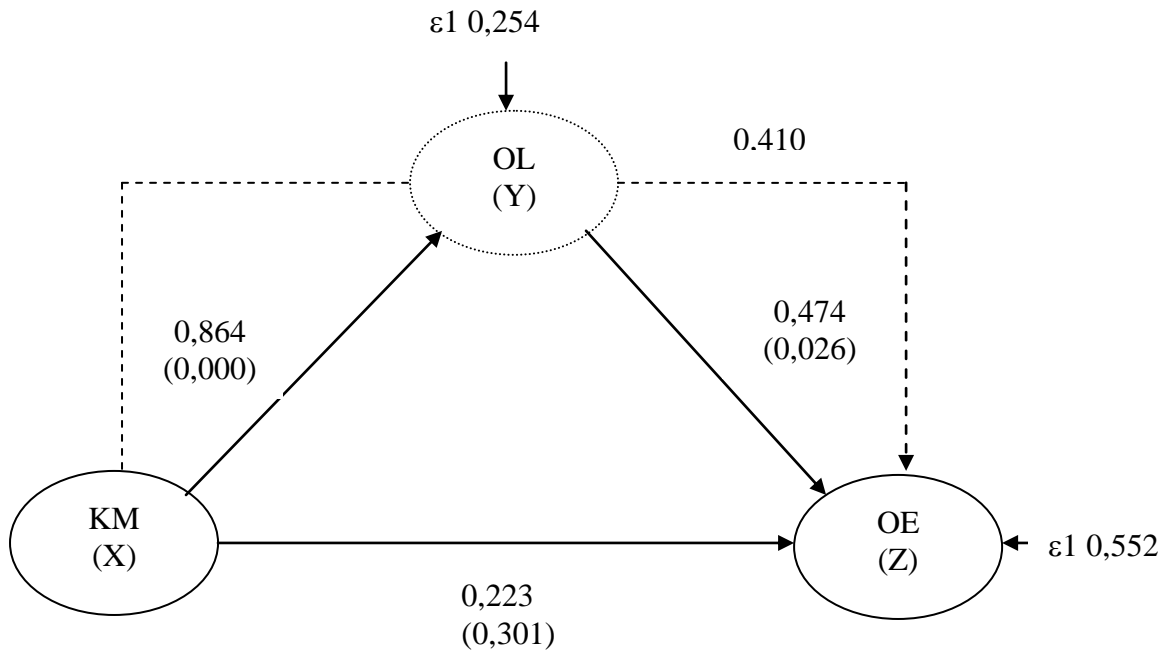


Fig. 1. Model of Regression

#### 4. 2. Relation between Knowledge Management and Organizational Learning

The relation between Knowledge Management (X) and Organizational Learning (Y) indicated that the value of P (P-value) was less than 5% (0.000 < 0.05) and the Column coefficient was 0,864. This meant that Knowledge Management variable had a direct influence, had the same direction (positive), and was significant towards OL variable. Thus, the first hypothesis was “accepted”.

This finding stressed the relation that stated Knowledge Management was a previous part of Organizational Learning, or in other words, that Knowledge Management Was the cause of Organizational Learning. This research was supported by empiric research of Yang 2007) that stated that there was a positive relation between knowledge sharing and Organizational Learning. Besides, this finding was also supported by the research of Liao and Wu (2009) and Liao and Wu (2010) that revealed that business with more Knowledge Management showed higher capacity in increasing Organizational Learning.

#### **4. 3. The relation between Knowledge Management and Organizational effectiveness**

Knowledge Management positively influences the relation between variables of Knowledge Management (X) and Organizational effectiveness (Z) indicated that P bigger than 5% ( $0.301 \geq 0.05$ ) and the column coefficient of 0,223. This meant that Knowledge Management variable did not significantly influence the variable of Organizational effectiveness. Thus, the second hypothesis was unacceptable.

This finding was different to the findings of Zheng's research (2009) that revealed that Knowledge Management significantly related positively to Organizational effectiveness. This research also gave result that were different to this research also gave result that were different to Yung research 2007) which indicated that there was a positive relation between Knowledge sharing and Organizational Learning in his research dealing with industry in Taiwan. It was also different from the research of Lee et.al. (2007) that indicated Knowledge Management capabilities had significant influence on innovation and Organizational effectively. This indicated that the respondents had not comprehended the existence of the role of Knowledge Management in achieving Organizational effectively directly.

#### **4. 4. The relation between Organizational Learning and Organizational effectively**

The relation between variables of OL (Y) and OE (Z) indicated that value of P hat is less than 5 % ( $0,026 \geq 0.05$ ) and the column coefficient of 0,474. This meant that the variable of Organizational Learning had a direct influence, having the same direction (positive), and significant towards the variables of Organizational effectively. Thus, the third hypothesis was "accepted".

The third hypothesis stated that Organizational learning positively influence Organizational effectively had been proved accepted. This research was in line with Yang (2007) that revealed there was a positive relation between knowledge sharing and Organizational Learning in Organizational effectively. The research of Aydin and Ceylan (2009) also revealed that Organizational Learning Capabilities could explain 65 % of the total variance of Organizational effectively.

#### **4. 5. The relation between Knowledge Management and Organizational effectively through Organizational Learning**

Knowledge Management Knowledge Management positively influenced Organizational effectively through Organizational Learning. This hypothesis indicated that the relation among its informative variables was indirect. The indirect influences were significant when all formative direct influences were significant. In the case when a single direct influence was signified insignificant, then the indirect influences were labeled insignificant. As explained previously, the direct influence of Knowledge Management(X) variables towards OL(Y) variables were positive 23 and significant. So was the direct influence of Organizational Learning (Y) variables towards Organizational effectively (Z) variable indicated positive and significant result. The value of multiplication of the coefficients column of these two relations was 0.450 which meant a positive direction. Thus the statement of the fourth hypothesis was then surely "accepted".

## 5. Conclusion and Recommendation

### 5.1. Conclusion

Based on the result of discussion in this research, some conclusion could be driven as follows:

- a. The activities of Knowledge Management could surely enhance the process of Organizational Learning. The efforts to enhance Organizational Learning at Hotel Cemerlang-Bandung could be carried out by the application of practical Knowledge. The learning and past experience could certainly be useful in new problem solving.
- b. Activities of Knowledge Management could not directly influence Organizational effectively. This meant that at Hotel Cemerlang-Bandung, Organizational effectively could not be achieved with only applying practical Knowledge Management.
- c. The process of Organizational Learning could directly enhance the Organizational effectively. The Hotel Cemerlang-Bandung needed the process of Organizational effectively the process of Organizational Learning to achieve the Organizational effectively. Understanding the vision and mission as well as supporting the strategy could increase the workers' commitment in achieving the goal of the organization.
- d. Organizational effectively indirectly relate to Knowledge Management through Organizational Learning. The findings of this research indirectly supported the relation between Knowledge Management and 25 Organizational effectively with the help of Organizational Learning as an intervening variable. In that case, at Hotel Cemerlang-Bandung, the activities of Organizational Learning performed vital role which was integrated in the relation inter- Knowledge Management which was aimed at achieving the goal of Organizational effectively.

### 5.2. Recommendation

- a. Since Organizational Learning became an integrated part in the relation between Knowledge Management and Organizational effectively, Hotel Cemerlang-Bandung would be likely to stabilize the learning activities into procedures or standards of clear and structured of actions. Learning is transferred effectively from an individual to a group and vice-versa, so that it could generate changes of behaviours directed to the formation of Learning Organization
- b. It needs an overall action and structured to monitor and evaluate the level of success of the activities of Knowledge Management, Organizational Learning process, and achievement of Organizational effectively continually, using the development of Information Technology.

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# Transformational Leadership, Entrepreneurial Orientation, and Organizational Effectiveness Universiti Teknologi Malaysia

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## Abstract

The intention of this study is to review published studies for the relationship between transformational leadership and organizational effectiveness through the role entrepreneurial orientation. This study focuses on transformational leadership encompassed by dimensions of idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Entrepreneurial orientation entails three sub dimensions namely innovation, proactiveness, and risk taking. Organizational effectiveness is viewed via goal approach, system approach, process approach, and multiple- constituency approach. Literature review highlights relevant sources which are synthesized. There is still lack of research investigating the connection of transformational leadership and organizational effectiveness with the mediating variable of entrepreneurial orientation. The present study identifies a generic framework for the importance of effective factors to achieve organizational effectiveness.

*Keyword:* Transformational Leadership, Entrepreneurial Orientation, and Organizational Effectiveness

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## 1. Introduction

As stated by Burns (1978), transformational leadership alludes to a procedure in which leaders and subordinates assist one another development to larger amounts of confidence and inspiration. This type of leadership, as recommended by Burns (1978), rouses subordinates to convert their energy toward more excellent interests of the association (Bass, 1985; Elenkov&Manev, 2009). Organizational effectiveness is regularly viewed as the main factor inside business and training area, and also the way to survival in associations of every assorted type in the twenty-first century (Rieley, 1993). The investigation of organizational effectiveness has turned into an extremely vital zone of exploration because of the predominant place associations possess in our lives (Ghorpade, 1970).

Miller (1983) alluded to the entrepreneurial firm as "one that participates in product-market innovation, attempts to a degree unsafe ventures and is first to concoct "proactive" improvements, prevailing before contenders" (p. 771). He proposed that an entrepreneurial orientation incorporated three extents: innovation, risk-taking, and proactiveness. Zahra and Neubaum (1998) expressed that entrepreneurial orientation is " the whole of a company's radical innovation, proactive strategic action, and risk taking exercises that are showed in its backing of tasks with unverifiable conclusions" (p. 124).

This study attempts to cover the lack of research investigating the connection of transformational leadership and organizational effectiveness with the mediating variable of entrepreneurial orientation. In this regard, the present study focuses on transformational leadership encompassed by dimensions of idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Organizational effectiveness is viewed via goal approach, system approach, process approach, and multiple- constituency approach. Few researches have been done considering the relationship between transformational leadership and organizational effectiveness via the mediating role of entrepreneurial orientation. Hence, our contribution is to consider the mediating role of entrepreneurial orientation which involves ofthree sub dimensions namely innovation,

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proactiveness, and risk taking for the relationship between transformational leadership and organizational effectiveness. This paper encompasses five parts including introduction, reviewing previous studies, related conceptual framework, discussion and finally conclusion. Next section discusses literature on transformational leadership.

## 2. Literature Review

### 2.1 Theoretical Background of Transformational Leadership

Transformational leadership is a standout amongst the most of the time studies in the leadership area; many well-known researchers have given hypothetical depictions about this leadership style (Bass, 1985; Burns, 1978; Yukl, 2010). Because the phrases transformational leadership and charismatic leadership have been utilized conversely by leadership specialists (Yukl, 2010), plainly the two phrases have likenesses. As stated by House and Howell (1992), the leaders of transformational leadership are separated from non-charismatic ones by a number of individual traits, for example, a solid tendency to accept risk, to be great confident and solid propensities to be imaginative. Therefore, it appears to be clear that transformational leadership involves certain parts of individual characteristics.

### 2.2 Sub Dimensions of Transformational Leadership

Initially, *idealized influence* alludes to charismatic part demonstrating that impels subordinate to relate to the leader (Eisenbeiss et al., 2008). Second, *inspirational motivation* is characterized as "the degree to which leaders express an engaging vision and act in ways that inspire those around them by giving significance and test to their subordinate's work" (Jansen et al., 2008, p. 998). Third, *intellectual stimulation* is characterized as "the degree to which leaders empower their subordinates' exertion to be creative and innovative by addressing suppositions, and reframing issues" (Jansen et al., 2008, p. 998). At the end, *individualized consideration* alludes to the controlling behaviour of transformational leaders (Eisenbeiss et al., 2008).

### 2.3 Organizational Effectiveness

As stated by the previous literature, there have been three methodologies that have been most normally utilized within the investigation of organizational effectiveness namely the goal approach, the systems resource approach, and the process approach; however, a fresher approach has emerged called the multiple constituency approach, which is a mixture of the initial three. Cameron and Whetton (1983) clarified the need for a few models of organizational effectiveness. Since there is an assortment of organizational conceptualizations that exist, this prompts issues with defining meanings of and evaluating criteria of effectiveness, prompting a need for a mixture of models of organizational effectiveness. Since associations contrast as to their societal capacities, it is reasonable that they might differ regarding size, shape, and structure. It is likewise unsurprising that they might be diverse with respect to institutional interrelationships and operational circumstances. Due to these distinctions, Ghorpade claimed that it is troublesome to discover one technique for measuring organizational effectiveness, since "criteria which fit certain associations miss the mark when connected to others" (1970, p. 31).

### 2.4 Goal Approach

In this model, the effectiveness of an association "is measured as stated by the capability of the association to attain desired objectives" (Frisby, 1986, p. 95). Tagging criteria is expert by uncovering the objectives of the association. These are the operative objectives of those people who settle on the greater part of the choices and can impact the activities of the association instead of the authority objective articulations made by associations. This methodology is accepted to take out the subjective inclination of scientists by concentrating on the destinations or objectives of the association (Frisby, 1986).

### 2.5 Systems Approach

As stated by Frisby (1986), in the systems approach to organizational effectiveness, which drew on the general systems theory, effectiveness "is measured in terms of the organization's ability to acquire scarce resources" (p.

95). Yuchtman and Seashore (1967) saw it as a conceptualization of the relationship between an association and nature's domain, which goes about as "the key source of data concerning organizational effectiveness " (p. 897). Kerr (1991) expressed that a game association might be successful as stated by this methodology in the event that "it procured rare financing from government sources and if it pulled in exceedingly qualified mentors and chairmen" (p. 84).

## 2. 6 Process Approach

The process approach refers to the internal processes and general functioning within an organization such as the work environment and employee satisfaction. These processes enable the conversion of inputs to outputs. The organization would be considered effective if the internal processes are smooth, efficient, and goal directed (Soucie, 1994). It additionally includes the positive connections between workers and employers.

## 2. 7 Multiple-Constituency Approach

As stated by the previous studies, a suitable elective to the objective, frameworks, and process approaches for examining and measuring organizational effectiveness is the multiple constituencies (MC) approach. This model is accepted to have been advanced in an exertion to endeavor to improve the shortcomings of the objective, methodology, and framework displays by joining the two viewpoints (Chor-fait, 1996). Subunits inside an association might likewise be seen as micro-associations that are included in the genuine outline and conveyance of items or administrations. These micro-associations must adjust to nature, which may be considered as a system of constituencies, for survival. This model measures the effectiveness of an association dependent upon how it can perform as time goes on in a societal setting and how adaptable the association is given the components of inclination, obligations, and time (Zammuto, 1984). Thus, organisational effectiveness is considered in this study as a multi process, with different activities.

## 2. 8 Entrepreneurial Orientation

Entrepreneurial orientation [EO] concerns singular or organizational eagerness to acknowledge new open doors and obligation to have an impact on change. EO alludes to inclinations, methods and practices that prompt new markets (or existing) merchandise or administrations by means of the existing (or new) ones (Walter et al., 2006, p. 549). Lumpkin and Dess (1996) discussed that EO is an organization's strategy orientation, having notable entrepreneurial perspectives, styles, strategies and choice traits.

## 2. 9 Sub Dimensions of Entrepreneurial Orientation

**Innovation.** Enhancement could be characterized as the "eagerness to help inventiveness and experimentation in presenting new products/administrations, and variety, innovative administration and Research and Development in creating new procedures" (Lumpkin & Dess, 2001, p. 431). **Proactiveness.** Proactiveness could be seen as an "open door looking for, forward-looking viewpoint including presenting new products or administrations in front of the opposition and acting in foresight of future interest to make change and shape environment " (Lumpkin & Dess, 2001, p. 431). Proactiveness is an affinity to take the activity to contend forcefully with different firms (Covin & Slevin, 1989). **Risk-taking.** Risk-taking is a readiness to submit a lot of resources to tasks where the expense of disappointment may be high (Miller & Friesen, 1982).

## 3. Conceptual Framework

### 3. 1. Transformational Leadership and Organizational Effectiveness

In spite of the fact that few studies have been directed to research the relationship between organizational effectiveness and transformational leadership, there has been almost no accord on whether leadership has a positive impact on adequacy. Pratt and Eitzen (1989), case in point demonstrated that an association's effectiveness might be the aftereffect of "leadership style, the moral of followers, the execution level, the development of the members, the sort of product or administration, whether the tasks need interaction or independent movement or some other variable" (pp. 314-315). They argued that "despite the fact that there are

numerous variables that influence organizational effectiveness, the role of leader is crucial" (p. 311). Additionally, Rieley (1993) expressed that organizational effectiveness requires an environment made through successful leadership that energizes the achievement.

*Hypothesis 1: transformational leadership is positively related to organizational effectiveness.*

### 3. 2. Transformational Leadership and Entrepreneurial Orientation

This study tries to join together these two ideas: leadership and entrepreneurship. This research intends to inspect how transformational leadership can influence the advancement and usage of entrepreneurial orientation. Entrepreneurial leadership is a viable and required leadership style (Cohen 2004; Tarabishy et al. 2005). Entrepreneurial leaders were authored by the individuals who understood that a change in initiative style was important. Entrepreneurial leaders assume a basic part in the accomplishment of new business ventures. Wah (2004) recommended that future leadership exploration utilize more quantitative methodologies to review Chinese entrepreneurial leaders. Entrepreneurial leadership is reasonable due to the uncharted and uncommon region that lies ahead for organizations in today's dynamic markets (Tarabishy et al. 2005). Given this view the research hypothesizes:

*Hypothesis 2: Managers' transformational leadership is positively related to employees' entrepreneurial orientation.*

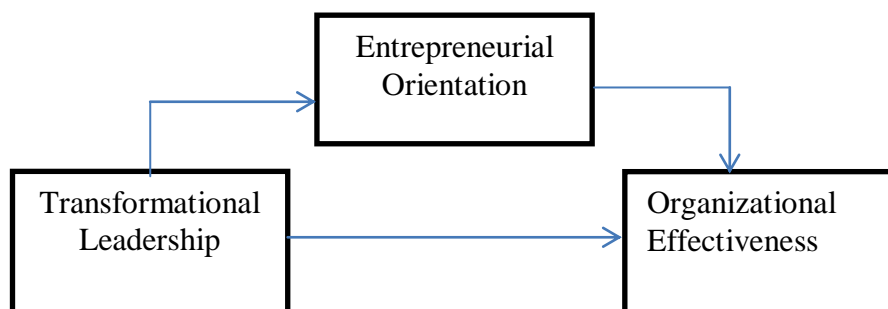
### 3. 3. Entrepreneurial Orientation and Organizational Effectiveness

Zahra (1991) reported a positive relationship between entrepreneurial orientation and firm profitability and development. Entrepreneurial orientation is the vicinity of authoritative level entrepreneurship (Wiklund & Shepherd, 2005). The idea of entrepreneurial orientation is that entrepreneurial organizations contrast from different sorts of organizations. Numerous specialists have found that entrepreneurial orientation is decidedly related with execution or conclusions (Barringer & Bluedom, 1999; Miller, 1983; Wiklund & Shepherd, 2003).

*Hypothesis 3: Entrepreneurial orientation is positively related to organizational effectiveness.*

*Hypothesis 4: Employees' entrepreneurial orientation partially mediates the relationship between managers' transformational leadership and organizational effectiveness.*

Previous contributions have evidenced the positive relationship between transformational leadership and organizational effectiveness. However, these two major variables have not been studied via the mediating role of entrepreneurial orientation. What is the impact of entrepreneurial orientation when both variables are combined together? Our study suggests that the mediating role of entrepreneurial orientation could bring about a stronger effect for transformational leadership on organizational effectiveness. In this regard our conceptual frame work provides a big picture regarding the mediating role of entrepreneurial orientation for the relationship between transformational leadership on organizational effectiveness.



Conceptual Framework

## 4. Discussion

This study focused on the influence of transformational leadership on organizational effectiveness through entrepreneurial orientation. Many former studies have made many efforts to explain on overall transformational

leadership as this issue contributes to various aspects of the organizations. In this regard, prior studies showed that transformational leadership entails idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. *Idealized influence* refers to charismatic part demonstrating that persuades followers to relate to the leader. *Inspirational motivation* is described as the degree to which leaders express an engaging vision and act in approaches that motivate the followers by giving significance and test to their subordinate' work. *intellectual stimulation* is considered as the degree to which leaders empower their followers' exertion in order to be creative and innovative by addressing suppositions, and reframing issues. And *individualized consideration* is about the monitoring behaviour of transformational leaders.

Entrepreneurial orientation reflects positive feelings, as well as includes a profound personality association between the business visionary and the new risk. In this perspective, entrepreneurial orientation consists of three prominent aspects namely innovation, proactiveness, and risk- taking. The innovation aspect of entrepreneurial orientation refers to a propensity to take part in creating new thoughts, variety, experimentation, and imaginative courses of action. Proactiveness is viewed as the opportunity for forward-looking viewpoint including presenting new products or administrations in front of the opposition and acting in foresight of future interest to make change and shape environment. Risk- taking is an organization's preference to take business-related chances with respect to strategic movement despite questionable matter.

The investigation of organizational effectiveness has turned into an extremely vital zone of research within organizations. There exist three approaches that have been most normally utilized within the investigation of organizational effectiveness namely the goal approach, the systems resource approach, and the process approach. Goal approach is measured as stated by the capability of the organization in order to achieve desired objectives. In the systems approach, effectiveness "is measured in terms of the organization's ability to acquire scarce resources. And the process approach is described as the internal processes and general functioning within an organization such as the work environment and employee satisfaction. Meanwhile, a fresher approach named multiple- constituency is also utilized for the purpose of the investigation in connection with the organizational effectiveness. Multiple- constituency approach is a suitable elective to the objective, frameworks, and process approaches for examining and measuring organizational effectiveness.

## 5. Conclusion

Organizational effectiveness needs an environment that is built via successful leadership. A leader is expected to show certain qualities in order to contribute to the effectiveness of the organizations. Transformational leadership is a tremendous benefactor to organizational effectiveness. Generally, organizational effectiveness entails a nearby association with the leadership capacities of informative styles, hope, and feeling, which are nearly identified with the participative aspects of transformational leadership.

Research has shown that transformational leadership leads to organizational effectiveness. The numerous organizations invest on transformational effectiveness initiatives for the purpose of achieving organizational effectiveness. Many scholars have proved transformational leadership is effective on organizational effectiveness. Transformational leadership is discovered to have a solid connection with organizational effectiveness segments such as market share, competitiveness, and occupation fulfillment.

This study tried to describe the connection between transformational leadership and entrepreneurial orientation. In fact, this research intended to investigate how transformational leadership can influence the advancement and usage of entrepreneurial orientation. Entrepreneurial orientation is a generally utilized measure as a part of business literature. Miller and Bromiley (1990) realized that entrepreneurial orientation had an effect on general firm execution, for example, return on value/ equity/assets/sales. Therefore, this study hypothesised that there is a positive impact between entrepreneurial orientation and organizational effectiveness. However, this study contributes that transformational leadership positively affects on organizational effectiveness through the mediating variable as entrepreneurial orientation. Thus, transformational leadership through entrepreneurial orientation increases organizational effectiveness. This study concentrated on the effect of transformational leadership on organizational effectiveness through entrepreneurial orientation; therefore, future researchers could focus on transformational leadership and other topics that are relevant to organizational levels.

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# Efforts to Enhance Knowledge Management and Learning Organization of Micro, Small, and Medium Enterprises (SMEs) of Batik Trusmi Cirebon in Realization of Eco-Efficiency of Batik Product

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## Abstract

In line with the increasing of the community's awareness in developing industry with some consideration of environmental preservation, then the concept of eco-efficiency is the most appropriate to practice in industry. This research attempts to measure and analyze the level of eco-efficiency in Small and Medium Industry (SMI) and Micro, Small and Medium Enterprises (SMEs), especially Batik SMI and SMEs. Dealing with that, Micro, Small and Medium Enterprises (SMEs) of Batik Trusmi has done some innovation in developing natural coloring matter to replace the use of synthetic coloring matter. Natural coloring matter is believed to be safe and environmentally friendly. The higher prices of batik made by the use of natural coloring matter are then anticipated by Batik Trusmi by showing high quality of its products (Borshalina, 2014).

The innovation of using natural coloring materials done by the Micro, Small and Medium Enterprises (SMEs) of Batik Trusmi was not an easy experience. The innovation process enhanced Batik Trusmi to develop a knowledge management and make it to become a learning organization. In Borshalina (2012) learning organizations and its output organizational knowledge had also been cited as an antecedent of innovation (Darroch and Mcnaughton, 2002; Hage, 1999).

The research result showed that the effort of increasing the knowledge management and the learning organization of Micro, Small and Medium Enterprises (SMEs) of Batik Trusmi Cirebon in the realization of batik products which is environmentally friendly was done through joining training and workshop done by The Clean Batik Initiative among others were: (1) training of trainers; (2) training in technical innovation; and (3) workshop for marketing for SMEs. With these knowledge SMEs of Batik Trusmi succeeded in reducing the production cost up to 40-50 percent which would then reduce the price of its batik with a cut of about 20-30 percent. It was admitted by the SMEs of Batik Trusmi that the efforts to enhance knowledge management and learning organization would not stop at that point, but it could be make possible to produce batik which is sustainable environmentally friendly.

*Keywords:* Knowledge Management; Learning Organization; Trusmi Batik.

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## 1. Background

In line with the increasing of the community's awareness in developing industry with some consideration of environmental preservation, then the concept of eco-efficiency is the most appropriate to practice in industry. Eco-efficiency is a strategy that combines the concept of economic efficiency based on the principle of efficiency of the use of the natural resource. According to the dictionary of Environment and The Ministry of Environment of the Republic of Indonesia, eco-efficiency is defined as a concept of efficiency that includes the aspect of natural resources and energy or a process of production that minimizes the use of raw materials, water, energy, and impacts on the environment per unit of product.

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Many researches in relation to eco-efficiency in industry have been done, Klunder (2004) designed a framework to find out a strategy that was most eco-efficient for a sustainable of house construction and presented its benefit for the environment. Researches in agricultural industry have also been done Pelletier et al. (2008:992) that designed a scenario of potential of eco-efficiency that will be attained from a shift to organic system in Canada.

The focus of the researches on eco-efficiency were mostly done in big industries, and not so many that dealt with Small and Medium Industry (SMI) and Micro, Small and Medium Enterprises (SMEs). This might be because of the scale of production of SMI and SMEs was still small that the impact or emission was still small and had not yet regarded dangerous for the environment. None the less, these days Small and Medium Industry (SMI) and Micro, Small and Medium Enterprises (SMEs) are developing so well that the number of Small and Medium Industry (SMI) and Micro, Small and Medium Enterprises (SMEs) becomes so great, with the impact accumulated to be so harmful and it would need great carefulness to be alert of the danger. This research attempts to measure and analyze the level of eco-efficiency in SMI and SMEs, especially Batik SMI and SMEs. For the time being, batik is one of the outstanding Indonesia commodities that its products also produce wastes that contaminate the environment, be it solid or liquid, especially waste coming from synthetic coloring materials.

Dealing with that, Micro, Small and Medium Enterprises (SMEs) of Batik Trusmi has done some innovation in developing natural coloring matter to replace the use of synthetic coloring matter. Natural coloring matter is believed to be safe and environmentally friendly. The higher prices of batik made by the use of natural coloring matter are then anticipated by Batik Trusmi by showing high quality of its products (Borshalina, 2014).

The innovation of using natural coloring materials done by the Micro, Small and Medium Enterprises (SMEs) of Batik Trusmi was not an easy experience. The innovation process enhanced Batik Trusmi to develop a knowledge management and make it to become a learning organization. In Borshalina (2012) learning organizations and its output organizational knowledge had also been cited as an antecedent of innovation (Darroch and Mcnaughton, 2002; Hage, 1999). The basic assumption was that the corporations that could be able to find opportunity to learn of the consequences of the change of environment were better than their competitors, responded better and more quickly than the competitors because they tended to change their business assumption when they encountered an event or heard a new information (Slater and Narver, 1995; Tippins and Sohi, 2003). This was the reason, comparing to market orientation, innovation commonly related to more reactive, learning organization has a relation to be more proactive and only then for market innovation, as they need change in the way a corporation seems to be than beforehand (Baker and Sinkula, 2002).

Borshalina's research (2012) concluded that there was an influence of learning towards innovation, there was an influence towards work performance, and there was an influence of learning of organization towards work performance of SMEs of Batik Trusmi Cirebon.

In enhancing the capabilities in producing batik which is environmentally friendly Micro, Small and Medium Enterprises (SMEs) of Batik Trusmi gets the guidance of an organization named Clean Batik Initiative (CBI). Some efforts that have been done by CBI among others are training for trainers, technical innovation, seminars and workshops and technical aids as well as training on marketing of environmentally friendly batik product for multiplier organization (CBI, 2012).

## 2. Problem Formulation

Based on the background defined above, then the problem formulation in this study would be "How are the efforts to enhance knowledge management and learning organization of Micro, Small and Medium Enterprises (SMEs) of Batik Trusmi Cirebon in realization of eco-efficiency batik products?"

### 3. Theoretical Framework

#### 3.1. Knowledge Management

Tannebaum (1998) presented a definition by providing various formulations to provide understanding of a knowledge management, as in the following:

- a. Knowledge management includes collecting, arrangements, access to information to build up knowledge, the appropriate use of information technology, such as computer which is able of supporting knowledge management, but the information itself is not a knowledge management.
- b. Knowledge management includes sharing of knowledge.
- c. Knowledge management related to a person's knowledge. At one time, an organization needs one's competence to understand and make use of it effectively.
- d. Knowledge management relates to enhancing the organizational effectively. We concentrate on the knowledge management because we believe that a knowledge management could provide contribution to the vitality and the success of the organization.

Rasula *et.al.* (2012) stated that Knowledge management is a process that transforms individual knowledge into organizational knowledge. Essentially, it embodies organizational processes that seek synergistic combination of data and information processing capacity of information technologies, and the creative and innovative capacity of human beings. Therefore, the knowledge management is a set of things involving various activities (Haslinda and Sarinah, 2009).

Through the knowledge management, both the relation between the coordinate and the subordinate as well as among the workers in sharing of knowledge, transferring of knowledge that is given explicitly and implicitly, that knowledge received not only in the form of output such, but also knowledge that is there in the brain of man, which is useful for others. Both kinds of knowledge will influence the performance of the members of an organization. With a good performance, the organization in public sector will be able to realize an optimum service for the community.

#### 3.2. Organizational Learning

Mondy (2008), explains that organizational learning is a corporation that is aware of the importance of training and its developments that relate to sustainable work performance and are willing to take appropriate actions. West and Bines (2000) provided a good explanation concerning the difference between organizational learning and learning organization. Organizational learning is a concept which is used to describe types of activities in the organization. The learning is about any situation inside or outside the respective organization, whereas learning organization is the capabilities of the organization in creating, acquisition, and transferring knowledge as well as behaviors in accepting knowledge and new horizon.

According to Calantone *et. al.* (in Keskin, 2006), organizational learning refers to all activities of organization in creating and making use of knowledge to increase the competitiveness of benefit, including four components: (1) Commitment to learn; (2) sharing of visions; (3) Openness of minds to accept new ideas; and (4) sharing of intra organizational knowledge.

### 4. Results and Discussion

Eco-efficiency is a strategy that combine efficiency concept of economy based on efficiency principle of the use of the natural resources. For that reason, if Micro, Small and Medium Enterprises (SMEs) of Batik Trusmi wants to increase eco-efficiency in the batik corporation, then Batik Trusmi should implement the production with the eco-cost going lower and lower, a production process which is environmentally friendly. Another alternative strategy that could be used in creating production which is clean and environmentally friendly is by using coloring materials alternative or natural coloring materials. The benefit of the use of natural coloring



materials is realization of producing through a clean process that is environmentally friendly, with a risk of the increasing of the production cost.

In the effort to overcome this problem, Micro, Small and Medium Enterprises (SMEs), with the guidance of CBI (Clean Batik Initiative), have joined a series of training and workshops, among others:

1. Training of trainers

For this training of trainers Micro, Small and Medium Enterprises (SMEs) of Batik Trusmi sent 8 people of level supervisors to join the training. The key for success of this training is that there was a trainer of trainer who was an expert who was committed and could be able to adapt and socialize well in that environment. In this case, a deep understanding of batik production process was an extremely important knowledge to have, the expert trainer before extending new additional knowledge of an environmentally sound and safe production process through the Training of Trainers.

Training of trainers was offered through a method of learning for adults, by maximizing cooperation of all trainees to dig up all potentials they already had. This would support the needed competence for the training consultant. This program of training for trainers asked all candidates of technical consultants to undergo a set of written test as well as practical assessment.

2. Technical innovation

In the case of Micro, Small and Medium Enterprises (SMEs), a small change at the beginning could be the first step to big changes with more impacts and needing more money. A big change such as this would not possible for SMEs, unless they were confident that this kind of investment would be most beneficial for them. But, a limitation of capital, location, and information on effective technology could postpone the implementation of this development.

Almost all technology innovations developed by this program related to energy economy. This technology was very much needed, due to the speed of energy price increasing, especially fuel, which influenced batik production cost. Below are some technology introduced to SMEs in program of 2011:

a. Electric stove

Technologic Innovation of CBI which was mostly used was electric stove. This stove change electric energy into heat needed for the melting of the candle used in the process of production. This way is very useful as the electrical cost tends to be cheaper comparing to other energy such as kerosene, diesel and gas.

By using electric to replace other fuel, energy cost related to batik production cost could reduced up to 90 %. Aside from offering economic benefit, the use of electric stove also reduced much air pollution resulting from burning woods and oil in the production centre.

b. Blower for stove in melting the candle (*Pelorodan*)

The highest fuel cost in the batik production was in relation to melting process (candle is extracted from the cloth which has been colored). During this process the cloth is boiled together with the water in large bowl, heated by burning of wood as fuel. This method is very inefficient and it causes much smokes.

The addition of a blower gives additional oxygen to the woods burnt, and resulted in the burning of the woods while the heat is higher, and it increasing the efficiency, beside more complete as it reduced much of the smoke. With an appropriate degree of water, the efficiency could be increased up to 50 percent.

c. Ceramic stove

Not all stove for melting the candle used burning woods. In certain areas, gas can be the fuel which is more affordable. To increase the degree of efficiency, the stove for melting the candle could use gas as fuel. CBI imitated the technology used in Pekalongan that is ceramic stove. One of the disadvantages of the bowl for melting the candle is that due to very high temperature in the process, the bowl has short period of use. When a plate of ceramic is put over a fire of gas burnt, the ceramic will be heated up to

over than 700<sup>0</sup> C. The ceramic plate which has been heated in such a way is longer to keep its heat but also heat more evenly, and could save up to about 30 percent of “pelorodan” process cost.

d. Solar lamp

Because of the bad light and bad circulation of air, most SMEs were forced to use electric lamp all day long. One alternative that could be done was to make use of a plate of glass on the ceiling to let the sunray get into the house but this way was not very effective as it all depended on the situation of the sun.

e. Removing the wax/candle from the water ex-melting process

Candle/wax is another matter used in production process which has high price. Almost all handicraftsmen in batik have ever attempted to lift candle /wax during the process of melting process with a various degrees of success. Usually the wax/candle was screened on a surface of liquid after the process of boiling it. But this way only succeeded in lifting about 50 -70 percent of the wax used at the beginning of the process. By this technique the amount of wax that could be lifted added up to 10 percent.

3. Marketing Workshop for SMEs

As a whole program promoting the Batik production process, CBI was aware of the importance of the discussion about the production and consumption of batik to achieve its goal. Sustainable production and consumption could be seen as tow side of a coin. These two sides complete each other and support each other. The efforts to make the demand of the market for environmentally sound and safe will influence the pattern of production and the availability of environmentally sound and safe batik as well as the demand for batik.

In sustainable consumption activities CBI focused its attention to enhance the awareness of the consumers and promoted environmentally sound and safe batik, but at the same time activated the SMEs batik to market their products of environmentally sound and safe batik. As a first step in the activating Micro, Small and Medium Enterprises (SMEs), CBI held workshops on marketing in a three day period for all SMEs who they supported. The module for the workshop was adjusted to the need of the SMEs.

After they joined the workshop on marketing, SMEs who have confident in the implementation of the program experienced a extraordinary development in packing, material for promotion, pricing, choosing of colors and pattern, as well as its marketing strategy.

Having knowledge got during joining the above workshop, and training, Micro, Small and Medium Enterprises (SMEs) of Batik Trusmi soon made some improvements in their process of production. In the researcher observation, the improvements made by Micro, Small and Medium Enterprises (SMEs) of Batik Trusmi, could be summarized in the following table:

**Table 1. Improvements in Production Process  
By Micro, Small and Medium Enterprises (SMEs) of Batik Trusmi**

<b>Improvement suggested</b>	<b>Improvement done</b>
Conversion of fuel.	Replacing kerosene replaced by gas LPG tube of 3kg.
Construction of screening.	Screening the wax/candle to be reused and reducing the environmental contamination.
Making of gutters for liquid waste.	Reducing environmental contamination by a particular channel especially for liquid wastes.
Making of chimneys.	Construction of chimneys as the channel for smokes to get higher free air to minimize negative effects for worker health.

**Source: The researcher’s observation at SMEs of Batik Trusmi.**

The results of the data processing show that the value of eco-costs for chemical dye batik and fuels of Batik Trusmi SMEs gave the eco-efficiency and reducing the production cost up to 40-50 percent which would then reduce the price of its batik with a cut of about 20-30 percent. Economizing of the resourcing and applying cleaner production can be accomplished to enhance the eco-efficiency rate. Cleaner production can be achieved using natural dyes and implement end of life strategies.

## 5. Conclusion and Suggestion

### 5.1. Conclusion

The effort of increasing the knowledge management and the learning organization of Micro, Small and Medium Enterprises (SMEs) of Batik Trusmi Cirebon in the realization of batik products which is environmentally friendly was done through joining training and workshop done by The Clean Batik Initiative among others were: (1) training of trainers; (2) training in technical innovation; and (3) workshop for marketing for SMEs. The results of the data processing show that the value of eco-costs for chemical dye batik and fuels of Batik Trusmi SMEs gave the eco-efficiency and reducing the production cost up to 40-50 percent which would then reduce the price of its batik with a cut of about 20-30 percent. Economizing of the resourcing and applying cleaner production can be accomplished to enhance the eco-efficiency rate. Cleaner production can be achieved using natural dyes and implement end of life strategies.

It was admitted by the SMEs of Batik Trusmi that the efforts to enhance knowledge management and learning organization would not stop at that point, but it could be make possible to produce batik which is sustainable environmentally friendly.

### 5.2 Suggestion

It was suggested that SMEs of Batik Trusmi itself could develop other efforts still in the corridor of the production process which is environmentally friendly in a sustainable way.

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# Assessment of Human Capital Management (HCM) Implementation and Its Effect on Innovation: Case Study at PT Dirgantara Indonesia

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## Abstract

The financial crisis in 1998 requires the state to stop its funding to PT DI. Lack of funds forced PT DI to cut its employees in large numbers in order to sustain the company survival with business turbulence encountered. This massive layoff was followed by experts skill left the company. This condition raises some problems for companies which are lack of expertise, employees age gap and based on previous research there is still a lack of trust in leaders. Improvement of Human Capital Management (HCM) is required considering problems faced is about human resource management, and must be conducted effectively and accurately targeted because of PT DI limited funds. HCM framework used in this study is framework developed by Laurie Bassi and Daniel McMurrer (2007) which states there are five drive (driver) HCM which are leadership, engagement, knowledge accessibility, workforce optimization dan learning capacity. Assessment of HCM implementation in PT DI using questionnaire tool shows that implementation of HCM in PT DI is still at low level and the driver with the lowest score is Engagement. Innovation used as the expected result because PT DI as aircraft manufacturing company is intense company with innovation. HCM correlation analysis with company innovation capability is conducted by Partial Least Square (PLS) using software smartPLS 2.0. PLS analysis generates that Engagement is the driver with the highest correlation to innovation. The series result of research steps indicate that the Engagement is the driver with the highest correlation to the level of innovation as well has the lowest value of implementation level, so that the increase in HCM should be concentrated on the driver Engagement. In this study, the researcher recommends enhancement Engagement with conduct performance management.

*Keywords:* Human Capital Management (HCM), Innovation, PT Dirgantara Indonesia

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## 1. Introduction

PT. Dirgantara Indonesia (PT.DI) is one of the aircraft manufacturing companies in the world which located in Bandung, Indonesia. In 1998, crisis hit mostly of Asian countries including Indonesia. In order to overcome the economic crisis, the Indonesian government was reducing the allocation of funds within government spending, one of them by no longer giving injection of funds for PT DI. Terminated the funding from the government which is the sole funding source of PT DI cause a great financial crisis happened in internal company resulting in massive layoffs of 16000 employees (2000 engineers) to only 3500 employees (900 engineers). This situation emerged some problem which are human capital shortage because many of employees especially the experts left the company, the human resource demography in PT DI is not proportional because age gap between senior management and junior employee is too far, beside that there would be much of senior employees will retire in 2015. Previous research research by Utami (2013) also shows employee level of trust to leader is only in moderate level which show that employee do not feel secure to fully put their trust to their leader. Aerospace industry is knowledge intense industry which relies on people as its knowledge worker and key resources, so when company loses the people and the composition of its people in the organization is not proportional, it can disrupt the business processes and cause the company more difficult to achieve the sustainability, even struggle to be survived. PT DI must improve its Human Capital Management to fix the problems at PT DI which is in line with rescue strategy that PT DI designed in 2003 to safes the company from the crisis was much talk about

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human capital development. PT DI still in the phase of recovery and financial condition has not stable yet, it means that PT DI need to be efficient in its spending especially in human capital development. Efficient could be achieved by maximizing its return of investment in people, so the investment or spending to develop human capital is right on target and as needed by the company. Due to the limited time and widespread scope of PT DI as research object is very wide then author limits the scope of research. The research limitation conducted by selecting directorate that represents the whole company which are directorate of engineering and directorate of production.

## 2. Literature Review

### 2.1 Human Capital Management

According to John Ingham (2007) definition of Human Capital is “the relevant knowledge, skills, experience and learning capacity of the people available to the organization”. Based on that definition of Human Capital, then he defines Human Capital Managements as a “strategic approach to people management that focuses on the issues that are critical to an organization’s success”. A company has a competitive advantage when it provides products and services that meet customer’s needs better than competitors do. According to Finn (2002), “HCM leverages the most valuable asset – the people – to improve business performance and grow competitive advantage. Focusing on the issue that attract, motivate and inspire the best talent, HCM mobilizes every aspect of the operations to achieve a single goal: sustained business success.” Human capital management is a system for improving the performance of those in critical roles those with the biggest impact on corporate core competence (Bradley, 2008). This research uses human capital framework by Laurie Bassi and Daniel McMurrer (2007). According to Bassi and McMurrer organization HCM performance is determined by its drivers which consist of five major categories: leadership practices, employee engagement, knowledge accessibility, workforce optimization, and organizational learning capacity. Each of HCM drivers has dimensions reflect how effective organization could gather through contribution each driver and these dimension called HCM practices. HCM practices are practical form of HCM drivers which represents the HCM drivers itself.

### 2.2 Innovation

According to top executive, innovation is an important element in PT DI business process and needs to be improved along the time. John Bessant and Joe Tidd in their book titled ‘Innovation and entrepreneurship’ (2011) defines “innovation is about growth – about recognizing opportunities for doing something new and implementing those ideas to create some kind of value. Innovation is a complex process which needs systematic careful and management and carries risks. Innovation is not a single events, it is an extended process of picking up on ideas for change and turning them into effective reality. According to Bessant and Tidd the core process of innovation involved recognizing opportunities, finding resources, developing the venture and creating value. In line with Bessant and Tidd who perceive innovation as a series of process, Hansen and Birkinsaw view innovation as a value chain. Viewing innovation as end-to-end process rather than focusing only on a part allows company spot both weakest and the greatest part of the innovation process. The integrated flow of the innovation as a value chain presents innovation as a sequential process that comprises three phases: starts from idea generation then to idea conversion and finally idea diffusion.

#### a. Idea Generation

This phase explain about how company could generate idea and the source of idea. It could be in-house where the ideas come from inside a unit, on their own functional groups or business units

#### b. Conversion

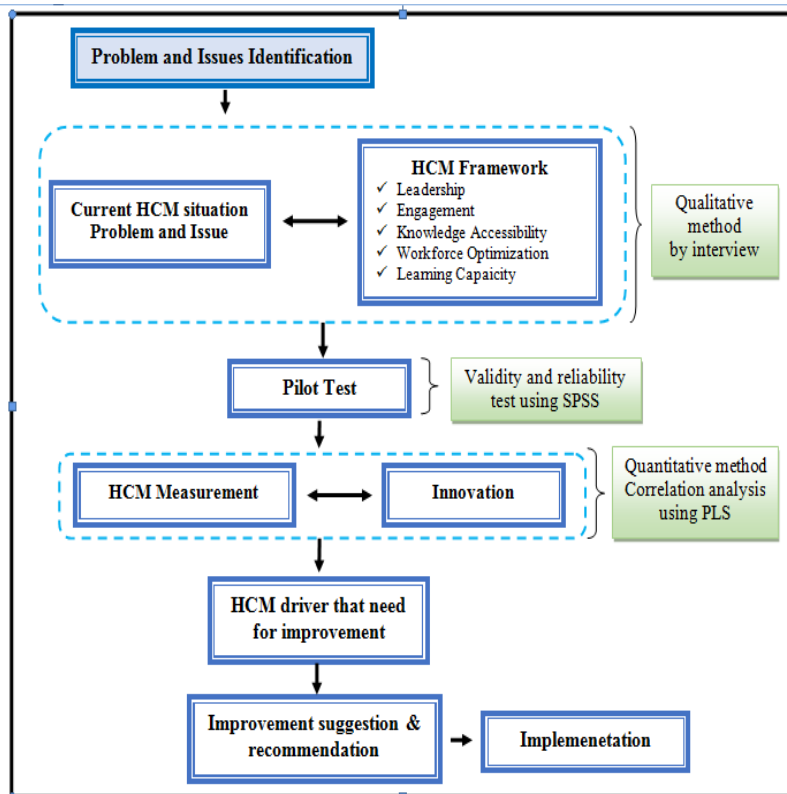
After generates some idea from inside and outside, company must screen and fund the idea which has selected. Organization or company must do screening and funding mechanism properly.

#### c. Diffusion

The ideas and concepts that have been generated, selected, funded and developed need to receive buy-in which not only from customers but also across the company.

Project management process of engineering directorate in PT DI is divided into several processes, namely: first, the initiation process which includes analysis of market studies, feasibility studies; second, planning process that includes planning of all resources for the realization of products including the budget, man power, technology, schedule; third, executing process which is the execution stage of projects that already planned; fourth, controlling process which includes analysis of performance, control all the stake holders involved then reality cross check with the planning (comparing JAS and JAR). From the series steps of project management process in directorate of engineering, executing process is the processes that have the most intense of innovation.

### 3. Conceptual Framework



After identify issue and problem, current HCM situation of PT DI that include problems and issues will be associated with Human Capital Management framework by alignment process that conducted by doing interview with some representative respondent that could represents PT DI situations. Knowing that the problems and issues are associated with Human Capital Management, it needs to do improvement in implementation of HCM at PT DI to fix the problem. Before doing improvement, survey and measurement of HCM implementation is conducted first. Survey and measurement of HCM implementation is conducted using tool kit that developed by Laurie Bassi and Daniel McMurrer (2007) in the form of questionnaire.

Figure 1. Conceptual Framework

The result of HCM measurement then associated with organization innovation using Partial Last Square (PLS) to identify which driver of HCM has the most critical role that drives organization innovation. These series of analysis phases will show and detect which HCM driver that need for improvement as well as has the most critical role to determine organization innovation. Having known the HCM driver that need for improvement, recommendation and suggestion could be arranged as needed and precisely targeted to solve problems and issues which are faced by company and improve company performances.

### 4. Research Methodology

To capture the situation and explore the problems, researcher does both quantitative and qualitative research. The processes of the research are problem/issues/phenomena identification, aligning problem/issues/phenomena with human capital framework by interview and literature review (qualitative method, instrument design, pilot test to 30 respondents for validity and reliability testing, data collection, processing data and analysis (quantitative method), conclusion, propose conclusion and recommendation. This research using two types of data which are primary data (data is obtained by conducting interview, questionnaire distribution, and discussion with research objects) and secondary data (data is obtained from article, literature study corporate data, media reports that related with the research). Researcher set margin of error at the level of 10% (confidence level of 90%) which

had been applied at many social studies that result sample number of 96.78 means the minimum sample of the research should 97 persons.

### 1. Alignment methodology

Alignment process of keyword the result from interview with Bassi's HCM is conducted to determine whether the framework corresponds to company issue, problem and condition or not and also to cross check problem and issue that had identified before. The more correspond keyword with HCM framework, the more fit or suitable HCM framework with company problem and issue. It means that if the keywords correspond to HCM framework, then the framework is applicable to be used to examines and solve company's problem.

Table 1. Matrix Matching Between HCM with the Conditions and Problems

Leadership Practices	Employee Engagement	Knowledge Accessibility	Workforce Optimization	Learning Capacity
<p><b>Communication</b> Communication is highly desirable, but still not well established because of gap generation</p>	<p><b>Commitment</b> There is no clear performance management, KPI (Key Performance Indicator) still in planning phase</p>	<p><b>Availability</b> Job-related information and training are readily available because it is very necessary but still not conducted in effective way</p>	<p><b>Conditions</b> Working conditions made to support high performance for each area</p>	<p><b>Innovation</b> New ideas are welcome but still take long time to being implemented.</p>
<p><b>Systems</b> Leadership development and transition systems are not conducted well, there is no coaching and file transfer from predecessor to the successor</p>	<p><b>Time</b> Workload still not evenly distributed, because some area are overloaded because shortage of people, some are underloaded</p>	<p><b>Collaboration</b> Teamwork is encouraged and enabled but data transfer across department still not running well because lack of trust to colleague</p>	<p><b>Hiring</b> Hires are chosen on the basis of skill project required; new hires complete a thorough orientation an basic training</p>	<p><b>Training</b> Training is practical and supports project goals, and could be based on customer request.</p>
	<p><b>Systems</b> There is no continually employee engagement evaluation</p>	<p><b>Systems</b> Collection systems are conducted but information is not available easily because there is no portal information.</p>	<p><b>Systems</b> Employee performance management systems are not established yet</p>	<p><b>Development</b> Formal career development plans still not well established, especially in directorate of production.</p>

Table 1. shows that company current situation and problem is all correlated with Bassi HCM framework. It means that this framework is fit with company current situation and problem. The Tool of questionnaire which used to measure HCM implementation is adapted from Bassi framework and accepted by Head of Human Capital Development Division.

### 2. Pilot test (Validity and Reliability testing)

Validity test with number of samples 30 and confidence level of 95% has the r table value of 0.361. It means in order to be classified valid, the r score of each item indicator must greater than 0.361. all item in Human Capital Management variable have r Score greater than r table (0.361) which means that all items are valid so do the item on innovation variable (Sugiyono, 2005). This research uses *Cronbach Alpha* as basis of the reliability



testing. According to Nunnally et al. (1994) instruments could be classified as reliable when it has *Cronbach Alpha* greater than 0.7. All variables have Cronbach Alpha greater than 0.7 which means that all variable are Reliable.

### 3. HCM Measurement

According to Bassi and McMurrer (2007) HCM data capture and analysis proceeds in three steps: Step 1. Employees and managers are surveyed to quantify variations in HCM maturity across functions, business units, regions, and job categories and also to document organizational HCM strengths and weaknesses Step 2. Variations in HCM maturity are linked to variations in key organizational outcomes, either financial or non financial. This phase identifies which HCM factors are most critical to organizational performance. The outcome is usually tracked by top management and in this research the outcome is Innovation. Step 3. Results in first two steps are used to identify the HCM factors that significantly drive organizational performance as well as those that also represent areas of relative weakness. The result of this series of analysis will highlight where the organization should concentrate its HCM development efforts.

Respondents of this research are 175 person which meets the sample size was calculated using the formula of Slovin. questionnaire used for the assessment is adapted from toolkit developed by Bassi and McMurrer (2007). This questionnaire using a 1-to-5 scale (1, strongly disagree; 2, disagree; 3, neutral; 4, agree; 5, strongly agree). The assessment result of HCM implementation in PT DI is shown in Figure 2. and Table 2. Table 2. show total score of HCM implementation in PT DI while Figure 2. show the chart of each practice of HCM driver score and score of innovation sub variables.

Table 2. Total Score of HCM Implementation at PT DI and comparison to Bassi HCM Score Criterion

Human Capital Driver	SCORE
LEADERSHIP	13.25
ENGAGEMENT	13.23
KNOWLEDGE ACCESIBILITY	13.87
WORKFORCE OPTIMIZATION	14.08
LEARNING CAPACITY	13.27
TOTAL	67.70

Total score	Level of HCM
90 to 100	Superior
80 to 89	Adequate
70 to 79	Marginal
69 and below	Poor

Shown in Table 2 the total score of HCM implementation in PT DI is 67.70. As seen in Table 2, driver that has the lowest subtotal score is engagement, followed by leadership and learning capacity. the total score of HCM implementation in PT DI which valued at 67.70 is categorized as Poor level of HCM. Poor level is the lowest category level of HCM that means HCM implementation in PT DI still far from optimal and need serious attention for improvement especially engagement, leadership and learning capacity driver.

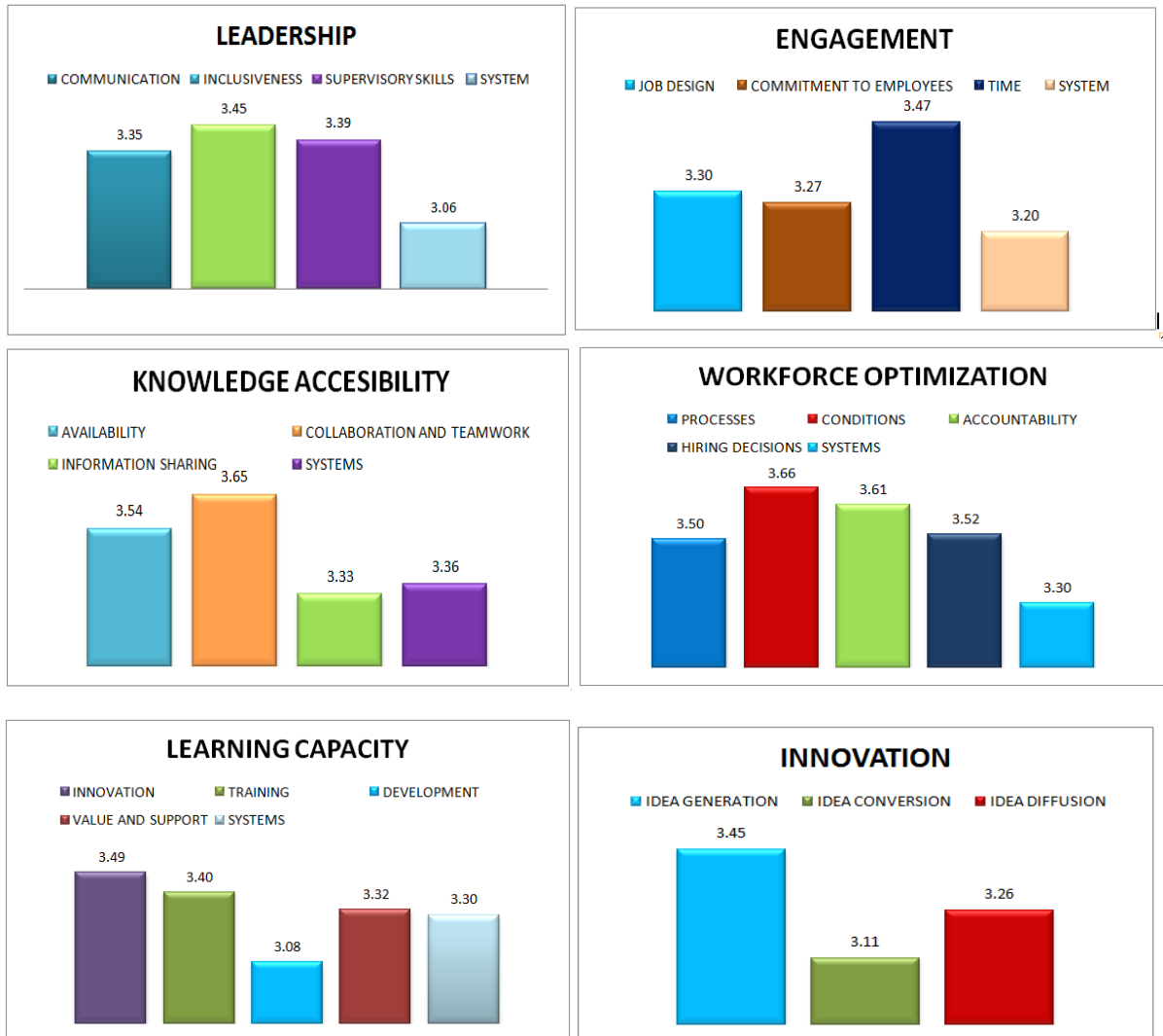


Figure 2. Each practice of HCM Drivers and Innovation Sub Variables Score

Summarize of total score of HCM implementation has explained in Table 2. while from innovation variable, sub variable idea conversion has the lowest score, it means that PT DI has the weakest point in this area. Idea conversion area is about funding, taking risk in investing the new ideas, completion time of new product or business process, and support for management.

#### 4. Previous research about correlation between Human Capital with Innovation

Fang Yen (2013) conducted a research about the impact of bank's human capital on organizational performance. The research finding shows that build human capital could enhance innovative capabilities. For the banking industry, the higher the human capital, the greater the innovative capabilities are. Wang & Chang (2005) conduct a study titled "Intellectual Capital and Performance in Causal Models. Evidence from The Information Technology Industry in Taiwan". The research results that human capital has a direct impact on innovation capital, then describe that if we try to improve innovation capital, we need to improve human capital too. Elsetouhi and Elbeltagi (2013) conduct a research titled "The Role of Human Capital and Customer Capital in Supporting Product Innovation". The research findings confirm that human capital has a directly positive effect on product innovation.

### 5. Partial Least Square (PLS) method

Determining which human capital driver has the critical role to innovation could be conducted by find out the correlation between both of these variables. Tool that is used to analyze the correlation between human capital drivers and innovation is smartPLS 2.0 software while the data using data of questionnaire that had been distributed. The hypothesis of the research is:

H0 : Human capital drivers has no correlation to innovation

H1 : Human capital drivers has significant positive relationship to innovation

There are seven steps phase that has to be followed in order to get the precise interpretation and conclusion about the relation between human capital drivers and innovation.

#### Stage 1 – Specifying the structural model

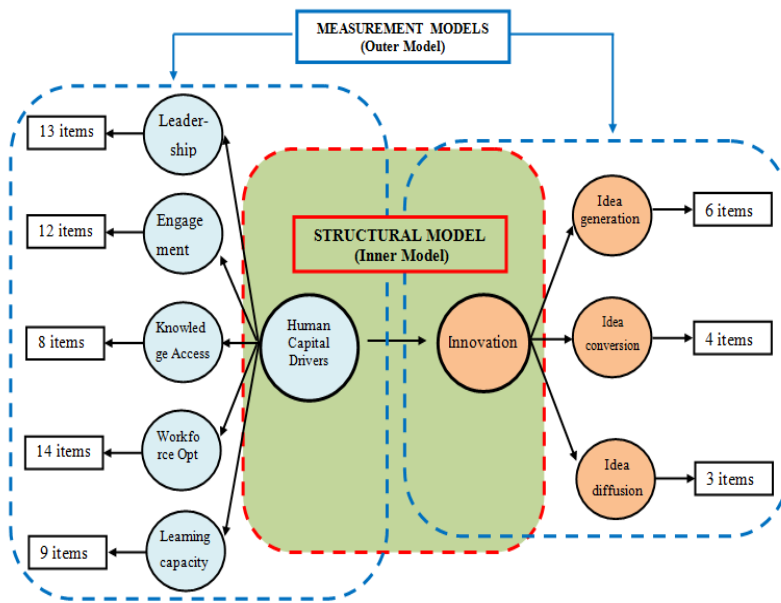


Figure 3 describes that Human Capital Drivers as exogenous latent variable while others as endogenous latent variable. Because of the characteristic of model that has the larger number of endogenous variable than exogenous variable, so it could be classify as unfocused model (Hair, et al, 2011). In this research model, as we can see in Figure 3, the red dotted line points the area of inner model. So inner model that needed to be tested in this research is innovation variable influenced by Human Capital Drivers variable

Figure 3 Structural Model (Inner Model) and Measurement Model (Outer Model) Area

#### Stage 2 – Specifying the measurement model

The measurement models include the unidirectional predictive relationships between each latent construct and its associated observed indicators (Hair et al, 2011). Measurement model also known as outer model in PLS. Figure 3. shows that outer model pointed by blue dotted line in the model. Outer model describes the relation between variables and sub variables with each of its manifest variables (indicators). So models that needed to be tested in outer model are:

- The latent variable of Human Capital Drivers measured by five latent variables, which are leadership practices, employee engagement, knowledge accessibility, workforce optimization, and learning capacity. Furthermore latent variable leadership will be measured by 13 items of its indicators, latent variable engagement will be measured by 12 items of its indicators, latent variable knowledge accessibility will be measured by 8 indicators, workforce optimization will be measured by 14 indicators, and latent variable learning capacity will be measured by 9 indicators.
- The latent variable Innovation measured by three latent variables, which are idea generation, idea conversion and idea diffusion. Latent variable idea generation will be measured by 6 items of its indicators, latent variable idea conversion will be measured by 4 indicators, and latent variable idea diffusion will be measured by 3 indicators.

#### Stage 3 – data collection and examination

Data collection had been explained in section research methodology. Data that will be used and examined in this PLS is data primer which is get from questionnaire.

**Stage 4 – PLS-SEM model estimation**

PLS model of this research shown in Figure 3. The relationship between latent variables and indicators in this model also categorized as reflective model that shown by direction of arrows which begin from the latent variable toward its indicators. A model categorized as reflective model is when functions of the variables and changes in the variables are reflected in changes in the items/indicators. (Hair et al, 2011)

**Stage 5 – assessing PLS-SEM result for reflective measurement models**

a. Indicator reliability

For indicator reliability the evaluation of measurement model has standardized indicator loading equal or larger than 0.70, but in exploratory study, loading of 0.40 are acceptable (Hullan ,1999 in Hair et al, 2011). According to this provision, indicators that has indicator loading less than 0.40 will be removed from the model. The model of the research already reliable after exclude 3 indicators which are EJD 3, WAC 1 and EJD 3. Table indicator loading score could be shown in Appendix.

Table 3.The Composite Reliability Score, AVE and R Square Scores

	Composite Reliability	AVE	R Square
HCD	0.975818	0.437152	
LEADERSHIP	0.952182	0.605514	0.680795
ENGAGEMENT	0.930627	0.574844	0.814302
KNOWLEDGE ACCESSIBILITY	0.906862	0.551537	0.747118
LEARNING CAPACITY	0.934878	0.616301	0.799141
WORKFORCE OPTIMIZATION	0.934920	0.530911	0.795864
INNOVATION	0.953026	0.612188	0.661427
IDEA CONVERSION	0.932639	0.776131	0.858013
IDEA DIFFUSION	0.906296	0.763528	0.828404
IDEA GENERATION	0.914360	0.643151	0.882394

b. Internal consistency reliability

In Internal consistency reliability, we refer to the score of composite reliability. According to Bagozzi and Yi (1988) in Hair, et al (2011), the score of composite reliability must be equal or larger than 0.70, but in exploratory research 0.60 is considered acceptable. Table 3 shows that composite reliability score of each latent variable is larger than 0.7 which means that construct classified as reliable.

c. Convergent validity

Convergent validity refers to the degree of agreement in two or more measures the same construct. Conducting convergent validity refer to value of average variance extracted (AVE). The construct classified as reliable when AVE is equal or higher than 0.50 (Bagozzi and Yi, 1988 in Hair, et al, 2011). But according to Ghozali (2008), even if not all of the AVE scores are higher than 0.50 both exogenous and endogenous constructs can be classified as reliable because all of the composite reliability scores are higher than 0.70. So, if referred to that provision, the construct of this research still classified as reliable.

d. Discriminant validity

To determine discriminate validity, we refer to cross loading. Each indicator should load highest on the construct it is intended to measure to determine a model has good discriminant validity (Chin,1998; Grégoire and Fisher, 2006; Hair, 2011). .All indicator in the research already load highest on the construct compare to the others, it means that correlation scores of the indicators with its construct are higher than the correlations scores of the indicators with the other constructs. Based on this condition could be concluded that the model has good discriminant validity.

### Stage 6 – assessing PLS-SEM results for structural model

One of the criteria in assessing PLS-SEM results for structural model is  $R^2$  and the acceptable  $R^2$  level depends on research context which 0.02, 0.15, 0.35 for weak, moderate, strong effects (Hair, 2010).  $R^2$  is useful to explain the ability of independent variables explain the dependent variable. The higher the  $R^2$  value, the greater the ability of the independent variables can explain the dependent variable. Table 3 shows that the R square scores of each of the variables is larger than 0.35. It means that HCD as exogenous variable has strong effects and great ability of explain the endogenous variables.

The inner model evaluation can also be defined as the analysis of the relationship between the construct. To determine the relationship as significant, we have to compare T-statistic with t table score. This research has confidence level of 95% and 175 cases, which has t table score for two tail test valued at 1.96. Calculation of T-statistic obtained by conduct bootstrap calculation in smartPLS 2.0 software. HCD to Innovation relationship has T-statistic score of 29.455 which is larger than 1.96. It means that t score is in the  $H_0$  rejection area, and acceptance of  $H_1$ .

### Stage 7 – Interpretation of Result and Drawing Conclusion

In structural model assessment, based on the R square scores, exogenous variable has strong effects to endogenous. The R square scores of Innovation is 0.6614 (classified as strong effects) which means HCD influence Innovation for 66.14% while the rest is influenced by another variables that is not measured in this research. With significant level of 0.05 or confident level of 95%, T-statistic score higher than t table which result the acceptance of  $H_1$  which states Human capital driver has significant positive relationship to innovation.

Path coefficient (original sample O score) of HCD to Innovation is 0.8133 which means that HCD has a positive correlation with Innovation. If the correlation coefficient is positive, then the two variables have a unidirectional relationship which means that if the value of variable HCD is high, then the value of the variable Innovation will be high also. The path coefficient score of 0.8133 or 81.33% means that the correlation is strong. Some classified the correlation score 0.75 – 0.99 as a very strong correlation. The correlation of HCD to its sub variables also classified as positive and very strong correlation, but the three strongest are Engagement (0.9024), Learning Capacity (0.8939) and Workforce Optimization (0.8921). This circumstances show a relationship where the higher Engagement, Learning Capacity, and Workforce Optimization the higher will be Human Capital Driver and finally the higher also Innovation level will achieved.

## 6. Business solution

According to the result of the assessment using questionnaire tool, identified that Human Capital Drivers that has the lowest score are engagement and leadership and learning capacity while PLS tool discovered that engagement is driver that has the highest correlation score to innovation, which means that engagement become the most critical driver that drives organization innovation. In this case, the solution must concern about how to drive employee engagement in PT DI because this driver is the most critical driver that significantly drives organizational innovation performance as well as those that also represent areas of relative weakness.

Improvement of employee engagement in PT DI must be conducted effectively and should be undertaken with minimum cost because of the limited fund. Mone et al. (2011) conducted a study titled “Performance Management at the Wheel: Driving Employee Engagement in Organizations” that describe performance management could drive employee engagement in organization. First activity of performance management activities is setting performance and development goals. Goal setting is a critical component of performance management so when managers or executives set the goal collaboratively with employee, employees could become more engaged (Mone and London, 2009). In PT DI Implementation could be adopted GE “Work Out” process applied by routinely conducted initial discussion with employee about project execution. Second activity is providing ongoing feedback and recognition. According Mone and London (2009), effective use of feedback is an important component of performance management that if conducted well could improve employee

performance and finally will drive employee engagement. The implementation could be applied by built appropriate KPI (Key Performance Indicator). To achieve the best fit KPI, PT DI then conduct benchmarking to TELKOM, PINDAD, also to ASTRA to create KPI formulation in accordance to the conditions of corporate.

The third activity is managing employee development. Development, in the context of performance management, is the accumulation and application of new knowledge and skills over time, including the capacity to view the world through a more-informed inclusive perspective (Mone and London 2009). The solution implementation in this phase is built and implement career plan and also conduct coaching and transfer file and document. The fourth activity is conducting mid-year and year-end appraisals. According to Mone and London (2009) being satisfied with the overall quality of appraisal discussion, especially year-end appraisal discussion could improve engagement. The fifth activity is building a climate of trust and empowerment with employees. Trust and empowerment are related because trusts form the basis of empowerment. According to Mone and London (2009), having manager who could be trusted by employee is a primary driver of engagement. Managers in PT DI must improve their communication skill, capability to persuade, and being the role model. After improve their skills and build employee's trust, managers then need to empower employee by delegate authority to employee to give their best, examine their work and make decisions.

## 7. Conclusion

Based on the results of research, the conclusion of research result could describe as follows,

- i. Overall HCM implementation in PT DI still in "poor level", and driver that has the lowest score is Engagement, followed by Leadership Practice and Learning Capacity. It means that this area is PT DI weaknesses of implementing Human Capital Management, and PT DI must put serious attention in this three driver. Driver that has the highest score is Workforce Optimization which become although the score is not enough to achieve adequate level of HCM standard score.
- ii. The result of HCM measurement then linked with company performance outcome, which is innovation using Partial Least Square. The linkage result that Engagement has the strongest correlation to Innovation with correlation score 0.9024, followed by Learning Capacity (0.8939) and Workforce Optimization (0.8921). HCM measurement and the linkage shows that Engagement is the most critical HCM factor that significantly drives organizational performance as well as those that also represent areas of relative weakness. Engagement is the area where the organization should concentrate its HCM development efforts.
- iii. The solution to improve and enhance engagement is by conduct a proper performance management. There are several steps to conduct performance management through manager behaviour which are setting performance and development goals, providing ongoing feedback and recognition, managing employee development, conducting mid-year and year-end appraisals, and building a climate of trust and empowerment with employees

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Appendix. Indicator Loading Score

Variable	Indicator	Score
<b>HUMAN CAPITAL DRIVERS</b>		
<b>LEADERSHIP</b>	LCM 1	0.726312
	LCM 2	0.794396
	LCM 3	0.705902
	LIN 1	0.807600
	LIN 2	0.762792
	LIN 3	0.772172
	LSS 1	0.823436
	LSS 2	0.773232
	LSS 3	0.802216
	LSS 4	0.748907
	LSS 5	0.823116
	LPS 1	0.810682
	LPS 2	0.754582
<b>ENGAGEMENT</b>	EJD 1	0.794072
	EJD 2	0.634746
	EJD 4	0.715292
	ECE 2	0.786027
	ECE 3	0.830597
	ETI 1	0.797385
	ETI 2	0.769197
	ETI 3	0.63118
	ESY 1	0.796682
	ESY 2	0.796893
<b>KNOWLEDGE ACCESIBILITY</b>	KAV 1	0.669340
	KAV 2	0.766070
	KCT 1	0.756513
	KCT 2	0.616076
	KIS 1	0.660479
	KIS 2	0.838640
	KSY 1	0.821177
	KSY 2	0.782096
<b>WORKFORCE OPTIMIZATION</b>	WPR 1	0.748099
	WPR 2	0.711679

Variable	Indicator	Score	
<b>WORKFORCE OPTIMIZATION</b>	WCO 1	0.494287	
	WCO 2	0.674796	
	WAC 2	0.757840	
	WAC 3	0.603971	
	WAC 4	0.568049	
	WHD 1	0.681585	
	WHD 2	0.739739	
	WSY 1	0.871170	
	WSY 2	0.868385	
	WSY 3	0.867271	
	WSY 4	0.772846	
	<b>LEARNING CAPACITY</b>	LCI 1	0.789690
		LCI 2	0.715606
		LCI 3	0.650280
LCT 1		0.800765	
LCT 2		0.765384	
LCD 1		0.867586	
LCD 2		0.873267	
LCV		0.779514	
LCS		0.798851	
<b>INNOVATION</b>			
<b>IDEA GENERATION</b>	IIG 1	0.867978	
	IIG 2	0.842902	
	IIG 3	0.843581	
	IIG 4	0.603515	
	IIG 5	0.782280	
	IIG 6	0.840960	
<b>IDEA CONVERSION</b>	ICO 1	0.907957	
	ICO 2	0.869396	
	ICO 3	0.916398	
	ICO 4	0.827348	
<b>IDEA DIFFUSION</b>	IDI 1	0.891691	
	IDI 2	0.825516	
	IDI 3	0.902216	

# The Effect of The Spiritual Intelligence and The Spiritualized Leadership to Increase Organization Performance through Worker's Job Satisfaction

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## Abstract

Spiritual intelligence enables people to live with the greater meaning and depth and to look for a meaning beyond the physical needs and a low-level life in their business. Together with spiritual value established by the leader, it will assist in achieving the workers happiness and satisfaction with their jobs. In addition, it also will help the organizations to achieve business objectives and allow the employees to flourish within the organization. The main objective of this study is to analyze the effect of worker's spiritual intelligence and spiritualized leadership to achieve organization performance using workers job satisfaction as mediating variable in some Indonesian biggest developer companies. Statistical respondents in this research consist of workers in all business units owned by those developer companies. All the data is statistically analyzed using the Structural Equation Method model. Findings of this research indicate that there's a positive effect between spiritual intelligence, spiritual leadership and worker job satisfaction; in which spiritual leadership has a greatest effect into workers job satisfaction. There's also a positive effect between spiritual intelligence, spiritual leadership; worker job satisfaction and organization performance; in which worker job satisfaction has the greatest effect into organization performance, meanwhile the spiritual leadership doesn't have significant effect into organization performance. While the results showed that worker job satisfaction has the greatest effect on organization performance and the role of leader doesn't have significant effect into organization performance, future research should consider the importance role of the leader for organization performance by setting-up core value within organization. This study is the first, to the researcher's knowledge, to see the effect of all dimensions of spiritual intelligence, spiritualized leadership into workers job satisfaction and finally to improve organization performance.

*Keywords* : Spiritual intelligence, Spiritualized Leadership, Worker's Job Satisfaction, Organization Performance.

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## 1. Introduction

A paradigm shift in decision making, culture, and leadership which focuses on heightened employee spiritual intelligence and enhanced workplace spirituality presents a viable alternative for an organizational structure in today's competitive global business environment. The nature of work appears to have changed substantially. Work has been transformed into the place in which individuals develop themselves and people are searching for meaning in work. Spirituality is defines as the particular way the human person in all its richness, the relationship of the human person to the transcendent, the relationship between human persons, and the way to achieve personal growth are envisioned. Therefore there's an urgency to get better understanding a concept beyond technical skills which is called "*General Intelligence*". (Javaheri, Safarnia, Mollahosseini, 2013).

Intelligence, including spiritual intelligence represents a set of different skills and abilities that appear in the different forms in the social and historical contexts (Emmons, 2002). Implementation of spiritual intelligence and spirituality in the workplace and social organizations will increase efficiency and productivity in them but unfortunately, this is often forgotten in the today's technological society. Amram (2008) believed spiritual intelligence is including meaning sense and having mission in life, a sense of the sacredness in the life, balanced understanding of the matter value and believes to the world is getting better.

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With the growing competition in the market place as well as the customers becoming better informed and more choosy, it is important that the employees perform to their full extent so as not to satisfy the customers but to delight them. One of the goals of every leader is to improve the performance of their organization. Sales should increase, the number of turnovers should decline, the competitive edge should be attained and the reputation should be the best.

From year to year, the property industry in Indonesia will growing supported by the economic growth across the country (Simanungkalit, 2012). The escalation of income and the purchasing power of the people in general, as well as household consumption for the necessities in particular, make the property industry in Indonesia flourish. Based on Jones Lang Lassalle survey (2014), the growing rate of property industry in 2013 is at average 12.5% compare with the previous year. The sales volume of properties in Indonesia was dominated by the key experienced players in those industries. Therefore they're starting to diversify their line businesses into various projects, such as: education, healthcare system, multimedia, etc. Since their main businesses are more diversified, the owner chose the professional management team with various religious backgrounds to running their business by putting the spiritual core value as a guidance to do the business; emphasize the implementation of spiritual intelligence within organization; focus to make all employees happy in order to get higher company performances.

The huge potential market in the property industry is challenging the developer company in Indonesia to expand their business not limited in Jakarta but also in the surrounding areas include Tangerang region. They are focusing to build "township" in the region which is equipped with fully facilities such as: education, healthcare system, sports and leisure facilities, shopping malls and other entertainment facilities. There are six biggest property companies in Indonesia that have been building the housing and township projects in Tangerang, namely: Alam Sutera, Lippo Karawaci, Paramount Land, Ciputra, Sinar Mas Land, and Summarecon Agung.

Since the developer companies are now growing, getting bigger, having thousands of employees from various religious backgrounds and more diversified in the line of business, the property company will face some challenges to maintain their strong performances. Since all the religion taught about the spiritual common value of kindness and good relationship with the God, AlMighty and the other people, the companies have to pay attention keeping these spiritual value established by the owners to increase the organization performance that depends on the worker's job satisfaction.

Today, spiritual intelligence plays an important role in the organizations. Spiritual intelligence helps people assess their job. Happiness and positive morality has good effects for individuals; such that increase patience of people, raises the quality of communication, people will be altruist and help to others, have better job performance, work better and can better solve the problem. The spiritualized leadership will assist the workers to be happier in doing their work by setting up a spiritualized value or culture in the organization and encourage the cooperation among all the employees by creating the team work system to meet the customer expectation.

For decades, there have been limited researches studies on the issues of spiritual intelligence or workplace spirituality in the fields of management, leadership and organizational behaviour. Some researchers only focus on each concept either spiritual intelligence or organized culture or spiritualized leadership and considered each concept is a stand-alone without seeing the effect among those concepts. Hence, the present research is undertaken to get another perspectives which dimension gives the greatest effect by interconnecting the all dimension of employee spiritual intelligence and spiritualized leadership and their effects into the job satisfaction and finally into the organization performance.

Based on the explanation of the background, the research questions area formulated as follows: Are there any effects between spiritualized intelligence and spiritualized leadership into workers job satisfaction and which is

the dimension that give the most significantly effect to workers job satisfaction? And are there any effects of those dimensions into organizational performance?

The proposed research of this quantitative research study was to answer the research questions mentioned previously: to analyse the effect between the spiritual intelligence and the spiritualized leadership into workers job satisfaction and into organization performance.

The aims of this current study were as follows: (1) For the development of management science in the field of using the concept of spiritual intelligence and spiritualized leadership in increasing workers job satisfaction, (2) For further research to focus more on spirituality aspects in the organization to gain a strong workers job satisfaction.

## **2. Theoretical Framework And Hypotheses Development**

### **2.1 Spiritual Intelligence**

Spiritual intelligence is introduced as complementary part of human intelligence set, different from IQ and EQ. It informs people of their needs, desires, interests and abilities; an intelligence which helps them not only recognizes their inner values, but to explore new values. (Khorsidi, Ebaadi, 2012). Zohar and Marshall (2000) defined spiritual intelligence as intelligence which people address and solve problems of meaning and value, place their actions and live their life meaningfully. Thus, spiritual intelligence involves the cognitive processes resulting in both social modifications and consciousness transformation. Spirituality is a kind of inner consciousness and insight consciousness and is considered as a valuable personal capital.

Meanwhile, according to David B King (2008), spiritual intelligence is a set of adaptive mental capacities which are based on non-material and transcendent aspects of reality, specifically those which are related to the nature of one's existence, personal meaning, transcendence and heightened states of consciousness.

### **2.2 Spiritualized Leadership**

With regard to importance of spirituality at work, organizational leaders have a major role in reinforcing and developing spirituality at work (Soltani & Joneghani, 2012). The leaders whose mission is to train their followers mentally, emotionally, and spiritually have to particularly learn to integrate their IQ, EQ and SQ in the first place (Shabnam & Tung, 2012). An important part of managing an organization's culture is attracting and choosing those individuals who share the same values as the organization (Panahi & Abedinpoor, 2012).

Spiritual leadership comprises the values, attitudes and behaviours necessary to intrinsically motivate oneself and satisfy fundamental needs for spiritual well-being through calling and membership (Fry, 2009). Zohar and Marshall (2004) stated that management played a crucial role in establishing, shaping and maintaining the organizational culture since they're able to prioritize and establish innovation among employees in the organization and often reflected in employee beliefs, attitudes and behaviour which in turn represent needs and motivations.

### **2.3 Worker's Job Satisfaction**

Sisk and Torrance (2001) believe that the spiritual intelligence can deepen an individual's relationship with himself and others, or the larger world in everyday activities. They also can do their tasks with high accuracy, integrity and work ethics and it is expected that they deal with customers more effective. In addition, they can establish a better relationship with the customers, the colleagues, the supervisors and other people within organization. Dent, Higgins and Wharff (2005) finally arrived in conclusion that there's a correlation between productivity and spirituality.

Employee's work performance is important to the overall company or organization in order to achieve company's goal, develop products, provide services and attain competitive goal. (Ranni, Abidin, Hamid, 2013). Zohar and Marshall (2000) also stated that when spiritual intelligence is high, we appear to be intellectual and have proper behaviour. Individuals with high spiritual intelligence demonstrated higher measures of satisfaction and performance.

## 2.4 Organization Performance

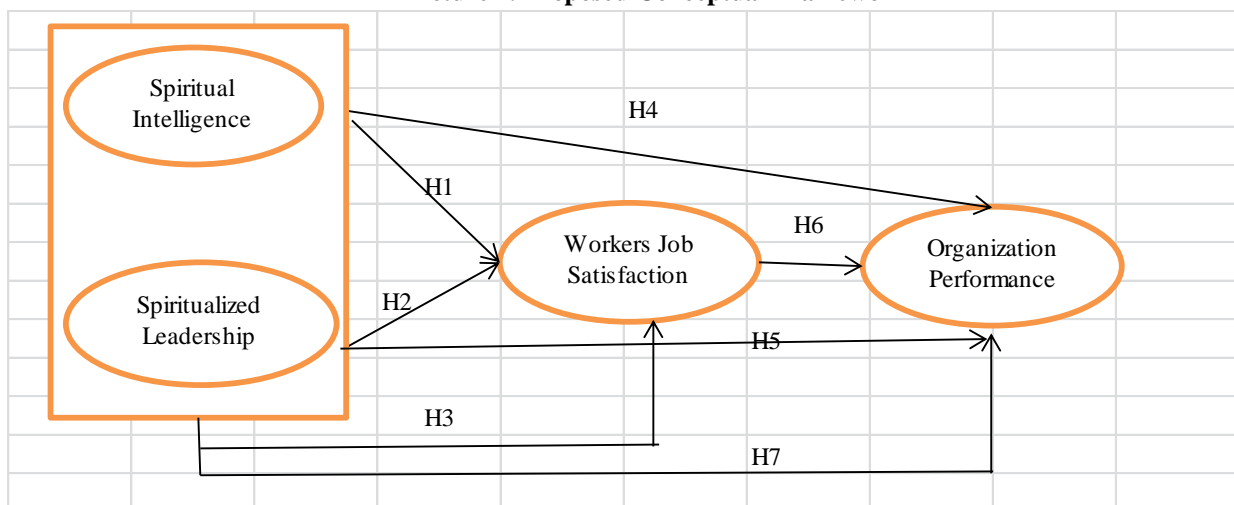
A spiritual business organization can be considered as the new competitive advantage since increased profits and performance has been representative of a spiritual business organization (Campuzano et. al, 2009). Employees who demonstrate spiritual traits have a greater understanding to adapt to a changing environment, the ability to trust others, and a high level of commitment to the organization (Mohamed et al, 2004). According to Campuzano et al (2009) spirituality promotes employee success and lead to self-actualization and employee satisfaction. A spiritual business organization increases employee satisfaction, the values of honesty, trust, respect, responsibility and integrity. A spiritual business organization represents these shared values and as the leadership effectively demonstrates these values with behavior, actions and as these values are up held throughout the organizational culture, employee satisfaction in increased and in the long-run will increase organizational performance including higher profits and success (Mitroff & Denton, 1999).

## 3. Conceptual Framework

The research of Khorsidi and GaneehEbaadi (2012) showed that there is a meaningful positive relationship between spiritual intelligence and job satisfaction. The increase of spiritual intelligence will increase job satisfaction. Amram and Dryer (2008) stated that the workplace spirituality can improve employee health, well-being, job satisfaction, efficiency, and productivity at the individual level. Workplace has been transformed into the forum in which individuals develop themselves and people are searching for meaning in work and a way to connect their work lives with their spiritual lives. According to Bass and Avolio (1993), the spirituality at the workplace has been growing. Therefore the managers and employees should move to this new paradigm by putting more meaning on relationships in the workplace. With regard to importance of spirituality at work, organizational leaders have a major role in reinforcing and developing spirituality at work.

The study by Ayranci (2011) concluded that the forms of spiritual intelligence played an important role into organization performance, especially financially. Some study suggested that workplace spirituality can be used to increase organizational competitiveness (Overell, 2003). Furthermore, Amram (2009) said the spiritualized culture and leadership in the organization will improve workers performance. A spiritual organization will increase employee awareness and as a result increases employee satisfaction and motivates employees to perform at a level of excellence. The leader influences the organization culture by values, connecting with others, practicing spirituality and living a transparent lifestyle and include self-realization and implements a balance between family, work and spirituality (Panahi & Abedinpoor, 2012). Relating with the previous discussion of the literature review, the conceptual framework proposed in this present study is as follow:

Picture 1. Proposed Conceptual Framework



Referring into the conceptual framework above, some hypotheses will be tested for this research:

- 1<sup>st</sup> Hypothesis : There is a significant effect between spiritual intelligence and worker's job satisfaction.
- 2<sup>nd</sup> Hypothesis : There is a positive effect between the spiritualized leadership and the worker's job satisfaction.
- 3<sup>rd</sup> Hypothesis : There are significant effects between workers spiritual intelligence and the spiritualized leadership into the worker's job satisfaction.
- 4<sup>th</sup> Hypothesis : There's a significant effect between the workers spiritual intelligence and the organization performance.
- 5<sup>th</sup> Hypothesis : There is an effect between the spiritualized leadership and the organization performance.
- 6<sup>th</sup> Hypothesis : There are strong effects of overall worker's job satisfaction into the organization performance.
- 7<sup>th</sup> Hypothesis: There are significant effects between spiritual intelligence and the spiritualized leadership into the organization performance.

## 4. Methodology

### 4.1. Measurement and Operational Variable

**Spiritual Intelligence.** The spiritual intelligence will be measured using 5 Integrated Spiritual Intelligence Scale (ISIS dimensions) from Amram & Dryer (2008) that consists some aspects of spiritual intelligence: consciousness; transcendence; meaning; truth and grace.

**Spiritualized Leadership.** This variable will be measured using dimension of transcendental spirituality leaderships develop by Kendall and Hullin (1969), namely as follows: management by common value; give identification to employee; empowerment of employees; spiritual developments of employee; relief spiritual energy of employee; re-informant of self- control; influence in other.

**Worker's Job Satisfaction.** The dimension of worker's job satisfaction will be measured using Job Descriptive Index that was developed by Landy, Shankster & Kohler, (1994), and having some indicators: the work nature; the attitude toward supervisors; the relations with co-workers; the opportunities for promotion; salary / benefit and the working condition.

**Organization Performance.** Chenhall & Langfield-Smith (2007) mentioned that organization performance have six dimensions namely: efficiency; effectiveness; development; satisfaction; innovation and quality.

The research questionnaires in this study consisted two parts. The first part was drawn for collecting demographic information profile of the respondents regarding their age, gender, education, work-tenure and job level in the organization. The second part of questionnaire represented the main research questions is taken from the previous study done by some researcher but some questions are adjusted with the current respondent and consists of 74 questions. Each question will be measured base on Likert 5<sup>th</sup> option spectrum coded from: Scale 1 = Very Disagree, Scale 2 = Disagree, Scale 3 = Doubtful, Scale 4 = Agree and Scale 5 = Very Agree.

**Research Design.** The research design in this study is hypotheses testing using cross-sectional time dimension; field study research, causality with individual as unit analysis. This research will discuss the sampling technique, instrumentation and the data screening before proceeding to the Structural Equation Models (SEM) technique in testing the hypothesized model and invariance analysis.

**Samples and Data Collection.** The developer companies that have been chosen as research object must meet the specification as follows: Listed as one of the 10 biggest developer companies in Indonesia based on the sales volume in 2012 and successful in developing the township project in Tangerang region, Banten. Statistical sample of this research has been selected from all the employees from the six big developer companies that have township projects in Tangerang region, Banten Province. Based on SEM rule of thumb, it's enough using comparison 5:1. This research has 74 parameters, so the minimum number of sample needs is = 370 respondents. As a backup for un-returned questionnaire, the researcher decided to distribute 500

questionnaires. In fact all questionnaires were returned by the respondents. Therefore, this study will analyze the data using 500 samples of respondent.

The way of collected the sample is called stratified random sampling. From the total of 4174 employees who are working at the developer's township project in Tangerang, the sample of each developer company is as following: Paramount Serpong (175), Sinar Mas (66), Lippo Karawaci (64), Alam Sutra (61), Summarecon Serpong (55) and Ciputra Group (34).

**Validity Testing.** Validity construct is used to determine the validity by correlating among scores for each item in form of questions or total score using Pearson correlation. Based on validity testing in the questionnaire for each variable for 50 respondents (pre-test) with critical  $t > 0.799$  showing that all items have greater correlation value and VALID.

**Reliability Testing.** The elements the reliability of the questionnaire evaluated by Cronbach's alpha coefficient and admissible is all values yielded alpha coefficient exceeded the values of 0.50 suggested by Nunnally (1978). The pre-test showed that the alpha reliability value is greater than 0.789 and VALID.

**Data Analysis Method.** Structural Equation Models (SEM) is taken to analyze the data using the Lisrel Program. Spiritual intelligence is measured by five dimensions ( $X_1, X_2, X_3, X_4$  and  $X_5$ ); spiritualized leadership is measured by seven dimensions ( $X_6, X_7, X_8, X_9, X_{10}, X_{11}$  and  $X_{12}$ ), the worker's job satisfaction is measured by six dimensions ( $Y_1, Y_2, Y_3, Y_4, Y_5$  and  $Y_6$ ) and the organization performance is measured by six dimensions ( $Y_7, Y_8, Y_9, Y_{10}, Y_{11}$  and  $Y_{12}$ ).

**Test of Model Fit Measurement.** Hair et.al (2010) said that if the overall model has been fit, measurement of every construct can be done for un-dimensional and reliability. In this study, Confirmatory Factor Analysis (CFA) is used because the research model and latent variables have been determined before.

**Structural Model Fit Test.** Evaluation on analysis of structural model includes examination of correlation of latent variables in this research. If significance degree reaches  $\alpha = 0.05$  and  $t$ -value  $\geq 1.96$ , then significance of every coefficient that represents causal relation that is hypothesized can be tested systematically.

**Value of Latent Variables.** Value of latent variable with measurement variable that consists of one component can be calculated. Value of the latent variable is used as measurement variable of its latent variables. While for latent variable that has two or more components for its measurement variables, Second Order Confirmatory Factor Analysis (CFA) is used.

**Test of Structural Model Fitness.** The Goodness-of Fit (GOF) indicates how well the specified model reproduces the observed variance matrix among the indicator items. The following table shows that the model fit compares the theory to reality by assessing the similarity of the estimated covariance matrix (theory) to the reality (the observed covariance matrix). Only AGFI indicator model that shows Marginal Fit with the testing result value is  $\leq 0.90$ . Since the observed and estimated covariance matrices would be the same, it can be stated that this research theory were perfect. Meanwhile, the result for goodness for fit testing in this research is as follows:

**Table 1**  
**Design Summary for Goodness for Fit Testing Model**

GOF Indicator	Estimated Value	Testing Result	Conclusion
<i>Absolute Fit Value</i>			
GFI	$GFI \geq 0.90$	0.90	Good Fit
RMSEA	$RMSEA < 0.08$	0.048	Good Fit
<i>Incremental Fit Value</i>			
NNFI	$NNFI > 0.90$	0.98	Good Fit
NFI	$NFI > 0.90$	0.97	Good Fit
AGFI	$AGFI > 0.90$	0.89	Marginal Fit

RFI	RFI > 0.90	0.96	Good Fit
IFI	IFI > 0.90	0.98	Good Fit
CFI	CFI > 0.90	0.98	Good Fit

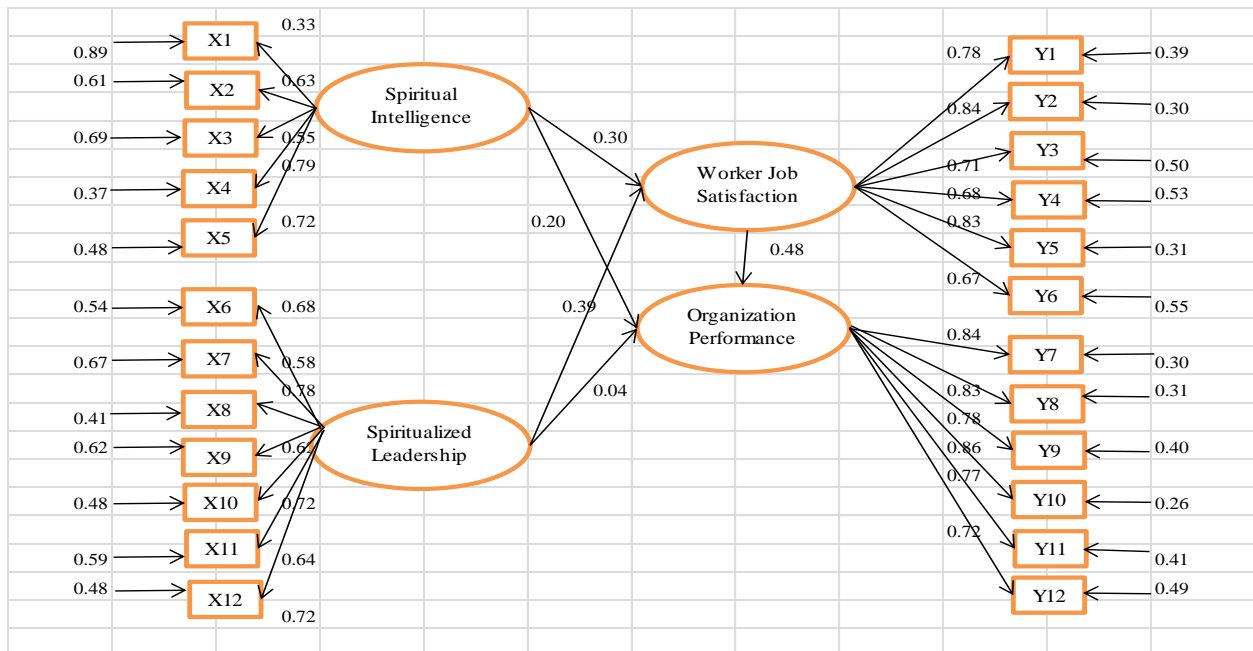
Source: Data Analysis using LISREL 8.70

## 5. Results And Discussions

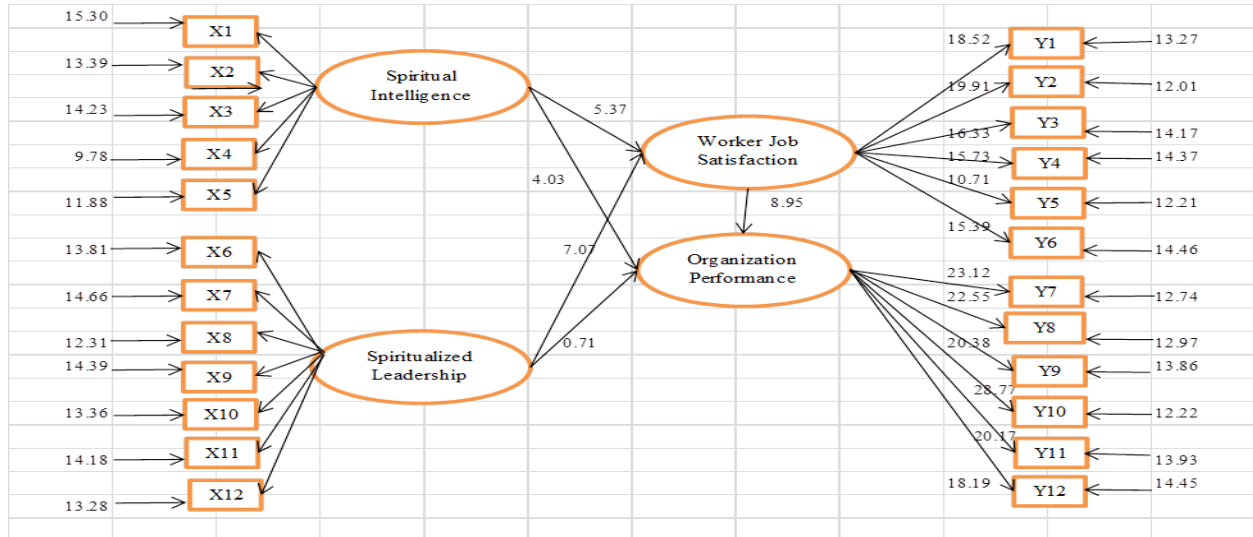
### 5.1. Result of Hypothetical Test

Following are the hypotheses testing the effect of spiritual intelligence,, spiritualized leadership and worker's job satisfaction into organizational performance using path diagram.

**Picture 2. Structural Diagram (Standardized)**  
**The Effect of Spiritual Intelligence, Spiritualized Leadership and Workers Job Satisfaction into Organization Performance**



**Picture 3. Structural Diagram (*t-Value*)**  
**The Effect of Spiritual Intelligence, Spiritualized Leadership and Workers Job Satisfaction into Organization Performance**



The results of Hypotheses Testing are shown in the following table:

**Table 2**  
**Summary of Result of Hypotheses Testing**

Hypothesis	VARIABLES	Coefficient Standard	t-Value	Statistical Conclusion
H1	Spiritual Intelligence (SI) -> Worker Job Satisfaction (WJS)	0.30	5.37	Data Supported
H2	Spiritualized Leadership (SL) -> Worker Job Satisfaction (WJS)	0.39	7.07	Data Supported
H3	Spiritual Intelligence (SI) and Spiritualized Leadership (SL) -> Worker Job Satisfaction (WJS)	0.27	9.34	Data Supported
H4	Spiritual Intelligence (SI) -> Organization Performance (OP)	0.20	4.03	Data Supported
H5	Spiritualized Leadership (SL) -> Organization Performance (OP)	0.04	0.71	Data Supported
H6	Workers Job Satisfaction (WJS) -> Organization Performance (OP)	0.48	8.95	Data Supported
H7	Spiritual Intelligence (SI), Spiritualized Leadership (SL), Worker Job Satisfaction (WJS) -> Organization Performance (OP)	0.24	10.06	Data Supported

From data analysis, the study able to create a Structural Equation Model for Worker's Job Satisfaction and Organization Performance as follows:

$$\begin{aligned}
 \text{WJS} &= 0.30 * \text{SI} + 0.39 * \text{SL}, \text{ Errorvar.} = 0.59, R^2 = 0.41 \\
 &\quad (0.055) \quad (0.051) \quad (0.063) \\
 &\quad 5.37 \quad 7.07 \quad 9.34 \\
 \text{OP} &= 0.48 * \text{WJS} + 0.20 * \text{SI} + 0.04 * \text{SL}, \text{ Errorvar.} = 0.43, R^2 = 0.57 \\
 &\quad (0.054) \quad (0.050) \quad (0.050) \quad (0.043) \\
 &\quad 8.95 \quad 4.03 \quad 0.71 \quad 10.06 \\
 &\text{(Source: LISREL OUTPUT 8.70)}
 \end{aligned}$$

The result of all hypothetical tests indicates that all hypotheses tested on all respondents are supported by data.

**Hypothesis 1: There is a significant effect between spiritual intelligence and worker's job satisfaction.** Spiritual intelligence has a positive effect into the worker job satisfaction, because  $t$ -value  $\geq 2$  ( $5.37 \geq 2$ ), with the rate of effect 0.30. This data is supported the research of Khorsidi and Ganeeh Ebaadi (2012) that said there was a meaningful positive relationship between spiritual intelligence and job satisfaction. The findings of this study also support the study by Zohar and Marshall (2000), stated that when spiritual intelligence is high, the employee will be intellectual and have proper behavior.

**Hypothesis 2: There is a positive effect between the spiritualized leadership and the worker's job satisfaction.** Spiritualized leadership has the greatest effect into the worker job satisfaction, because  $t$ -value  $\geq 2$  ( $7.07 \geq 2$ ), with the rate of effect 0.39. The leader can enhance the leadership effect on employee job satisfaction (Conger and Kanungo, 1988), because the leader helps in the maintenance of interpersonal/interdependent relationships, and keeps employee attention focused on goal achievement. Transcendental leadership is associated with job satisfaction through its attributes of vision, expectation, modeling, stimulation, support, and attainment of the group goal (Bass and Avolio, 1993).

**Hypothesis 3: There are significant effects between workers spiritual intelligence and the spiritualized leadership into the worker's job satisfaction.** All dimensions of spiritual intelligence and spiritualized leadership together have effect into the worker job satisfaction, because  $t$ -value  $\geq 2$  ( $9.34 \geq 2$ ), with the contribution rate 41%. Therefore, in partial, spiritualized leadership has a greater effect (0.39) than spiritual intelligence.

**Hypothesis 4: There's a significant effect between the workers spiritual intelligence and the organization performance.** Spiritual intelligence has a positive effect into organization performance, because  $t$ -value  $\geq 2$  ( $4.03 \geq 2$ ), with the rate of effect 0.20. This conclusion supports the research done by Abedi and Rastgar (2007) that the forms of spiritual intelligence played an important role into organization performance.

**Hypothesis 5: There is an effect between the spiritualized leadership and the organization performance.** Spiritualized leadership has the smallest effect into organization performance, because  $t$ -value  $\leq 2$  ( $0.71 \leq 2$ ), with the rate of effect 0.04. Leadership behaviors such as problem solving and providing workers relevant information about decisions, plans, and activities are particularly important (Bass, 1985).

**Hypothesis 6: There are strong effects of overall worker's job satisfaction into the organization performance.** Worker's job satisfaction has the highest effect into organization performance, because  $t$ -value  $\geq 2$  ( $8.95 \geq 2$ ), with the rate of effect 0.48. Heskett, et al.(1994) suggest that satisfied employees will deliver high service quality. Higher employee satisfaction levels lead to high customer satisfaction, and ultimately affect customer loyalty and profitability.

**Hypothesis 7: There are significant effects between spiritual intelligence and the spiritualized leadership into the organization performance.** All dimensions of spiritual intelligence and spiritualized leadership and worker job satisfaction together have effect into organization performance, because  $t$ -value  $\geq 2$  ( $10.06 \geq 2$ ), with the contribution rate 57%. But, in partial, workers job satisfaction has a greater effect (0.48) than spiritual intelligence and spiritualized leadership.



## 6. Theoretical Implication

The first hypothesis data that are collected to obtain answers if there is positive effect of variable spiritualized intelligence into worker job satisfaction. The results of the data analysis showed that there's a meaningful positive relationship between spiritual intelligence and job satisfaction among workers, that is, increase of spiritual intelligence increases job satisfaction level. This finding is in accordance with findings of King (2001).

This study proved the second hypothesis which stated that spiritualized leadership has a greatest effect into worker's job satisfaction. The leader must be able to empower their employees by encouraging them to finish the job on-time, create a good cooperation among divisions to avoid conflict and maintain a good relationship at all level organization by implementing an open communication system.

The research results also showed that all dimensions of spiritualized intelligence and spiritualized leadership together have a significant effect into job satisfaction performance with the spiritualized leadership has the greatest effect into worker job satisfaction. This data supported the previous study done by Kumar (2012) who was stated that the spiritual leader will develop relationship among employee to increase the working performance.

The fourth hypothesis also proven that spiritual intelligence has a moderate effect into organization performance. This conclusion supported many studies that have demonstrated the spiritual intelligence have large impact on the job satisfaction on the motivation of workers, while the level of motivation has an impact on productivity, and hence also on performance of business organizations. (Anderson, et al, 1993).

One of the result of the study also showed that spiritualized leadership doesn't have significance effect into organization performance. A spiritualized leader must achieve workers job satisfaction before getting a positive organizational performance. This study also supported the previous study done by some researcher. Lowder (2011) stated that leadership is the ability to inspire confidence and support among the people who are needed to achieve organizational goals.

Workers job satisfaction has the highest effect into organization performance. The success of the workers in serving the customer needs is also highly dependent with the active involvement and participation of their supervisors. This data results supported the previous research said that employee job satisfaction exerts a significant positive effect on customer satisfaction.

All dimensions of spiritual intelligence, spiritualized leadership and worker job satisfaction together have effect into organization performance which workers job satisfaction has a greater effect than others. Therefore, the job satisfaction has the greatest effect into organization performance. This study showed that individuals with high spiritual intelligence demonstrated higher measure of satisfaction and performance and will give a greater contribution into organization. Spiritual intelligence can provide unique means for the workers to solve any problems they are facing in their work's environment. It also helps to articulate the connection between organization and worker personal values; inspire and motivate workers by connecting their personal purpose with meaning of work in the organization. Thus it is helping in socialization of the organization culture and creating compelling vision and mission statement for both workers and the organization.

## 7. Managerial Implication

The results of this study also have original implications for businesses that workers job satisfaction has the most significant effects into the organization performances in developer companies and the role of spiritual leadership is needed to make workers satisfied. Developer companies which are highly dependent on their marketing teams or property agents in selling their products must regularly give appropriate training and establish a corporate value that are put the customers as the top priority.

## 8. Suggested Further Research

First, it is very important for further studies to consider other variables that can affect the organization performance, such as: organization reputation or brand name; customer relationship management; information technology and any other factors that might have dominant effect to increase the organization performance. Second, the further research will give a different result analysis if the spiritualized leadership is positioning as an intervening variable and has a significant direct effect into organization performance. Third, the further researches can also enrich their studies by linking the demographic data of the respondents directly to workers performance and organization performance. Fourth, The futures studies are being required to further to develop, refine and validate future versions of the usage of SEM analyze methods with more diversified respondents from different organizations and from all the developer's project across Indonesian to get more generalized data analysis. Fifth, including the concept CSR should be considered as an important variable for the further studies.

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## Investigation of User's Emotional Aspect in Information Search Process

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### Abstract

Emotion has significant influence in information search process. The influence was demonstrated in the principle of uncertainty introduced by Carol Kuhlthau. Motivated by her work, a number of works have been carried out to investigate emotional aspects of interaction between information searchers and information retrieval systems. This paper presents a preliminary study exploring the relations between information search attributes and the experience of emotion in information search process. The common premise is that certain attributes of information search process could trigger specific emotion. Our study shows that six aspects of information search attributes – search engines, Internet browser, content in a page, information presentation, search tasks, and time constraints – are commonly being appraised by information searchers. Evidences suggest that these attributes, upon being appraised by information searchers, have tendency to influence the emotion experienced by information searchers. The implications of this finding towards the design of information retrieval system are discussed.

*Key words:* emotion, appraisal, user interaction, information search

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### 1. Introduction

Though information systems bring with its many benefits such as bringing forward the so-called effortless promises of accessing countless information, information systems' users have been reported to experience various cognitive and affective challenges such as information overload due to vast information availability. This preliminary explorative study was our first attempt to investigate affective aspects – in particular emotional aspect - in online information search process that are mainly driven by cognitive appraisals. Our investigation was led by our major query about how information systems are being appraised by information searchers that might cause them to experience certain emotional states during their search activities. We anticipated that our findings might provide a richer insight in understanding the interaction between cognitive appraisals and emotions in relation to information systems.

The outline of the paper is as follows. A short review on relevant previous works in information search is presented in the following section. Next, the design of this study is described; followed by the analysis of the results. Finally, we conclude by discussing the results and their implications to future research.

### 2. Previous Works

The seminal work of Kuhlthau [1] has demonstrated the significance of affects – emotions in particular – in terms of influencing the way people conduct their information search. As people progress in their information search activities from one stage to another, the study found that each stage is accompanied by at least one strong emotional state. This study has inspired various works which further explore about this aspect of information search in various information spaces such as physical libraries and electronic information systems. These works

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have demonstrated that the attributes of search tasks, the searchers' personality, and the design of information systems are three major factors that influence emotions during information search activities.

There were two approaches used by previous studies to administer search tasks. This first approach refers to search tasks assigned by the experimenter for participants to complete in a controlled environment, normally conducted in a research lab. Using this approach, the experimenter has the ability to control and manipulate certain parameters of the search tasks. These parameters include their types, complexity, ambiguity and difficulty [8]. For example, a study by [2] has revealed that as the difficulty and complexity of the search tasks increased, positive emotions eroded and negative emotions intensified during the search. The study also has noted that the searcher's interest level declined towards attempting search tasks with higher difficulties. This suggests that the searcher's interest towards the difficult search tasks may contemplate the valence of one's emotion.

On the other hand, a study by [3] has found that information searchers searched differently for self-chosen tasks in comparison to assigned tasks. This is the second approach where participants were given freedom to choose their own search tasks. In addition, the search activities were conducted in a more natural setting such as at home or school on a daily basis. Nahl [4] has explored the interactions in a more naturalistic setting where a group of college students were asked to complete a questionnaire for every Web search done for a number of days. Her analysis showed that personalities of the searchers also contribute the emotion being experienced during the search. Searchers with higher levels of optimism and self-efficacy were able to overcome negative experiences during the search. They also reported positive feedback on their search outcomes and the overall information search process. In conclusion, the study found that participants were highly motivated to complete their own search tasks, and produced relevant outcomes for the tasks. Due to the nature that participants were in control of the search topic, they were confident and highly regarded their search skills.

Another study by Kim [5] revealed that information searchers with high ability to control their emotion were found to performed explorative search better than their counterparts. It was also found by [6] that searchers in happy mood tend to search for more general information. Besides search tasks and searchers' personality, [7] has demonstrated that interface and search features did elicit certain emotions among children when they search online.

The work presented in this paper complements the existing knowledge in this area by offering a specific investigation on how appraisals towards information search attributes could elicit emotion during information search activities. This study specifically examines which attributes of information systems are being appraised by information searchers during interaction with the systems.

### 3. Methodology

The emphasis of this study is to gain insight about emotions felt by information searchers as they make appraisals throughout information search process. Qualitative method was used to gather user data. For this preliminary exploration, five participants were recruited; of which their academic backgrounds were in computer science. Convenient sampling was used to select participants.

Participants were asked to solve two assigned search tasks. Each task must be completed within fifteen minutes. The degree of difficulty and the level of ambiguity of the tasks were manipulated by the experimenter. Task 1 was an open-ended information search task with a higher degree of difficulty and a higher level of ambiguity. Meanwhile, Task 2 contains multiple short questions that were easy and direct. Participants were informed that they would be paid only when they managed to complete the tasks by providing the right answers. This technique was deemed as an enabler to instill intrinsic motivation that would encourage participants to treat the assigned search tasks as their own, thus minimizing the effects of assigned tasks [3].

During the search session, the computer screens of participants' search activities were video recorded. Participants were allowed to stop earlier if they had completed the search tasks. After the search session ended,

participants were interviewed. In the interview, participants were asked to give an account about the entire sessions, in particular identifying moments where peculiar emotional states were experienced, while watching the re-play of their computer screens. Data from the post-search interview was analyzed using content analysis method. Conceptual themes that emerged from the data were identified.

#### 4. Findings

Content analysis of the interview data revealed that there were five aspects of information search process commonly being appraised by participants. Search engines, Internet browser, content in a page, information layout, and search tasks are the aspects being appraised by the participants.

##### 4.1. Search Engines and Internet Browser

The analysis revealed that the type of search engine used could exert stress among participants. One participant blamed the search engine and Internet browser he used for the negative experience, and regretted for not using other search engines.

*“OK, I don’t really expect more time, I was expecting it to be more straight forward by the search engine. I don’t think it gave me too much stress, but I thought OH NO. I have to search more because I thought it will be much easier..but I think this [irrelevant search results], I’m blaming the search engine. I could have tried something else but the important issue is the browser.” [P2]*

On the other hand, participants showed disappointment and annoyance when search engines produced results that were not relevant to the task requirements.

Researcher: *“And then it came out with this result. How do you feel?”*

Participant: *“I feel like ‘kicking’ it. I didn’t even write something like that [referring to her entering wrong search terms]. Since it’s not successful, I went to Google. And I think this one is not useful as well [referring to one of the sites].” [P5]*

On the contrary, relevant results by search engines made participants happy, and further boosted their interest to further explore the results to find correct answers for the tasks.

*“I was quite surprised because I got this scientists [in the search results] very quickly...and scientists are very clear, and I was so glad I found Isaac Newton. Actually I don’t know if he was in 17<sup>th</sup> century. I was pleased upon that.”[P3]*

##### 4.2. Content in a Page and Information Presentations

Participants were upset when the information required to satisfy certain requirements of the tasks were not found from the web pages viewed. In addition, they also expecting to obtain information that was categorized according to certain labels or criteria.

*“...but I spent time in this site because I like the categorization, but they don’t have a date – by date... They only have by names. That is a little bit disappointing, to be honest – not to be able to find dates.” [P2]*

On the contrary to the experiences identified earlier, participants showed satisfaction with information they deemed as complete, especially when supporting information was included such as pictures. They also expressed likeness towards information categorization because it allows them to easily access specific information, thus, speed-up their search.

*“At first I didn’t take this camera. I thought it is a little bit strange. It looks a bit more fashionable, too fashionable [referring to the picture of the camera]. The camera is just for work. Well, I have to take it because I couldn’t find another one which is looking within the dimension and portable, because the other one is big - for professional. I put 10 Mega pixels so I just copy paste 10 10 10. But the other one was like 12, and the other one was 12.1.” [P6]*

#### 4. 3. Search Tasks and Time Constraints

Interest towards search topic, coupled with time constraint imposed on task completion influenced the experience of emotion among participants. Few participants were disappointed when they were assigned topics of not their interest. Meanwhile, the limited time frame also induced nervousness and stress among participants when they search was disrupted due to irrelevant search results or missing information on web pages since these obstacles would delay their efforts to complete the task on time. They also felt dissatisfaction by not being able to complete the search tasks within the given time frame.

*“I was quite nervous because when you told me that I have another 5 minutes, I just have two cars, and I was like, this is not good.” [P4]*

In addition, certain terms in the difficult search tasks were set to be ambiguous. This ambiguity has caused participants to spend time searching for meaning of those terms prior to searching answers for the tasks.

*“I think somewhere it has special meaning. It is about the business or retailing all that. So I’m not sure if could find the answers. So I just want to make sure that I understand what is the in-store. So, I’m not yet clear whether the in-store ones are the smaller shops or some little kiosk inside the big stores. I thought I was stress, but I have a task, so let us try to give an answer. So, let us stick to the task and enough of educating.” [P2]*

#### 5. Implication to Design

To support searchers during negative emotional experience, evidence suggests that when searchers were uncertain about task requirements, they were expecting to obtain accurate and precise results from search engines. Besides that, information categorization also was found to be very useful because it provides easy and quick access to the desired [9], especially when searchers are exploring information for topics they have no prior knowledge. The information categorization also helps to boost their interests to further explore about the topic. Gradually, the structured and well-organized information could help to improve the interaction, thus promotes the experience of positive emotions.

Our finding also suggests that information searchers experience positive emotion when they encountered relevant information or information that was consistent with their expectations during the quest. The positive experience was amplified when the information found was also novel to their current knowledge. On the other hand, when information was appraised as not relevant, or maybe relevant but not consistent with one’s expectation; negative emotion was experienced. Although motivation was degraded when searchers experience negative emotion, due to controlled experiment setting, searchers felt obliged to complete the task within the given time frame. Therefore, searchers need to cope with the negative experience in order to complete the tasks they deemed as challenging within a limited time frame. This finding suggests that coping mechanisms play a role in helping information searchers re-assess and re-formulate their search tactics [10], especially when they experience negative emotion.

Meanwhile, neutral emotion was commonly felt when searchers were assessing the relevance of search results and information they found in the system. The neutral feeling was necessary when making judgment because it helps searchers to weight the consequences of every choice they have carefully; and later selecting one action

that could lead them to the completion of the tasks. The experience of either positive or negative information might impose some bias to their decisions [11].

This study is not without limitations. Given that the number of participants is small, generalization of this finding must be used with cautious. In addition, we do not include the influences of other confounding variables such as personality, major of study, age, and internet skills on emotional experience during information search. These limitations could be addressed in future works.

## 6. Conclusion

This study has demonstrated a promising opportunity to further investigate how the design of information search attributes and emotions are related during interaction between information searchers and information systems. We anticipate that our method and analysis may assist designers to improve the existing practice in designing information systems such as digital library, websites or search engines. Besides that, it might also useful for designers to take into considerations about internal aspects of the information searchers who need to deal with various degrees of task complexity. By means of understanding how these attributes are affecting the emotion of information searchers, it is possible to design a system that will be able to address the needs and at the same time, could provide support to the emotional challenges experience by information searchers. This possibility may instill positive interaction between information searchers and information systems, especially during tough times.

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# Manufacturing Strategy and Competitive Strategy and Its Effect on the Performance of Small Batik Industries (Case Study: Batik Trusmi Cirebon)

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## Abstract

The center of small batik industries, batik Trusmi, recorded that there are 416 business units that absorb 3753 workforce, they had batik business development opportunities with the support of a highly skilled workforce, with domestic trade marketing or even local center industries have entered the international market by exporting to Japan, Brunei, Thailand and Philippines. Marketing that entered the international markets need to increase global competition in batik business to respond to the economic conditions, batik business should have competitive advantages. Manufacturing companies have to adopt and implement manufacturing strategies if they want to maintain a competitive advantage. This research method is using Structural Equation Model (SEM), with indicators of manufacturing strategy include: cost, flexibility, innovation, technology, knowledge, skills, quality, supplier and delivery. Indicators of competitive strategy are: pure differentiation, focus, market penetration, product development and market development. Indicators of the performance of the company include: advantages, development, efficiency, productivity and customer satisfaction. The results showed no effect on competitive strategy combined with the manufacturing strategy. Competitive strategy also does not affect the performance of the company. However, manufacturing strategies affect the performance of the company. So the competitiveness of Batik Trusmi can be improved by applying appropriate manufacturing strategy based on the indicators that have been studied.

*Keywords:* Manufacturing Strategy, Competitive strategy, Corporate Performance

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## 1. Introduction

Small batik industry shows that the performance can be improved by the marketing of competitive advantage where competitive advantage can be created by innovating products (Supreme, 2006). In batik companies, some of the resources that are considered important are labor, network, reputation, culture and marketing (Abdul Karim, 2009).

Marketing capability is important to ensure every batik product can be sold in accordance with market demand. Manufacturing strategy is defined as the dimension that must be owned by a company's production system to support the market demand where companies compete. (Krawjesky and Ritzman, 2002). Common the manufacturing strategy research is to describe the company's choice of emphasis or priority of the company's competitive capabilities. According to some researchers, manufacturing strategy represents a competitive priority (Leong et al., 1990; Burgess et al., 1998).

This study emphasizes the internal aspects of the company, especially in relation to the process of decision-making strategies, good business strategy or manufacturing strategy. So this research starts from development issues using the basic research on implementation strategy on the levels of functional or business units. Skinner (1978) affirms that the strategy of manufacturing (manufacturing strategy) is different from the business

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strategy, because the manufacturing strategy is just one functional component, which relates to the implementation of business strategy or marketing strategy. Therefore, the manufacturing strategy is referred to as sub-functional strategy.

Trusmi Batik Cirebon is the small batik industry that chosen as the site of this study. This is because the small batik industry has competitive strategy and has the same background with the problems that described earlier. The center of small batik industries, batik Trusmi, recorded that there are 416 business units that absorb 3753 workforce. In terms of industrial development opportunities supported by the batik industry with skilled workforce and sufficient land allows businessmen to run their business activities. In marketing terms this refers to the center the domestic market or even the center of local industry have been enter the international market by exporting to Japan, Brunei, Thailand and the Philippines.

Increased global competition, technological change and rapid market, increasing complexity and uncertainty create new competitive environment. These changes led to a manufacturing company carefully to make changes from the industrial system into a system based on the efficiency of the new industry which success depends on rapid response to customer demand for a quality product and in accordance with the requirements. To respond to these conditions and to achieve a sustainable competitive advantage in today's competitive business situations, manufacturing companies must adopt and implement a strategy if it is to remain competitive manufacturing (Lina, 2007). In the process of manufacturing strategy, environmental considerations play a significant role in determining the manufacturing strategy.

The global trend in manufacturing companies in particular, it will impose them to face the impact of strategy formulation and implementation, as well as the challenge of facing this trend as an in-depth consideration and use it for manufacturing excellence. (Tuti and Agastya, 1999).

To achieve an effective performance, manufacturers must seek to integrate all stakeholders in decision making. In a study conducted by The Boston University Manufacturing Roundtable (1990), found that the need to implement the manufacturing strategy and business strategy effectively by managers.

The interests of managers and researchers to manufacturing strategy is currently being increased, in line with many industry that seeks to find practical solutions to environmental change and increases competitive pressures (Hayes and Abernathy, 1980).

In this study manufacturing strategy is defined as a strategy that is used to coordinate the manufacturing decision making; including voter technology, suppliers, production planning and control system, and the implementation of quality manpower (Bates et. al., 1995).

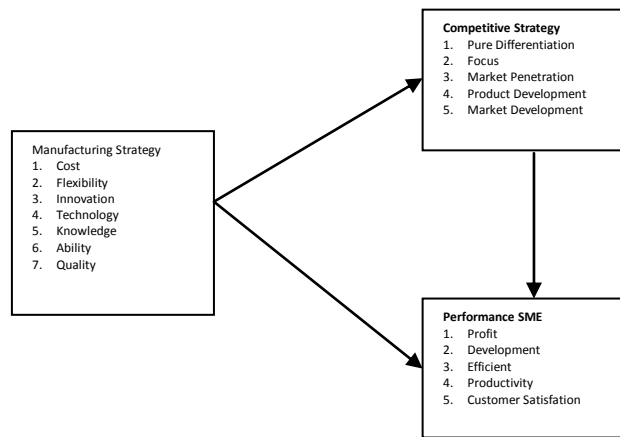
The purpose of this study is to:

1. Analyze the influence of manufacturing strategy on competitive strategy
2. Analyze the influences of the Competitive Strategy on Company's performance
3. Analyze the influences of Manufacturing Strategies on Company's Performance

## 2. Research Methodology

This research is an explanatory research (research explanation) that the study aimed to analyze the relationship between one variable with another variable or how one variable affects the other variable.

A sample of 108 small industry players Trusmi Cirebon batik. How to sampling for this study was using the sampling technique of non random sampling by purposive sampling, the sampling is based on a reasonable assessment of meeting the requirements to be sampled or sampling appropriate research purposes (to obtain accurate data). Once the data is collected and has met the test of the adequacy of the sample, the data obtained will be analyzed by SEM with software lisrel 8.70. Fig.1. displayed image model of research and formulation of research hypotheses.



**Fig. 1. General Research Model**

The independent variable is the Manufacturing Strategy (X) of which the dependent variable is a Competitive Advantage (Y) and Company's Performance (Z), although the stage of processing the data of each variable can be the independent variable and the dependent variable. Based on previous studies there are hypotheses that can be proposed as follows:

- H1: The influences of Competitive Strategy on Manufacturing Strategy
- H2: The influences of Competitive Strategy on Company's performance
- H3: The influences of Manufacturing Strategies on Company's Performance

### 3. Results And Discussion

Descriptive Variables

Variable Model Manufacturing Strategies

In chapter variable analysis constructs have obtained some of the values of each of the indicators that describe the manufacturing strategy as follows:

Table 1. Value of CFA Manufacture Strategy Variable Recapitulation

No	Factor	Loading Factor	T <sub>value</sub>	R2	Description
1	Cost	0.58	5.61	0.33	Valid and Significant
2	Flexibility	0.68	6.8	0.46	Valid and Significant
3	Innovation	0.62	5.99	0.38	Valid and Significant
4	Technology	0.52	4.85	0.27	Valid and Significant
5	Knowledge	0.53	5.12	0.29	Valid and Significant
6	Ability	0.47	4.59	0.22	No Valid-Significant
7	Quality	0.35	3.41	0.13	No Valid-Significant

Based on the above sequence, can be used as a basis for consideration in making policy or model of manufacturing strategy on the Trusmi Batik Industry. The craftsmen should prioritize indicators of flexibility in implementing manufacturing strategies than other indicators, because it has the highest factor loading. The next priority is an indicator which has a factor loading below.

#### Competitive Strategy Variables Model

In chapter variable analysis constructs have obtained some of the values of each indicator that describes competitive strategy as follows:

Table 2. Value of CFA Competitive Strategy Variable Recapitulation

No	Factor	Loading Factor	T <sub>value</sub>	R2	Description
1	Pure Differentiation	0.52	-	0.27	Valid and Significant
2	Focus	0.69	5.08	0.48	Valid and Significant
3	Market Penetration	0.68	3.78	0.46	Valid and Significant
4	Product Development	0.58	3.61	0.34	Valid and Significant
5	Market Development	0.65	3.39	0.42	Valid and Significant

Based on the above sequence, can be used as basis for consideration in making policy or model of competitive strategy in the batik industry Trusmi. The crafts men should prioritize the focus indicator in implementing competitive strategy than any other indicator, because it has the highest factor loading. The next priority is an indicator which has a factor loading below.

#### Variable Model Company Performance

In chapter variable analysis constructs have obtained some of the values of each of the indicators that describe the performance of the company as follows:

Table 3. Recapitulation CFA Variable Value Company Performance

No	Factor	Loading Factor	T <sub>value</sub>	R2	Description
1	Profit	0.52	-	0.28	Valid and Significant
2	Development	0.93	5.54	0.86	Valid and Significant
3	Efficiency	0.43	4.39	0.18	No Valid-Significant
4	Productivity	0.84	5.54	0.71	Valid and Significant
5	Customer Satisfaction	0.40	3.47	0.16	No Valid-Significant

Based on the above sequence, can be used as a basis of performance measurement of how far the company is the development of means to grow into a large company is an indicator of SMEs Batik has a good performance. The craftsmen should prioritize development indicators in implementing competitive strategy than any other

indicator, because it has the highest factor loading. The next priority is an indicator which has a factor loading below.

#### Hypothesis Testing

- H1: The influences of Competitive Strategy on Manufacturing Strategy

Based on the results of data processing by using the Standardized Coefficient of LISREL software, manufacturing strategy has coefficient value of 0:09 and T-count is <t-probability sig or 0.69 <1.96 against the competitive strategy. This phenomenon gives a quantitative sense, that the manufacturing strategy which consists of cost, flexibility, innovation, technology, knowledge, ability and quality does not significantly influence competitive strategy. This means that H1 is rejected.

Thus, it can be concluded that the manufacturing strategy did not provide the role of competitive strategy. That is, although the company has optimized the manufacturing strategy indicator is the cost, flexibility, innovation, quality, technology, knowledge and abilities but has no effect on competitive strategy.

This is in contrast to that expressed by Swink and Way (1995) that support the manufacturing strategy and competitive strategies to improve business performance. This relationship is also expressed by Vickery, et al. Although these results conflict with some previous research that states that the manufacturing strategy affect the competitive strategy, but the facts show that the manufacturing strategy field has no effect on competitive strategy.

- H2: The influences of the Competitive Strategy on Company's performance

Based on the results of data processing by using the Standardized Coefficient of Software LISREL, competitive strategy has a coefficient of 0:13 and T-count is <t-probability sig or 1:11 <1.96 on firm performance. This phenomenon gives a quantitative sense, that the competitive strategy that consists of pure differentiation, focus, market penetration, product development and market development does not affect the performance of the company. This means that H2: rejected.

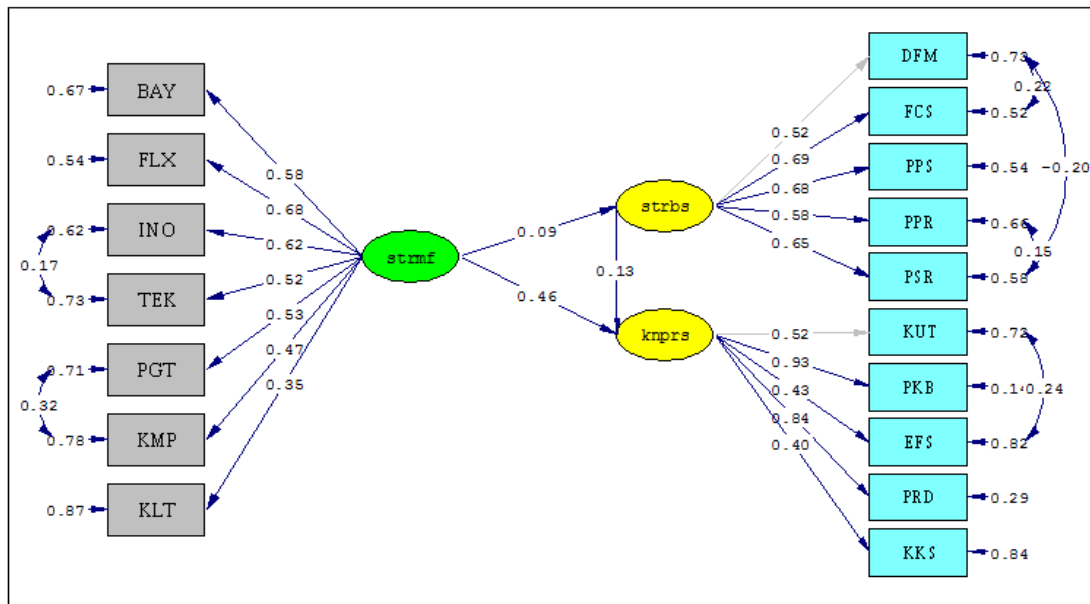
Thus, it can be concluded that the competitive strategy did not give a direct role on company performance. That is, although the company has made a purely competitive strategy in differentiation, focus, product development, market penetration and market development, still did not affect the performance of the company.

This is contrast with a research conducted by Pearce and Robinson (1997). They revealed that the company was pursuing a strategy of focused profit through their availability to serve customer segments was ignored. Kumar, et al. (1997) suggested that there are five groups of Porter's generic strategies, namely the pure cost advantage, differentiation focus strategy, a combination of cost advantage and differentiation, focused low-cost strategy and differentiation strategy purely shows have an influence on performance.

- H3: The influences of Manufacturing Strategies on Company's Performance

Coefficient of manufacturing strategy to track the performance of the company is at 0:46 and the t count > t-probability or 3:39 sig > 1.96 on firm performance. This means H3: accepted. The result meant that the cost of manufacturing strategy indicators, flexibility, innovation, quality, technology, knowledge and the ability to influenced the company's performance.

The results are consistent with the research conducted by The Boston University Manufacturing Roundtable (1990) who concluded that an effective performance managers need to implement effective manufacturing strategy. This is also consistent with research Kazen, et al. (2005) who found that the strategy of cost, quality and flexibility affect the financial performance. However, the speed of delivery of the strategy has no effect on financial performance. Vickery, et. al. (1997) found that innovation has a very strong influence on the performance.



**Fig. 2 Results of Final Model Development**

The results of this study together with previous research stating that the manufacturing strategy affect the performance of the company is Swamidass and Newell (1987), Ward, et al. (1995), Vickery, et al (1997), Badri, et al. (1997), Ward and Duray (2000).

In the framework of thinking and the initial hypothesis, that the significant effect of manufacturing strategy to competitive strategy, competitive strategy significant effect on the performance of the company and manufacturing strategies significantly influence the performance of the company.

By going through the process of research, all the variables are known indicators that describe the variable. Overall variable and its indicators that make up the model, was tested by using SEM to get fit model. After going through a series of stages of processing and analysis of data.

#### 4. Conclusion

The results of this study concluded as follows:

- Indicators of manufacturing strategy and its effect of the presentation describes the ability of the indicator variable manufacturing strategy from the largest to the smallest, namely flexibility (46%), innovation (38%), cost (33%), knowledge (29%), technology (27%), ability (22%) and quality (13%)
- The indicators and their influence on the competitive strategy of the presentation describes the ability of the indicator variable competitive strategy of the largest to the smallest, namely: focus (48%), market penetration (46%), market development (42%), product development (34%) and pure differentiation (27%).
- The indicators that affect the performance of the company and of the presentation indicator of the ability of the company to explain the variable performance of the largest to the smallest, namely development (86%), productivity (71%), profit (28%), efficiency (18%) and customer satisfaction (16%).
- The results of this study states that manufacturing strategy does not affect the competitive strategy, this is different to that expressed by Swink and Way (1995) that support the manufacturing strategy and competitive strategy to improve business performance. This relationship is also expressed by Vickery, et al. The results of this study apply only to the allegedly small batik industry has special characteristics, for small industries not formed a good system and cannot be identified with certainty.
- The results of this study stated that the competitive strategy does not affect the performance of the company,

it is contrary to research conducted by Pearce and Robinson (1997). They revealed that the company is pursuing a strategy of focused profit through their availability to serve customer segments that have ignored. The results of this study apply only to the allegedly small batik industry has special characteristics, for small industries not formed a good system and cannot be identified with certainty.

- f. The results of this study states that manufacturing strategies affect the performance of the company, the results of this study are consistent with research conducted by The Boston University Manufacturing Roundtable (1990) who concluded that an effective performance managers need to implement effective manufacturing strategy.

#### Implication

- a. This study shows that the manufacturing strategy is not affecting the competitive strategy. This is in contrast to that expressed by Swink and Way (1995) that support the manufacturing strategy and competitive strategy in improving business performance. This relationship is also expressed by Vickery, et al. Although the results of this study contradict some previous research which states that the manufacturing strategy affect the competitive strategy, but the fact the field indicates that the manufacturing strategy does not affect the competitive strategy. Not influential manufacturing strategy to competitive strategy at least show that empirically in research, manufacturing strategy indicators are not able to influence the competitive strategy.
- b. This study shows that the competitive strategy is has no effect on company performance. This is contrary to the research conducted by Pearce and Robinson (1997). They reveal that companies that do focus strategy to benefit through their availability to serve this customer segment during overlooked. Kumar, et al. (1997) suggested that there are five groups of Porter's generic strategies, namely pure cost advantage, differentiation focus strategy, a combination of cost advantage and differentiation, low cost strategy focused and pure differentiation strategy shows have an influence on performance. According to Pearce and Robinson (1997) argues that there are three important things for the success of a strategy. First, the strategy must be consistent with the conditions of the competitive environment. Strictly speaking strategies should take advantage of opportunities that exist or are expected aka tone and minimize the impact of major threats. Second, the strategy should be realistic in terms of the company's internal capabilities. In other words, exploiting market opportunities should be based not only on the internal strength of the company. Third, the strategy must be implemented carefully. Based on the opinion of the Pearch and Robinson, then the cause of competitive strategy does not affect the performance of the company as among those three things. Although the results of this study contradict some previous research which states that competitive strategy affect the performance of the company, but the fact in the field indicate that the competitive strategy does not affect company performance. No influential competitive strategy on company performance at least show that empirically in research indicators are unable to affect the competitive strategy on company performance.
- c. This study shows the effect of manufacturing strategy on firm performance. The results are consistent with research conducted by The Boston University Manufacturing Roundtable (1990) which concluded that an effective performance managers need to implement effective manufacturing strategy. It is also in line with research of Kazen, et al. (2005) who found that the strategy of cost, quality and flexibility effect on financial performance. However, the strategy delivery speed has no effect on financial performance. Vickery, et al. (1997) found that innovation has a very strong influence on the performance.
- d. These results together with previous research which states that the manufacturing strategy that affect the company's performance Swamidass and Newell (1987), Ward, et al. (1995), Vickery, et al (1997), Badri, et al. (1997), Ward and Duray (2000).

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## The Ethical Viewpoint in Network Neutrality

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### Abstract

Internet users comprise of millions of people nowadays and network neutrality is the modern basic human right of freedom in the Internet. Some Internet service providers however wants to get the authority to control the rate of the data dissemination from certain content providers, charging them extra for the same Internet speed, while the other content providers which do not pay up can only enjoy a much slower speed. Ethical and moral issues arise and we look into it based on several defined ethical rules that are Kantianism, Act Utilitarianism, Rule Utilitarianism and Social Contract. Based on the moral rules we can see from the ethical viewpoint the virtue behind the deed from the Internet service providers. As the fight towards network neutrality continues, we see into also how America and also Malaysia can achieve that basic human right in the Internet through their own legal commission respectively.

*Keywords:* Network Neutrality; Kantianism; Utilitarianism; Social Contract

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### 1. Introduction

According to Oxford Dictionary, network neutrality is the principle that Internet service providers (ISPs) should enable access to all content and applications regardless of the source, and without favoring or blocking particular products or websites (“Definition of,” n.d.). This principle should be honored as it reflects the basic human right of free speech. Network neutrality is to date not only an ongoing consumer issue, but it is also considered as the foremost free speech issues of our time (Franken, 2010). The freedom of expression for the Internet users will be lost if the methods or forums where free-will people actually make use of it are not themselves free. Being the closest thing ever invented to a true universe of freedom, the Internet is no doubt where most people in the world exercise their right of free speech. However, when movie or video streaming become ever demanding, which causes heavy traffic on the Internet, Internet service providers decide to get the content providers such as those with movie or video provisions to pay up as to enjoy the same service of data transferring. In the United States, the Federal Communications Commission (FCC) tried to stop ISP for the breach of network neutrality but the case is not completely solved. On Jan 14 2014, the U.S. Court of Appeals for the District Columbia Circuit ruled that the Federal Communications Commission does not have the authority to implement the rules prohibiting broadband providers (classified as “information services”) from selectively blocking or slowing web traffic (Gross, 2014). It is also stated that the preservation of network neutrality is not done in a legal framework. Having lost the court case, FCC has signaled that it may instead propose that ISPs be allowed to charge content providers for a faster conduit to consumers (Stanley, n.d.). On the other hand, President Obama made his stance and backed net neutrality unequivocally and expects the FCC to enact and enforce new rules to the Internet, preventing multi tiers of Internet (Nagesh, 2014). While FCC Chairman Tom Wheeler said that he is in sync with President Obama, no action has yet taken and the set of rules that are going to be enacted by the FCC may and may not respect the true spirit of network neutrality.

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## 2. Ethical and Moral Issues

Through the advancement of technology, it is known that the ISPs have developed a method named “deep packet inspection” (DPI) which grants the ISPs the potential for control over the Internet (Stanley, 2010). In short, with this technology, the ISPs can access also the contents of the data sent from the content providers to the Internet users and make real-time routing decisions based on what information they gathered from the content. This situation can be illustrated by following example. Imagine that the mail delivery is based on the content of a letter rather than the address on the envelope (Federal Communications Commission, 2008). This is not only a violation to the privacy of the data user, but also letting the ISPs control, manipulate and dictate the contents available in the Internet, all under the knowledge of the other parties involved. With this, they can alter the Internet speed and bandwidth and set different price based on the services they offer and the contents involved. The faster conduit or the “fast lane” is however not a boost to a normal speed for the paying content providers, instead it is just the regular one with the other non-paying content providers being dumped into the “slow lanes”. For example a commercial content provider like Netflix would pay up and get a normal data transfer speed, while the other non-profitable content provider like Wikipedia would not able to pay up and get a much slower data transfer speed.

The ISPs have as well the power over choice of applications used by the Internet users. They have the ability to limit users from using particular applications such as Virtual Private Network (VPN) and BitTorrent (Wu, 2003). It is entirely possible that also they can control the access to the content based on commercial and political reasons. Besides, ISPs can discriminate users of a certain demographic by creating blacklists or require users to pay in order to access certain contents. Aside from having the power or ability to interfere the Internet traffic, the ISPs also possess the will to manipulate the dissemination of Internet data. The incentives of the ISPs are for example interfering contents that do not share the perceived commercial or political stands, blocking or tampering contents from the competitors and obliging new comer from the content provider side to pay up in order to avoid slow Internet speed (Stanley, 2010).

From the Internet service providers’ point of view, content providers like Netflix and Youtube use more data transfer services or capacity and eventually cause heavy traffic in the Internet therefore they should be charged more for the same data transfer speed. This would be true based on the prediction that one day the Internet would have insufficient capacity to handle the heavy bandwidth uses of modern generation. However according to Bell Labs, there is an exponential growth parallel with the “Moore’s Law”, about double every 18 months, for the capacity of the Internet fiber (Tehrani, 2000). Therefore we can expect sufficient Internet capacity even though there will always be an escalating demand for it, as the Internet’s carrying capacity will always expand even more to keep up (Duffy, 2007). In fact, the ISPs are clear that charging extra fees for preferential premium access will be much more profitable than upgrading the network capacity. We realize nevertheless that any public policies that permit the ISPs to discriminate will discourage the creation of more network capacity, as the ISPs will gain as much profit by simply charging more for the same speed and solve the capacity problem by slowing down sites that do not pay up (Stanley, 2010).

It is not foreign for one to be heard of rumors of Internet abuses by ISPs. In fact, some abuses do really happened. On August 2007, the performance by the rock band Pearl Jam in Chicago is screened and part of his words which contains political protest were censored or muted by the self-advertised presenting sponsor of the concert, AT&T (Reuters, 2007). The blame was then pushed towards a hired external Website contractor, when the words from the lead singer Eddie Vedder was censored for profanity as an effort to protect the youth, although Vedder’s words were free from profanity (Healey, 2007). Recently in 2014, Verizon created a cookie-like tracker which will stay in Verizon customers’ mobile device indefinitely when they access unencrypted website. The tracker which is included in HTTP header named X-UIDH aids Verizon in advertising and will give away user’s web browsing habits without user’s consent to the benefits of Verizon advertisement programs in the cost of user’s privacy (Hoffman-Andrews, 2014). Our concern however centralized on the issue that ISPs intend to start charging content providers to be in the fast lane, violating the integrity of network neutrality. All

of this could have been illegal if FCC comes out with a strict network neutrality rule but we can use ethical point of view to justify if the action of the ISPs is right or wrong.

### 3. Ethical Evaluation

We look at this case firstly with the Kantianism viewpoint. As stated in the Categorical Imperative (2nd Formulation): Act so that you always treat both yourself and other people as ends in themselves, and never only as a means to an end (Quinn, 2013). If the ISPs start to charge content providers for the same speed, the content providers which pay up do not actually gain a faster speed, which mean they will face a monetary loss. On the other hand for those content providers which do not or incapable to pay up, they will have their content delivered in a much slower speed, having also to pay the current price. When the ISPs have the authority to control the speed and even the accessibility of the content for the Internet users, it causes the Internet users to lose the basic human right of freedom to choose the content they would like to access. The content from the content providers which pay up might even be more expensive because content providers would consider increasing the price as to balance up the loss of profit as a result of paying the ISPs to have their contents to be transferred in maximum speed. In short, the ISPs treat content providers and also network users as means to earn more profit. This, from Kant's point of view, is not ethical.

We can also evaluate the situation too based on the Act Utilitarianism, which states that an action is right (or wrong) to the extent that it increases (or decreases) the total happiness of the affected parties (Quinn, 2013). It is reasonable that we calculate happiness based on the number of people involved in each party. The ISPs will gain revenue and it has a unit of happiness based on the amount of people involved. The content providers, including both which pay up and not, will loss in revenue or loss in content delivery speed, can be considered as two unit of unhappiness. As for the Internet users, which consist of millions of people, will be limited in accessibility to sites that do not pay up. Hence they will lose the freedom in choosing contents. This can be seen as 10 units of unhappiness. The total number of unhappiness which is 12 units is greatly overshadowing the happiness of 1 unit gained if the ISPs charge the content providers for different speeds and hence it is wrong to do so.

As for the Rule Utilitarianism, we look into the probable consequences if a proposed moral rule is deemed legitimate (Quinn, 2013). The proposed moral rule – If I can earn money by charging content providers so that they enjoy the privilege of maximum speed, I should do so. The ISPs industry will escalate as it will surely return in huge revenue. Due to the demand of faster Internet speed too, the ISPs will invest more on improving the service and we can expect much faster internet speed being available as the competition between ISPs increases. While it may suggest that network neutrality will obstruct innovation, it is pointed out by economists that network neutrality will instead promote and safeguard even more innovation than it could have potentially hinders (Blumenthal & Clark, 2001). In this context too, the ISPs can manipulate data flow by slowing down or blocking traffic they dislike and speeding up traffic they like or whose which pay up. Newcomers in the content provider industry or sites that depend on advertisement revenue alone will be very hard to cope with the extra charges and eventually only the big companies survive under the new set of rule. Aside from that, content providers which do not pay up will become limited to be accessed, effectively censoring the content. Besides, the ISPs have the power to filter content and block competitors' applications. All these will make Internet users loss their basic human right of freedom in the Internet. For example if a certain ISP has a favorable political viewpoint while having this power to control over the data dissemination in the Internet, Internet user will be biased towards the same political ideology because they will be controlled and manipulated by the ISP. On a bigger picture, when the ISPs in America have that power, ISPs around the world will follow the footstep and effectively censoring the contents from country they dislike. As the moral rule leads to more bad consequences than good ones, it is not ethical for the moral rule to be established.

The last ethical rule we consider is the Social Contract. It is stated that morality consists in the set of rules, governing how people are to treat one another, that rational people will agree to accept, for their mutual benefit, on the condition that others follow those rules as well (Quinn, 2013). The parties involved in this case study are the ISPs, the content providers and the Internet users. Mutual benefit can be seen at first between the ISPs and

some users of Internet. A particular group of users who watch or stream videos or movie daily will benefit from the maximum data transfer rate they get from the ISPs as the irrelevant unwanted traffics caused by the uninterested sites are limited into slower speed. Worth to mention is this only applies to a small and certain demographic. Majority of the Internet users browse through millions of different websites and relied on thousands of dissimilar content providers for their distinctive Internet experience. The relationship between ISPs and the content providers is a clear one. One earns extra monetary benefit from the other for the same service. However there might be a mutual loss between the content provider and the Internet users. The content provider might charge higher fees for the same content, after having to pay ISPs for the same Internet speed. In a nutshell, as mutual benefit cannot be seen from any perspective or parties due to the fact that only ISPs enjoy the benefit when they start charging the content providers for the same service, it is not ethical based on the Social Contract ethics rule.

#### 4. Summary

Based on the ethical evaluation, it is not ethical for ISPs to charge content providers conditionally based on all four ethical principles. In Kantianism, the ISPs are unethical to use both the content providers and Internet users as a means to earn more profit. For Act Utilitarianism, the ISPs are wrong as the total unhappiness resulted are greater than the total happiness produced. As for Rule Utilitarianism, the ISPs are unethical because the cause more dire and bad consequences rather than good ones. Lastly based on Social Contract, no mutual benefit can be seen between any relationship among ISPs, content providers and Internet users, hence it can be justified that ISPs are not ethical.

A better approach must be done to prevent network neutrality from being destroyed. FCC can have a chance to reinforce network neutrality by reclassifying ISPs as a "telecommunications service" which would therefore subject online communications to common carrier protections automatically, as written in Telecommunications Act of 1996 (Stanley, n.d.)(Rottman, 2014). Common carriage prohibits the owner of a network, which holds itself out to all-comers, from discriminating against information by halting, slowing, or otherwise tampering with the transfer of data (Stanley, n.d.). In Malaysia, we do not have any specific regulations or guidelines on network neutrality (Majid & Lee, 2014). ISPs in Malaysia are bound to comply rules set in The Communications and Multimedia Act 1998 (CMA), which is regulated by the Malaysian Communications and Multimedia Commission (MCMC), and also the Personal Data Protection Act 2010 (PDPA) (Majid & Lee, 2014). Network neutrality in Malaysia can be established if the Ministry of Communications and Multimedia, which according to Part II of the CMA has ministerial powers to issue directions, determinations and regulations (Majid & Lee, 2014), set new rules and regulations for the ISPs to oblige to, enforcing the true spirit of freedom in Internet as the basic of human right.

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# Cyberterrorism in Malaysia from Ethical Studies Point of Views

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## Abstract

The rising global trend in the use of Information and Communication Technology (ICT) has seen many of our daily activities are now carried out in the cyberspace. Countless photos, emails, messages, health data, and many more are being exchanged daily. Very huge amount of money is being transacted both locally and internationally without the hassle of physical banking every day, thus our dependency toward ICT is inevitable, with this, unsurprisingly comes vulnerability in the form of cyber threats such as terrorism, hacking, phishing, spamming, stalking, defacement, harassment, logic bomb, malware release and many more. In this contribution, selected cyberterrorism cases that was reported in Malaysia along with its moral evaluations using 4 ethical theories were discussed. Cyberterrorism cases in Malaysia include hacking and dissemination of propaganda. In cases that involved dissemination of propaganda, it was revealed by the authority involved that unsuspecting victim was the largest group among ICT users to be recruited by terrorist organizations, thus suggesting lack of early education to be a contributing factor towards this problem. Based on the analyses using the 4 ethical theories, it was concluded that terrorist organizations activities are absolutely not acceptable by all 4 theories discussed. It is hoped that the results from this work can be used by the authorities as teaching materials for early education in schools to fight cyberterrorism.

*Keywords:* Cyberterrorism, ICT, ethical theory, ethical evaluation

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## 1. Introduction

The rising global trend in the use of Information and Communication Technology (ICT) has seen many of our daily activities are now carried out in the cyberspace. Sophisticated technology are being developed to create virtual networks that can be reached globally with easy access to worldwide users. As such, more and more governments and companies and businesses are subscribing to ICT to increase their delivery efficiencies. This is self-evident in many important aspects of our life, as it has many far reaching influences to the way we do our businesses, economics, politics, health and communities. Countless photos, emails, messages, health data, and many more are being exchanged daily. Very huge amount of money is being transacted both locally and internationally without the hassle of physical banking every day. Thus, our dependency toward ICT is inevitable, unsurprisingly with it comes vulnerability in the form of cyber-attacks. Cyber-attacks refer to exploitation of ICT to cause damage to vulnerable users ranging from individuals to governments with purpose of gain or sometimes with no apparent reasons. Cyber-attacks comes in many forms such as terrorism, hacking, phishing, spamming, stalking, defacement, harassment, logic bomb, malware release and many more, the one that will be discussed in this contribution is cyberterrorism. Cyberspace, though a virtual world, has become so important that it is perceived by many as real space just like land, sea and air space. Just like a real space, it involves society and it also concerns rules of conducts. Thus, it is imperative to evaluate the morality issues involving the users and their act in exploiting the ICT and performing cyberterrorism. In this contribution, several issues involving cyberterrorism in Malaysia will be discussed and evaluated by using ethical theories.

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## 1. 1. Background

### 1. 1. 1. Cyber-terrorism

#### Definition

At present there is no single definition of cyberterrorism, therefore several definitions of cyberterrorism can be found in countries acts and also from the work of some leading researchers. According to Australian Security Legislation Amendment (Terrorism) Act 2002 section (2)(e), terrorism is defined as “an action or threat of action that can seriously interferes with, seriously disrupts, or destroy, an electronic system including, but not limited to, an information system, a telecommunications system, a financial system, a system used for the delivery of essential government services, a system used for, or by, an essential public utility, or a system used for, or by, a transport system” [1].

As for Malaysia, although there is no definite law addressing cyberterrorism, a related law known as the Penal Code do caters for this issue. The provision under Chapter VIA, section 130B(2)(h), describes terrorism as an act or threat of action within or beyond Malaysia, among others, “designed or intended to disrupt or seriously interfere with, any computer systems or the provision of any services directly related to communications infrastructure, banking or financial services, utilities, transportation or other essential infrastructure” [2].

The word cyberterrorism was first created by Barry Collin, he defined “cyberterrorism as the convergence of cybernetics and terrorism” [3]. Dorothy Denning, a leading expert in information technology defined cyberterrorism as “unlawful attacks and threats of attack against computers, networks, and the information stored therein when done to intimidate or coerce a government or its people in furtherance of political or social objectives” [4]. While Rod Stark described cyberterrorism as “any attack against an information function, regardless of the means”.

### 1. 1. 2. Utilization of ICT for Cyberterrorism Purposes

The United Nation Office on Drugs and Crime (UNODC) in its report [5] classified the means of by which the Internet is utilized to promote and support acts of terrorism. They were identified as propaganda, financing, training, planning, execution and cyber-attacks.

### 1. 1. 3. Propaganda

Dissemination of propaganda refers to virtual communications promoting ideology, providing instruction, explanations, and justifications of terrorist activities that include virtual messages, presentations, magazines, treatises, audio/video materials developed by terrorists or their sympathizer. The nature of these communications are subjected to subjective assessment that leads to different viewpoints, thus it is perceived as one of fundamental human rights under the right to freedom of expression.

Dissemination of propaganda can be further classified into 3 categories, they are recruitment, radicalization and incitement to terrorism. Apart from using ICT as a means to circulate extremist ideology, they are also use as a means to nurture relationship to the most responsive of sympathizers. This will future lead to recruitment. Propaganda can also lead to distribution of materials with unlawful glorification and provocative towards acts of terrorism content which can be considered as incitement. Normally, after recruitment phase, come another phase that is known as radicalization. During this phase, the attracted sympathizers are indoctrinate into individuals that are willing to carry out violence activities and uphold the extremist ideology that was indoctrinated to them.

#### 1. 1. 4. *Financing*

Terrorists may also use ICT to raise and collect funds to finance their activities. The UNODC report [5] identified several means of by which terrorist collect funds through the use of ICT, they are through direct solicitation; e-commerce; online payment tools and through charitable organizations. Direct solicitation refers to solicitation through websites, social media groups, mailing lists and also specific e-mails. E-commerce provides a convenience in funds transfer across physical borders and with no time barrier, often such facilities are exploited to solicit and donate by the terrorists and their sympathizers to fund their activities. The terrorists may also exploit online payment facilities by means of fraudulent such as identity theft, credit card theft, wire fraud, stock fraud, intellectual property crimes and auction fraud for monetary gain. Some terrorist establish organizations to disguise their on-line solicitation activities. The disguised organizations include charities and humanitarians support groups.

#### 1. 1. 5. *Training, Planning and Execution*

In recent years, many virtual media have been developed and made available for free access to internet users worldwide. In general, these media have greatly benefited its users in many ways but so have it attracted illicit users to exploit it for illegal purposes such as terrorism. It was reported that there was a growing trend in the use of virtual media by terrorist organizations as training platform to spread online manuals and other training materials on construction of explosives, firearms manuals, and methods on planning and execution terrorist attacks. Virtual media have also been used for secret communication and data mining to obtain specific information regarding a target. It was also used extensively in coordination of participants in executing an attack.

#### 1. 1. 6. *Cyber-attack*

Cyber-attack generally refers to exploitation of ICT as a means to launch attack. Typical targets of cyber-attacks consist of computer network systems, IT infrastructures, by hacking, spreading of computer viruses, malware, logic bomb or other means of illicit access. Cyber-attacks are viewed as part of cyberterrorisms regardless the extent of involvement of real world terrorist organizations, it can also be carried out by any illicit users of ICT.

#### 1. 1. 7. *Cyberterrorism in Malaysia*

Malaysia, just like many other countries is utilizing ICT in order to improve its delivery efficiency. More and more businesses, from banking to small individual enterprises are adopting ICT to serve their customers in term of sales and marketing. The government also engaged in ICT among others, to facilitate tax collection, dissemination of information, get feedbacks and as platform to communicate with its citizens. Majority of Malaysians are now already adapted to ICT, to the very least, communication media such as WhatsApp and Facebook are common throughout all walk of life. With such an environment, it is not surprising that illicit ICT activities including cyberterrorism may thrive in Malaysia.

For all the reported occurrences of cyberterrorism in Malaysia, there are hundreds other that will not make it to the newspapers. In this contribution, a few cases of cyberterrorism that had made the headline were selected as case studies. On 15<sup>th</sup> June 2011, a group of hackers known as Anonymous had launched a cyber-attacks on 50 websites that belong to the Government of Malaysia [6]. The attack was carried out in response to the Government effort to block major file sharing website (Pirate Bay) and an international whistle blower website (WikiLeaks).

A more recent cyberterrorism activity in Malaysia was reported on 5<sup>th</sup> October 2014. On what can be classified as dissemination of propaganda activities, a Malaysian female medical doctor was reportedly actively involved in Islamic State (IS) terrorist organization. The female doctor was found to be promoting ideology, explanations, and justifications of terrorist activities of the organization. Some of the indoctrination involves



justifications for marrying the members of the illicit organization and also showing photos of the accommodation that will be provided to the willing sympathizers if they were to join [7].

One of the more disturbing scenario was the increasing trend of dissemination of many jihadist videos through YouTube. Terrorist organizations were using YouTube to openly share videos glorifying their members and their ideology. As reported on 25<sup>th</sup> June 2014, a video titled “Syria-Asian Mercenaries Confront Terrorists in Row” was uploaded on YouTube by a suspected member of a terrorist organization. In the video, a few men in military attire were seen conversing in Bahasa Malaysia. A voice behind the camera was heard saying “We are going to die as syahid” [8]. Such act can be considered as terrorist propaganda.

## 2. Methodology

### 2.1. Ethical theories

The use of ICT for cyberterrorism is already criminalized by many governments around the world, currently there are several acts in place to mitigate cyberterrorism including the Malaysian Chapter VIA, section 130B (2)(h). One pressing issue that can be found in [8] was how easy recruitment is done in Malaysia, as sympathizers were so easily attracted to terrorist propaganda. This can be attributed to the lack of education to Malaysians regarding the morality to engage in such activities. In furtherance to fight cyberterrorism, it is believed that early education can be utilized. Therefore, it is very important that cyberterrorism be analysed using ethical theories and the results can be used as materials in early education to Malaysians so that they can be more mature in deciding before engaging in such illicit activities.

#### 2.1.1. Ethical Evaluation

In evaluating the morality issues of cyberterrorism, 4 ethical theories were proposed. They are as the following:

##### **Kantianism theory**

This theory focuses on the will behind an action. It enabled the explanation of why an action is right or wrong. In determining the appropriateness a moral rule, Kant proposed Categorical Imperatives that can be divided into two sections. The first Categorical Imperative is known as the First formulation where, it says that one should act only on principles that he can will to be a universal law that applies to everyone. The second Categorical Imperative or also known as the second formulation says that one must act so that he always treat both himself and other people as ends in themselves, and never only as a means to an end.

##### **Act utilitarianism theory**

Act utilitarianism theory focuses on the total happiness of the affected parties. According to this theory, an action is right (or wrong) to the extent that it increases (or decreases) the total happiness of the affected parties. The tendency of an object to produce happiness or prevent unhappiness for affected parties is known as utility.

##### **Rule utilitarianism theory**

As act utilitarianism focuses on the net effect of an action to produce the greatest happiness to the affected parties, rule utilitarianism put emphasis on the net effect of a rule that if followed by everyone, will lead to the greatest increase in total happiness.

##### **Social contract theory**

Social contract theory argues that without rules and a means of enforcing them, people would not bother to create anything with value, because there is no guarantee that they can keep their valuable creation. Without rules and enforcements people would be more inclined in taking what they needed and defending themselves.

#### 2.1.2. Ethical Theories Analyses

##### 2.1.2.1 Scenario 1

On 15<sup>th</sup> June 2011, a group of hackers known as Anonymous had launched a cyber-attacks on 50 websites that belong to the Government of Malaysia [6]. The attack was carried out in response to the Government effort to block major file sharing website (Pirate Bay) and an international whistle blower website (WikiLeaks). Anonymous argued that “Malaysia is one of the world’s strictest governments, even blocking out movies, and television shows”, “these acts of censorship are inexcusable”, “Malaysia taking away a basic human right. The internet is here for freedom, without fear of government interference”.

### Analysis

#### Kantianism theory

In order to analyze this scenario using Kantianism theory (first formulation), we established three parameters that include action, circumstances and motive. In this case the action was identified as hacking, the circumstances was “when censorship is exercised” and the motive of the action was to promote basic human right. A question was constructed as the following:

When file sharing sites are blocked to prevent illegal downloads, I can perform hacking in the name of basic human right. Is this permissible?

The question above was universalized to test for contradiction as the following:

When file sharing sites are blocked to prevent illegal downloads, everyone can perform hacking in the name of basic human right.

#### Evaluation

One cannot coherently will that everyone follow such a law. The motive of promoting basic human right urges both the free accessibility to materials from the internet but at the same time protects the proprietor from illegal download. These are contradictory, therefore such action was impermissible.

**Kantianism theory (second formulation)** was perform as the following:

By hacking the governments websites, the hackers are putting pressure on the government to lift the ban on illegal downloads. In other words, forcing the government to make the copyrighted materials to be free of charge in the country by compromising its networking systems.

#### Evaluation

In this case, the hackers used the government as a means to an end to get copyrighted materials illegally. Therefore, the hacker action was impermissible.

#### Act utilitarianism theory

In order to analyze this scenario using act utilitarianism theory a table was constructed and the affected parties were identified and their feelings towards the action of hacking and free downloading were tabulated as the following:

Table 1. Analysis of the affected parties feeling.

Happy	Amount of People	Not Happy	Amount of People
Hackers	Smallest	Government	Small
General Public	Largest	Copyright holders	Small
Total	Greatest Happiness	Total	Smallest Happiness

### Evaluation

According to act utilitarianism theory, the act of hacking provides the greatest total happiness to hackers and general public, therefore; hacking in the name of basic human right was permitted.

### Rule utilitarianism theory

In order to analyze this scenario using rule utilitarianism theory, a question was constructed as the following:

#### Question 1

The act of hacking by Anonymous; what would happen if everyone performs system hacking whenever they are pleased?

#### Answer 1

Cyberspace would be a dangerous place to be, no one would want to be online anymore. Thus, quality of life will be degraded, thus causing great unhappiness to all ICT users.

#### Question2

The act of illegal downloading; what would happen if everyone performs illegal download?

#### Answer 2

Although it is claimed to be a basic human right by Anonymous, it is piracy. It is same as stealing. If everyone steals, the world would be chaotic, this will cause a great unhappiness to all human being.

### Evaluation

Based on the answers of both questions, it can be concluded that hacking and illegal downloading cannot bring greatest increase in total happiness, therefore cyberterrorism was impermissible.

### Social contract theory

For social contract theory, 3 rational agents were identified as the hacker (Anonymous), The Government of Malaysia and the copyright holders. The rights of all 3 rational agents were identified as the following:

- Anonymous has violated the absolute right of The Government to enforce its policy.
- Anonymous has violated the positive right of The Government to protect copyright holders.
- Anonymous has violated the absolute right of the copyright holders to get their pay.

### Evaluation

Therefore the action by Anonymous was impermissible.

#### 2.1.2.2 Scenario 2

On the 5<sup>th</sup> of October 2014, The Borneo Post online reported, a women medical doctor was among 22 Malaysians involved in IS militant organization. The doctor who was reportedly married to a member of the militant group, was found disseminating the organization's propaganda via a Facebook account under the name "Diary of a Muhajirah", along with Tumblr and Twitter accounts. Among the propaganda materials disseminated was ideology, explanations, and justifications of terrorist activities of the organization. Some of the indoctrination involves justifications for marrying the members of the illicit organization. They were promised the reward of a jihadist for joining and producing future jihadists. They were also shown photos of the accommodation that will be provided to them and also ways to join the organization [7].

## Analysis

### Kantianism Theory

From Kantian 2<sup>nd</sup> formulation of the Categorical Imperative, the female doctor had treated the social network sites (Facebook, Tumblr and Tweeter) as means to an end by using it to provide wrong ideology about joining the militant organization.

### Evaluation

Since, Kant holds that every action is motivated from a rule and appropriate rule depends upon how we characterize the action, thus the action of the female doctor to promote the terrorist's ideology was wrong.

### Act Utilitarianism Theory

In order to analyze this scenario using act utilitarianism theory, an approximation was made as the following: For every woman the doctor managed to recruit, the organization would gain RM 10 000. For every new area conquered, the organization would gain RM 100 000. In a duration of 6 months, the organization would have managed to obtain 30 new volunteers and 5 new areas. That would bring them total earning of RM 800 000. All these at the expense of the family members of the women involved and also the villagers whose areas affected. In this case, the terrorist organization was the party experiencing a great happiness, on the other hand, the amount of suffering experienced by the family members of the women involved and also the villagers whose areas affected although difficult to be quantified, far outweighs the total happiness.

### Evaluation

According to act utilitarianism theory, the doctor action did not lead to the greatest total happiness to the affected parties. Therefore her action was impermissible.

### Rule Utilitarianism Theory

The wrong ideology spread through social network caused some members of the public to subscribe and later join the militant. This act was harmful as many members of the public leaved their families, job and society to join the militant group.

### Evaluation

Therefore, according to this theory the action of the female doctor is morally wrong.

### Social Contract Theory

For social contract theory, 3 rational agents were identified as the doctor, The Government of Malaysia (as the authority) and family members of the women involved and also the villagers whose areas was affected by terrorists activities. The rights of all 3 rational agents were identified as the following:

- The doctor has violated the absolute right of the Malaysian Government to enforce its policy on fighting terrorism.
- The doctor has violated the positive right of the Government to protect unsuspecting ICT users from inaccurate materials and propaganda that is misleading.
- The doctor has violated the absolute right of the family members of the women involved to be with their loved ones.
- The doctor has violated the absolute right of the villagers whose areas was affected by the terrorist's activities to live a peaceful life.

### Evaluation

Therefore according to social contract theory, the action of the female doctor was impermissible.

### 2.1.2.3 Scenario 3

As reported on 25<sup>th</sup> June 2014, a video titled “Syria-Asian Mercenaries Confront Terrorists in Row” was uploaded on YouTube by a suspected member of a terrorist organization. In the video, a few men in military attire were seen conversing in Bahasa Malaysia. A voice behind the camera was heard saying “We are going to die as syahid” [8]. The act of conversing in Bahasa Malaysia was viewed by the authority as a means to attract more Malaysian to join their organization. The videos attracted more than fourteen thousand views worldwide.

#### Analysis

##### Kantianism Theory

Based on Kantianism ethical theory, the suspected member of a terrorist organization used YouTube as a means to an end to promote their ideology and illegal activities using social media.

##### Evaluation

Therefore, according to Kantianism theory, their action was morally wrong.

##### Act Utilitarianism Theory

By uploading the video, based on the number of views the video collected, the terrorists would probably able to get more people to join them. This was a benefit to them. On the other hand as the number of people they managed to recruit increases, many more family members would suffer to a point where the amount of people suffering for their course of action outnumber the recruits themselves.

##### Evaluation

Therefore, based on act utilitarianism theory, the terrorist action was wrong.

##### Rules Utilitarianism Theory

In order to analyze this scenario using rule utilitarianism theory, a question was constructed as the following:

##### Question 1

The act of uploading jihadist video by the suspected member of a terrorist organization; what would happen if everyone upload videos of similar nature?

##### Answer 1

Many more people would be dragged to join many other terrorist organizations each with their own different beliefs and course. The world would be a chaotic place when terrorist organizations fight each other. This would cause great unhappiness to all human beings.

##### Evaluation

Based on the answer of question 1, it can be concluded that the act of uploading jihadist video cannot bring greatest increase in total happiness, therefore cyberterrorism was impermissible.

##### Social Contract Theory

For social contract theory, 3 rational agents were identified as the uploader, the authorities (of affected countries) and the viewers. The rights of all 3 rational agents were identified as the following:

- The uploader has violated the absolute right of the authorities to prevent dissemination of such incitement materials.
- The uploader has violated the positive right of the authorities to protect unsuspecting viewers such as children and teenagers.
- The uploader has violated the absolute right of YouTube not to publish such incitement materials.

##### Evaluation

Therefore according to social contract theory, the action of the suspected member of a terrorist organization who uploaded the jihadist video was impermissible.

### 3. Summary of Analyses

Based from the outcomes of the analyses made on each scenario, it was found that only one act of cyberterrorism (hacking for free download) was permissible according to act utilitarianism theory. This act though, was impermissible by the other theories used to test the same scenario (scenario 1). For the other two scenarios, all the acts were impermissible or unacceptable by all the theories used.

### 4. Conclusions

From the summary above, cyberterrorism can be concluded as unacceptable or morally wrong. From Kant's point of view, cyberterrorism could not be a universally accepted law without contradictions to existing moral values. Furthermore, in all scenarios, if it was to be made a rule, it failed to provide the greatest total happiness to all affected parties. In social contract theory context, it violated the rights of all affected parties, therefore it was an unacceptable act. A small exception was seen in scenario 1, it was deemed acceptable as it was said to provide the greatest total happiness. In this case, hacking in order to get free download was considered permissible because it lead to greatest total happiness. While unacceptable by the other 3 theories, it still passed one. In viewing this particular result, one needs to bear in mind that out of all the cyberterrorism acts discussed thus far in this contribution, this is the only act that is not directly related to terrorist organizations activities. Therefore, it can be further concluded that terrorist organizations activities are absolutely not acceptable by all 4 theories discussed.

### 5. Recommendations

Stricter procedures for social media account sign up. Physical sign up and media access control addresses (MAC address) are enforced so that a user can create only one social media account and total traceability for authorities.

Rigorous screening for ICT content for its sensitivity and legality before its publication in social media.

Social media hosts must launch anti-terrorism campaign to warn people of terrorist's propaganda.

A concerted effort by press, governments and social media hosts to denounce terrorist organizations and their activities through mass and electronic media circulations and also in schools and universities curriculums. This could prevent the terrorist organization from recruiting unsuspecting internet users.

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## The Psychological Influence towards the Diffusion of a Web-based Health Information Service (WBHIS)

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### Abstract

The use of the Internet to retrieve health information is increasingly common and becoming the centre from which an individual acquires knowledge to make informed decisions regarding his health. It becomes the gateway for an individual to gain access to his personalized health assessment from which he will be able to monitor his health status. MyHEALTH Portal (MHP) is a web-based health information service (WBHIS) set up by the Ministry of Health Malaysia as one of the MSC Telehealth Flagship Application in 2005. It is a national initiative by the Malaysian Government to bring great advances to the country through the innovative use of Information and Communication Technology (ICT) aims to empower and encourage individuals to be responsible for their health by providing health information and education online. This proposed study is intended to investigate the MHP's usage and other related factors specifically the psychological factors that influence its usability using a quantitative research approach. This research is practically imperative as it can help to understand some factors that might hinder users from using MHP and thus inhibit them from making an informed decision regarding their health condition. It is expected that the findings would significantly help relevant parties to analyze the changes that are necessary in order to promote MHP to the mass. It is also anticipated to alleviate the burden of national health care delivery in the event that the objectives of the portal are achieved. A conceptual framework is also developed indicating the key determinants of individual intention to use MHP through the central tenets of Rogers's Diffusion of Innovations (DoIs) to identify the key critical success factors that influence individuals' attitude based on the Theory of Reasoned Action (TRA) moderated by a psychological factors using the Health Belief Model (HBM).

*Keywords:* Psychological; Diffusion; Web-based health information service (WBHIS)

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## 1. Introduction

The concept of eHealth has gained momentum within health care in recent years, but surprisingly little has addressed the issue of health promotion within eHealth. eHealth was described as tools or solutions for both health professionals and personalized health systems for health consumers including health information networks, telemedicine services, personal wearable and portable communicable system, electronic health records and health portals (Commission of the European Communities, 2004). Eng (2002) provides a more specific definition of eHealth as the use of emerging technologies and, in particular, the internet to enhance health and health care. eHealth is playing an increasingly large role in the lives of health consumers with the goals of the public health approach, which targets large population segments or an entire population. The approach of ehealth through the use of the internet to retrieve health information has becoming the center from which an individual acquires knowledge to make informed decisions regarding his health. Millions of consumers get health information from the internet and it becomes the gateway for an individual to gain access to his personalized health assessment from which he will be able to monitor his health status. Lee (2013) believed that the internet is more effective in the delivery of health information and can be easily accessed at large. Given the great number of published definitions of eHealth, surprisingly little reference is made to the use of these technologies in the health promotion field. It is defined as “the science and art of helping people change their lifestyle toward a state of optimal health (Am J, 1989). However, the absence of the term does not automatically imply that the technology has not been utilized in health promotion.

Meanwhile, health education is described as any combination of learning experiences designed to help individuals and communities to improve their health, by increasing their knowledge or influencing their attitudes (WHO, 2014). An effective ways of how to promote health education to the mass is with the support of technology using online health information service which is similarly the web-based health information service (WBHIS). WBHIS is an example of online health education under the pillars of ehealth. Marcus et al (2000) highlighted delivering effective and cost-effective interactive health promotion interventions would be greatly facilitated by increased reliance on eHealth applications and such in the case is the WBHIS.

It is made known the health sector is the primary supplier of health information. Some of the information is reliable and up to date; some is not. A way of how to identify whether the sources are good or bad is by considering the source whether it is a .gov, .com, .edu, or .org. Indisputably, governmental health portals and websites provide quality, reliable and trusted health information for its citizens to help them to make healthy and informed choices anywhere at any time. Likewise throughout these, an individual can quickly search for a topic, or look into specific areas accountably in more detail such as: managing conditions and diseases, coping with life stages and general advice on health and wellbeing.

### 1.1. MyHEALTH Portal (MHP)

MHP is a web-based health information service set up by the Ministry of Health Malaysia as one of the MSC Telehealth Flagship Application in 2005. This is a national initiative by the Malaysian Government to bring great advances to the country through the innovative use of Information and Communication Technology (ICT) which can also accelerate Malaysia’s growth towards becoming a fully developed nation by the year 2020. MSC Telehealth Flagship Application is envisaged to transform the Malaysian healthcare system to be more integrated, distributed and virtual with the aim of providing equitable, accessible and high quality healthcare services. This will help to realize the healthcare vision of the nation by emphasizing on life-long wellness wherein individuals, families and communities are empowered to play a major role in managing their health. The objectives of this portal are: to empower and encourage individuals to be responsible for their health by providing health information and education online as well as to provide reliable and quality health related information to specific target groups in a user friendly and easily accessible manner.

Through MHP the public will be able to access current health information and health advice easily via the internet. This portal carries certain health-related topics such as Health for Kids; Teenagers; Prime Years;



GoldenYears; Nutrition; Medication and You; Oral Health Alert; Frequently Asked Questions (FAQ) and also maintains a Health Forum. The number of hits for the portal at the end of August 2009 was 697,538. An average hits per day was 542 and the average weekly hits was 3,787. There are now 6,111 registered users and 7,210 people having interacted with health experts (10<sup>th</sup> Malaysia Health Plan, 2011).

All the information provided in the governments' health websites or portals undergoes a quality assurance review process, and is sourced from a range of trusted partners including major health organizations in each country. The contents are developed using content governance framework, which also includes quality assessments of selected information partners.

## 2. Background of the problem

In Malaysia, non-communicable diseases surpass the communicable diseases in terms of morbidity and mortality. Non-Communicable Disease (NCD) such as cardiovascular disease, diabetes and cancer are the major causes of admissions and deaths in government hospitals (Health Facts, 2012). The National Health Morbidity Surveys (NHMS) conducted in 1996 (NHMS II) and 2006 (NHMS III) showed that the prevalence of diabetes and hypertension are increasing in trend. The prevalence of Diabetes Mellitus has increased twofold in NHMS III (14.6%) as compared to NHMS II (8.3%) and higher prevalence in Hypertension and Cardiovascular Disease has also been observed in NHMS III.

By the year 2020, it is estimated that people of 60 years of age will contribute to 11.2% of the total population, with a consequent increase in morbidity (NHMS III, 2006). The expected increase in the number of elderly will result in a consequent increase in morbidity conditions which may consume a large portion of funds for health. It has been made aware that it is difficult to change and modify behaviors of individuals and communities. A lot of health messages and information has been disseminated to the public but these have yet to be translated into actions and behavioral changes.

Clearly, there is still a wide gap between community's knowledge and their behavior. Ultimately it is communities, families and individuals who must change their behavior in order to be healthier. It is obviously being aware that the community still does not take ownership of their health issues. Community empowerment thus becomes instrumental. Having access to any of the ehealth applications such as online health education services could enhance this. Community needs to participate in ehealth for their own health benefits. Their participation can be improved through developing their skills and abilities to build capacity. Therefore, there is an urgent need to create a high level of awareness within the public about health and wellness, for example; awareness on health risk assessment, prevention of disabilities and healthy ageing. These as mentioned earlier were provided in MHP. Likewise it is crucial to study individual's attitude and behavioral intention towards health promotion and education as person's behavior is predicted by their attitude toward the particular behavior and how they think other people would view them if they did the actual behavior. Both of these factors determine a person's behavior intention, which leads to whether the actual behavior will be carried or not. Thus this proposed study tries to fill the gap and to investigate the factors that influence the use of WBHIS and the role of psychological influence that might have on the behavioral change activity towards encouraging Malaysian in applying MHP.

## 3. Statement of the problem

Information technology (IT) is an important enabler in resolving health issues but IT is only part of the solution towards improving patient safety and restoring patient trust. Health users' intention to use and factors that hinder them from being engaged with the technology would be important elements that contribute to a successful implementation of a new IT introduction. Lee (2003) highlighted, it is important to understand the process of technology diffusion among end users for effectively implementing adoption and coping with frequent changes in the environment. Similarly, MHP has been introduced in Malaysia since 2005 but the outcome is known

to be limited within the health consumers and within the Ministry as well. A mere data which perhaps can conclude the figure is compiled from an unpublished study on MHP usage by the Institute for Health Behavioral Research Malaysia (IHBR) (2014) revealed around 34 percent of respondents know MHP however only 9 percent had used it. While many can speculate the advantages offered by this WBHIS, it is of important to know the implementation particularly the intention and diffusion to use this portal among the health consumers. Relatively, little is known about the health consumers' intention to use MHP and the related factors that influence its usage. Thus it is imperative to conduct a study to investigate the usage factors and contribute to the body of knowledge regarding this particular WBHIS.

In addition, there is a gap found in the literature where psychological moderators have not been much explored in relation between intention to use of WBHIS and attitude (Yun & Park, 2010). User acceptance or resistance of information technology has been studied by many researchers in the field of management information system (MIS) investigating elements such as the design, structure, information quality and trust factor. In healthcare, behavioral change typically needs to be investigated by incorporating psychological element to understand the situational context of what factors there are that hinder the use of WBHIS. This factor should be considered in order to investigate the psychological effect of user acceptance towards the intention to use WBHIS. Similarly, the above discussion shows the importance of the Health Belief Model (HBM) that may affect user's intention to use MHP. Therefore, for this proposed study, the diffusion aspect will be investigated using the Diffusion of Innovation's constructs (DoIs) (Rogers, 2003) which served as the predictor of health consumers' attitudes based on the Theory of Reasoned Action (TRA) (Ajzen, 1985) towards users' intention to use a WBHIS (MHP) moderated by psychological factor, the Health Belief Model (HBM).

This study specifically aims to; examine health consumer's attitude towards intention to use a WBHIS; explore health consumer's intention to use a WBHIS; and; explore psychological factors that influence health consumer's intention to use WBHIS with regards to the Health Belief Concept (HBM).

#### 4. Research objectives

The proposed study offers the following objectives to be investigated:

- RO 1 : *To examine whether there is a significant relationship between the diffusion aspect and health consumers' attitudes in using MHP?*
- RO 2 : *To investigate whether psychological factors influence the relationship between diffusion aspects and health consumers' attitudes toward the use of MHP?*
- RO 3 : *To examine whether there is a significant relationship between social factors and health consumer's intention to use MHP?*
- RO 4 : *To investigate whether psychological factors influence the relationship between social factors and health consumers' intention toward the use of MHP?*

#### 5. Research questions and hypotheses

RQ1: *What is the relationship between **complexity, relative advantage and triability** of MHP toward health consumers' **attitudes** in using MHP?*

H1a: **Complexity** will positively influence health consumers' **attitude** toward the use of MHP?

H1b: **Relative advantage** will positively influence health consumers' **attitude** toward the use of MHP?

H1c: **Triability** will positively influence health consumers' **attitude** toward the use of MHP?

RQ 2a: *How do **outcome expectations** and **cues to action** influence the relationship between **complexity** and health consumers' **attitudes** in using MHP?*

H2a: The relationship between health consumers' **complexity** and their **attitude** toward the use of MHP will be moderated by **outcome expectations**.

H2b: The relationship between health consumers' **complexity** and their **attitude** toward the use of MHP will be moderated by **cues to action**.

*RQ 2b: How do **outcome expectations** and **cues to action** influence the relationship between **relative advantage** and health consumers' **attitudes** in using MHP?*

H2b1: The relationship between health consumers' **relative advantage** and their **attitude** toward the use of MHP will be moderated by **outcome expectations**.

H2b2: The relationship between health consumers' **relative advantage** and their **attitude** toward the use of MHP will be moderated by **cues to action**.

*RQ 2c: How do **outcome expectations** and **cues to action** influence the relationship between **triability** and health consumers' **attitudes** in using MHP?*

H2c1: The relationship between health consumers' **triability** and their **attitude** toward the use of MHP will be moderated by **outcome expectations**.

H2c2: The relationship between health consumers' **triability** and their **attitude** toward the use of MHP will be moderated by **cues to action**.

*RQ 3: What is the relationship between **attitude** and **subjective norms** toward health consumer's **intention** in using MHP?*

H3a: **Attitude** will positively influence health consumers' **intention** toward using MHP.

H3b: **Subjective norms** will positively influence health consumers' **intention** toward using MHP.

*RQ 4a: How do **outcome expectations** and **cues to action** influence the relationship between **attitude** and health consumers' **intention** to use MHP?*

H4a1: The relationship between health consumers' **attitude** and their **intention** to use MHP will be moderated by **outcome expectations**.

H4a2: The relationship between health consumers' **attitude** and their **intention** to use MHP will be moderated by **cues to action**.

*RQ 4b: How do **outcome expectations** and **cues to action** influence the relationship between **subjective norms** and health consumers' **intention** to use MHP?*

H4b1: The relationship between health consumers' **subjective norms** and their **intention** to use MHP will be moderated by **outcome expectations**.

H4b2: The relationship between health consumers' **subjective norms** and their **intention** to use MHP will be moderated by **cues to action**.

## 6. Theoretical framework

The theoretical approaches applied in this proposed study are seeking to understand user's intention to use WBHIS in terms of the implementation process as well as to understand the psychological determinants of user acceptance at an individual level. Figure 1 explains the relationship between independent variables, dependent variables and moderators.

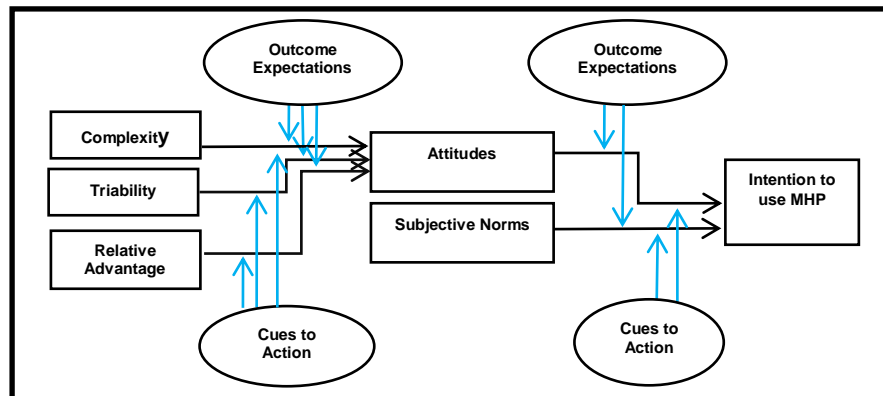


Fig. 1. Conceptual framework for the moderating effect of psychological factors towards the diffusion of MHP

## 7. Significance of the study

The findings will provide valuable information to healthcare policy makers, research-funding agencies, WBHIS's users and the stakeholders about what changes are necessary to promote MHP. The results will also address the concerns of Education Development Division under the Ministry of Health in identifying and assessing the critical success factors of user acceptance towards MHP. Finally this study will contribute to the growing body of knowledge by exploring how psychological effect might have in relation to health information portal usage. These variables are of particular interest in light of the fact that personal health information management presents other challenges to the user beyond general technology adoption.

## 8. Literature review

### 8.1. eHealth and Telemedicine

The confluence of the internet's rapid growth with the increasing adoption of health information technology has led to the development of new types of ehealth information technologies. Eysenbach (2001) has proposed ehealth as the following;

*“ehealth is an emerging field in the intersection of medical informatics, public health and business, referring to health services and information delivered or enhanced through the Internet and related technologies. In a broader sense, the term characterizes not only a technical development, but also a state-of-mind, a way of thinking, an attitude, and a commitment for networked, global thinking, to improve healthcare locally, regionally, and worldwide by using information and communication technology.”*

ehealth examples include internet discussions and support groups, internet-based disease management programs, general and disease-specific health information portals, patient-physician communication tools, patient portals, personal health records, and patient-accessible medical records. ehealth may be most beneficial in its ability to enable new means of care delivery that place an emphasis on patient self-management.

It also has been known so far there are several countries that have recognized the potential of telehealth applications in their healthcare settings. Telehealth can be defined as the use of information and communication technologies to support and provide health information to a variety of health professionals and consumers on variety of health topics and issues, which are from the clinical to the general aspects (Mohan & Yaacob, 2004). In Malaysia, Telehealth project was launched in 1999 to achieve the National Health Vision that is to have a healthy nation by next year 2020. The main goal is to keep people in the “wellness” paradigm. It is intended to empower people to greater access and increase knowledge in personal health management and well-being. Among the applications, Mass Customised Personalised Health Information & Education (MCPHIE) is using the web or Internet technologies as the key standard in search for and receipt of health information. The

MCPHIE becomes the enabler for empowerment of the individual in order to achieve the national Health Vision of “promoting individual responsibility and community participation towards an enhanced quality of life” and this can be achieved by allowing the public to access online health information (A. Hashim, 2004).

## 8. 2. The Health Belief Model (HBM)

The Health Belief Model is a psychological health behavior change model developed to explain and predict health-related behaviors, particularly in regard to the uptake of health services (Robert, 1995). The health belief model was developed in the 1950s by social psychologists at the U.S. Public Health Service (Rosenstock, 1974) and is one of the most well-known and widely used theories in health behavior research. The HBM suggests that people's beliefs about health problems, perceived benefits of action and barriers to action; and self-efficacy explain engagement (or lack of engagement) in health-promoting behavior. A stimulus, or cue to action, must also be present in order to trigger the health-promoting behavior. The health belief model attempts to predict health-related behaviors by accounting for individual differences in beliefs and attitudes. Implicit in the conceptualisation of the health belief model (HBM) is the combination of perceived susceptibility with perceived severity (to produce perceived threat), and perceived benefits with perceived barriers (to determine evaluation of the course of action taken). As such, health behaviour is more likely to be carried out if benefits can be derived from performing the behaviour; there are few barriers to performing the behaviour, or some combination of these. Similarly, if one is “health motivated”, behavioural enactment is more likely. Finally, cues to action such as symptom perception or health communication may also prompt performance of the behaviour. For this proposed study, behavioral intention of health consumers will only be moderated with outcome expectation constructs consist of perceived benefits and perceived barriers and; cues to action construct.

### 8. 2. 1. Outcome expectations (perceived benefits vs perceived barriers)

Outcome expectation is comprised of perceived benefits and perceived barriers which are used together to determine evaluation of the course of action taken. As such, health behaviour is more likely to be carried out if benefits can be derived from performing the behaviour; there are few barriers to performing the behaviour, or some combination of these. Health-related behaviors are also influenced by the perceived benefits of taking action (Glanz, Rimer & Viswanath, 2008). Perceived benefits refer to an individual's assessment of the value or efficacy of engaging in a health-promoting behavior to decrease risk of disease (Janz & Becker, 1984). If an individual believes that a particular action will reduce susceptibility to a health problem or decrease its seriousness, then he or she is likely to engage in that behavior regardless of objective facts regarding the effectiveness of the action (Rosenstock, 1974). For example, individuals who believe that wearing sunscreen prevents skin cancer are more likely to wear sunscreen than individuals who believe that wearing sunscreen will not prevent the occurrence of skin cancer.

Health-related behaviors are also a function of perceived barriers to taking action (Glanz, Rimer & Viswanath, 2008). Perceived barriers refer to an individual's assessment of the obstacles to behavior change (Rosenstock, 1974a). Even if an individual perceives a health condition as threatening and believes that a particular action will effectively reduce the threat, barriers may prevent engagement in the health-promoting behavior. In other words, the perceived benefits must outweigh the perceived barriers in order for behavior change to occur (Janz & Becker, 1984 and Glanz, Rimer & Viswanath, 2008). Perceived barriers to taking action include the perceived inconvenience, expense, danger (e.g., side effects of a medical procedure) and discomfort (e.g., pain, emotional upset) involved in engaging in the behavior (Rosenstock, 1974a). For instance, lack of access to affordable health care and the perception that a flu vaccine shot will cause significant pain may act as barriers to receiving the flu vaccine.

### 8. 2. 2. Cues to action

The HBM posits that a cue, or trigger, is necessary for prompting engagement in health-promoting behaviors (Rosenstock, 1974b). Cues to action can be internal or external. Physiological cues (e.g., pain, symptoms) are an

example of internal cues to action. External cues include events or information from close others, the media, or health care providers promoting engagement in health-related behaviors. Examples of cues to action include a reminder postcard from a dentist, the illness of a friend or family member, and product health warning labels. Research assessing the contribution of cues to action in predicting health-related behaviors is limited (Janz & Becker, 1984; Rosenstock, 1974b; Carpenter, 2010 and Glanz, Rimer & Viswanath, 2008). Cues to action are often difficult to assess, limiting research in this area. For instance, individuals may not accurately report cues that prompted behavior change. Cues such as a public service announcement on television or on a billboard may be fleeting and individuals may not be aware of their significance in prompting them to engage in a health-related behavior.

### 8.3. Diffusion of Innovations (DoIs)

DoIs is one model used to predict information system usage. Rogers (2003) defined diffusion as the process by which an innovation is communicated through certain channels over time among the members of a social system and implemented. In diffusion theory, the adoption process is highlighted as inseparable from the diffusion process where diffusion is imposed of individual adoption. Indeed, diffusion describes the adoption process across a population over time. As of 2004, more than 5000 diffusion publications had referenced his theory (Rogers, 2004). Diffusion of Innovations has been applied to numerous contexts, including medical sociology, communications, marketing, development studies, health promotion, organizational studies, knowledge management, and complexity studies (Greenhalgh et al., 2005). In this theory, the adoption of innovation is modeled as a process of information gathering and uncertainty reduction with a view to evaluate the technology. The individual's decision on whether to use the technology is based on perceptions of the technology such as relative advantage, compatibility, complexity, trialability and observability (Rogers, 1995). The objective of DoIs research is to explain or predict rates and patterns of innovation adoption over time and/or space. An outcome of DoIs research has been the identification of innovation attributes which ostensibly influence diffusion at the individual level (relative advantage, compatibility, complexity, trialability, and observability) (Rogers, 2003 & 2004).

However, Rogers's perceptual measure, while valuable, is somewhat limited in its ability to explain the user's initial attitude toward adopting innovations. In addition, the work of Rogers' and all subsequent research employing his model leaves a critical gap in the existing knowledge of this important subject. That gap is precisely what to be addresses in this proposed research, namely identifying and empirically examining pre-adoptive behaviors toward technology adoption and usage through three DoIs measures; complexity, relative advantage and trialability. The three attributes from Rogers are selected as the most face valid constructs studied WBHIS intention to use by employing independent variables of complexity, relative advantage, and trialability from Rogers (Conrad, 2009) and using Davis's behavioral intent to predict willingness to use. Behavioral intention is a function of both attitudes toward a behavior and subjective norms toward that behavior, which has been found to predict actual behavior. Rogers's constructs of relative advantage and complexity have been demonstrated to be theoretically the same as Davis's perceived usefulness and perceived ease of use. It is believed that the use of these variables will effectively explained willingness to use at the individual level.

### 8.4. Theory of Reasoned Action (TRA)

The theory of reasoned action (TRA) is a model for the prediction of behavioral intention, spanning predictions of attitude and predictions of behavior. TRA was developed by Martin Fishbein and Icek Ajzen (1980) and in the theory, intention is defined as the motivation required to perform a particular behaviour. Therefore, the more one intends to perform a behavior, the more likely is its performance. Within this framework, intention is held to be determined by attitudes (general positive/negative evaluation of behaviour) and subjective norm (global perception of social pressure). The details of the two constructs are highlighted below.

#### 8. 4. 1. Attitudes

Attitude refers to an individual's positive and negative evaluations with regard to a behavior (Ajzen & Fishbein, 1980). Much of the research supports the view that attitudes and subjective norms, can significantly predict intention (Ajzen, 1991; Kim, 2009; Madden, et al., 1992; Pavlou & Fygenson, 2006; Venkatesh & Brown, 2001). Specifically, Ajzen and Fishbein (1980) found that an individual's attitude toward a behavior is a predictor toward the intention toward that behavior. In other words, Ajzen and Fishbein (1980) found that if an individual has a positive attitude toward a behavior, he/she is more likely to engage in that particular behavior. In the contrary, a negative attitude would have a negative effect on intention.

In a study by Torres (2011), attitude was found as significantly affect users' intentions to use patient health portal (PHPs). Previous studies also have shown that attitude is a strong predictor of intentions (Madden, et al., 1992; Mathieson, 1991; Norman & Conner, 1996; Taylor & Todd, 1995; Venkatesh & Brown, 2001).

#### 8. 4. 2. Subjective Norms

Subjective norm refers to an individual's perception of the people important to him/her and his/her thoughts regarding a particular behavior (Ajzen & Fishbein, 1980). In other words, an individual who believes that he/she should engage in a particular behavior based on the perceived social pressure may more likely intend to engage in the behavior (Ajzen, 1991a). On the other hand, if an individual believes that those who are important to him/her think that he/she should not engage in a particular behavior, he/she will less likely intend to engage in the behavior. Torres (2011) found that a subjective norm was significant towards users' intentions to use patient health portal (PHPs). Other research studies also had found subjective norms to be a significant predictor of intentions (Madden, et al., 1992; Mathieson, 1991; Norman & Conner, 1996; Taylor & Todd, 1995; Venkatesh & Brown, 2001). Jian et al. (2012) also reported that subjective norms became one of the critical issues for the adoption of personal health records technology (PHRT) among health care users.

### 9. Research Methodology

Participants will be recruited from a convenience sample of adults in the area of Klang Valley ranging from 18 to 56 years old and willing to participate in the survey. An open invitation will be made through placement of flyers in public area, through the electronic means (Facebook and email invitation) and by word of mouth. The survey instrument will include the background questionnaire, adopted *Technology Adoption* (Moore & Benbasat (1991); Rogers (1995), and *Health-related Belief Questionnaire*. The survey will be conducted in two phases. The first phase involved conducting a pretest of the survey instrument. The pretest is conducted to ensure that the initial survey items are significant to this study and to examine reliability of scales. Upon completion of the pretest analysis, the survey instrument will be finalized and administered to the sample population.

Based on an initial power calculation using the G-Power application, a minimum of 200 participants will be needed for this dissertation. G-power computes the effect size based on the number of parameters that are defined in a study (Erdfelder, Faul, & Buchner, 1996). Based on a specified number of parameters (dependent and independent variables), the system calculates the minimum number of participates needed in order to ensure that the results from the study are not a result of chance. Using the multivariate research requirement that asks for 25 observations (Hair et. al, 1998) for each variable, a minimum of 200 participants is needed for this dissertation.

### 10. Conclusion

The Ministry of Health Malaysia has launched MHP in 2005 but the intention to use MHP is known to be limited within the health consumers and within the Ministry as well. It has been known so far limited studies were conducted on exploring the users' intention to use MHP though this new technology is said to empower users to make an informed decision regarding their health condition through trusted and reliable health information provided in the portal. While many can speculate the advantages offered by this WBHIS, it is of important to know the implementation particularly the intention and diffusion to use this portal among the health consumers. Thus there is a need for investigating the usability aspect of this technology and contribute to the

body of knowledge regarding this particular WBHIS. This proposed study is intended to investigate the MHP usage and other related factors that influence its usability using a quantitative approach. This research is practically imperative as it can help to understand some factors that might hinder users from using MHP and inhibit them from making an informed decision regarding their health condition. It is expected that the findings would significantly help relevant parties to analyze the changes that are necessary in order to promote MHP to the mass.

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## Building International Relationship Trust among SMEs: The Moderating Effect of Communication

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### Abstract

The study of cross border relationship trust has gained scholars interest in recent years. In the context of SME exporters building a trusting relationships with foreign importers is strategically significant to counteracting the challenges of internationalization. Trust allows knowledge sharing between partners and helps small firm to develop foreign market knowledge which in turn reduces the uncertainties caused by the foreignness of the international markets. Although trust is central to interorganisational relationships, attention to building trust is rare. How firms develop and maintain trusting relationship is of interest to researchers. This paper relies on resource based view (RBV) and proceed with the notion that capabilities building is a function of internal resources that are unique, inimitable, rare and nontransferable. Previous literature provides evident on the important of organizational orientation toward market, entrepreneurship and learning. In addition, the literature also demonstrates that communication between partners is the critical function of relationship closeness and strength. We collected data from small and medium business exporters in the manufacturing sector. The sample contained a total of 199 participants. Data were analysed using hierarchical moderated regression analysis, and results showed that the relationship between learning orientation and trust was moderated by communication.

*Keywords: Trust, SMEs, Export, resource based view, organizational capabilities*

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## 1. Introduction

The study of cross border relationship trust has gained scholars interest in a pattern of growth (Silva, Bradley, & Sousa, 2012). One of the main reasons is cross border trading entails effective interaction between exporters and importers (e.g. Bloemer, Pluymaekers, & Odekerken, 2013; Spyropoulou, Skarmeas, & Katsikeas, 2010; Styles, Patterson, & Ahmed, 2008). Therefore, building a trusting relationships with foreign importers is strategically significant to counteracting the challenges of internationalization (Hilmersson & Jansson, 2012) mainly due to resource limitation of SMEs. Trust based relationship helps SMEs overcome these barriers by allowing resource transfers (Ambler & Styles, 2000) and recognize opportunity in foreign market (Ellis, 2011) which, in turn, augments an exporter's competitive capability in the marketplace (Skarmeas, Katsikeas, Spyropouliou, & Salehi-Sangari, 2008). Nevertheless, international relationships are complex and risky, which means that building and managing inter-firm relationships trust is of utmost importance for exporters..

Previous literature emphasizes on the important of knowledge about foreign market in minimizing the liability of foreignness and uncertainties of international markets (Vahlne & Johanson, 2013). The literature also acknowledges that resource scarce small firms acquired foreign market knowledge through resource sharing with foreign partner in a trusting relationship (Ismail, 2013). Scholars believe that trust is the foundation of business relationships (e.g. see Bachmann & Inkpen, 2011; Jiang, Henneberg, & Naude, 2011; Liu, 2012; Nes, Solberg, & Silkoset, 2007). In this study, inter-organizational relationships trust is defined as the belief that partner behavior is honest, sincere, and fair (Leonidou, Katsikeas, & Hadjimarcou, 2002). Although trust is central to inter-organizational relationships (Dowell, Heffernan, & Morrison, 2013), attention to building trust is rare (Sengun & Wasti, 2011).

In light of the above discussion, developing and maintaining a trusting relationship with importers is essential for export ventures to perform successfully. Therefore, how firms develop and maintain trusting relationship is of interest to researchers (Dowell, et al., 2013). This paper relies on resource based view (RBV) and proceeds with the notion that capability building is a function of internal resources that are unique, inimitable, rare and nontransferable. Since SMEs are deprived of tangible resources hence the dependent on intangible resources which is linked to the organizational culture as well as the 'smallness' that allow greater flexibility to adapt to the changes of external environment (Knight & Cavusgil, 2004). Previous literature provides evident on the important of organizational orientation toward market (Narver & Slater, 1990), entrepreneurship (Knight & Cavusgil, 2004) and learning (Souchon, Sy-Changco, & Dewsnap, 2012).

The establishment of organizational relationships is intimately related to communication (Polo-Redondo & Cambra-Fierro, 2008). Following Palmatier, Dant, Grewal, and Evans (2006, p. 138), this study defines communication as the "amount, frequency, and quality of information shared between exchange partners". Communication is a means of transmitting information from the importer about the export market. Therefore, the ability of each partner to communicate effectively determines the success of business relationships over the long term (Mohr & Nevin, 1990). Accordingly this study proposes that communication moderates the impact of organizational resources on relationship trust.

This study focuses on SMEs exporter. Export strategies are most attractive for SMEs because of the relative ease and swiftness of access to the foreign market (O'Cass & Weerawardena, 2009). The export sector has long been a major contributor to the gross domestic product (GDP) of Malaysia. For example, a report by Malaysia's Ministry of International Trade and Industry (MITI) (2012) shows that Malaysia's external trade in 2012 recorded an export value of RM702 billion. In addition, exporting is always key to strategic decisions aimed at increasing revenue and profit (Hill, Wee, & Udayasankar, 2012).

The main purposes of this study are to fill research gaps and to advance knowledge in cross-border inter-organizational relationship trust. This paper aims to achieve three objectives that supplement the research gaps identified a priori. First, this paper seeks to develop an organizational resource function and trust model for SME exporters. Second, this paper empirically investigates the organizational resource factors in developing

cross borders trust between SMEs exporters and its foreign importers. Third, this paper examines the moderating effect of communication on the relationship between organizational resources and relationship trust.

## 2. Literature Review and Hypotheses

### 2.1. Market Orientation

Market orientation is about the implementation of marketing philosophy. A market oriented firm is consistently delivering high quality products and services, and requires ongoing tracking and responsiveness to the marketplace (Jaworski & Kohli, 1993). Jimenez and Navarro (2007) maintain that the term market orientation includes the ability of the organisation to generate, disseminate, and use superior information about customers and competitors. In the context of cultural perspective, Narver and Slater (1990, p. 21) define market orientation as "...the organisation culture that most effectively creates the necessary behaviours for the creation of superior value for buyers and thus continuous superior performance for the business". Pelham (2010) suggests that market-oriented norms would tend to discourage sales management pressure on salespeople to push customers for short-term sales, to the detriment of long-term relationships and customer satisfaction. The author also suggests market oriented norms would discourage salespeople from selling-oriented behaviours and that this would be detrimental to long-term customer relationships. Although from cultural perspective market orientation is originally identified as consisting of three elements as mentioned above, some scholars attempt to explain the construct based on only two of the elements, namely customer orientation and competitor orientation. Previous studies tend to omit interfunctional coordination because it is less appropriate for small-sized firms (Rhee, Park, & Lee, 2010).

Market orientation increases the amount of customer information gathered and disseminated by the export firm and encourage cooperation between firms (Racela et al., 2007). In addition, market orientation facilitates the ability of an organisation [exporter] to predict, react, and capitalise on changes in the environment (Rose & Shoham, 2002), and provides the employee with a sense of belonging, a sense of direction, and feelings of contributing towards satisfying customer needs (Shoham et al., 2005). Moreover, from the strategic marketing perspective, market orientation provides a firm with market-sensing and customer-linking capabilities (Kirca et al., 2005). Customers may perceive value in a relationship when they receive relationship benefits from an exchange partner, which increases customer trust and their willingness to develop relational bonds (Palmatier, Dant, Grewal, & Evans, 2006) hence the following hypothesis is proposed.

H1: *The relationship between market orientation and relationship trust is significant*

### 2.2. Entrepreneurship Orientation

Entrepreneurial orientation is synonymous with inquiries into the emerging phenomena of SME internationalization (Ismail, Isa, & Ali, 2013). Miller (1983, p. 177) referred to entrepreneurial firms as "...those that are geared toward innovation in the product market field by carrying out risky initiatives, and which are the first to develop innovations in a proactive way in an attempt to defeat their competitors" (p. 771). The concept of entrepreneurship orientation is suggested to be associated with the decision-making activities that managers used to act entrepreneurially and pursue new entry. According to Atuahene-Gima and Ko (2001), entrepreneurship orientation may translate to a strong and positive focus on innovation. Considering that the activities of internationalization relate to innovative processes (Cassilas & Moreno-Menendez, 2014), the role of entrepreneurship in cross-border relationship commitment is underscored.

Knight (2000) suggested that entrepreneurship may be especially useful for firms that are strongly affected by globalization, especially SMEs. Zahra and Garvis (2000) highlighted the importance of entrepreneurial activities for success in general and also for international markets because entrepreneurial orientation supports opportunities for obtaining recognition and carrying out expansion to new markets. Knight and Cavusgil (2004) found that entrepreneurial orientation may be especially important to small firms because it appears to drive

them toward developing high-quality, distinctive, and technologically advanced goods. A venture must have access to the resources that enable it to go international in order to realize these benefits (Fernhaber, Gilbert, & McDougall, 2008). At the heart of conceptualizing entrepreneurship is opportunity-seeking behaviour; firms may develop opportunities for new business in foreign markets by creating knowledge of foreign markets through relationships with other firms (Johanson & Vahlne, 2006). The entrepreneurially oriented firm overcomes the barrier of lack of resources by channelling the pro-activeness, innovativeness, and risk-taking initiatives to leverage the competence of foreign partners. Therefore, this study proposes the following hypothesis:

H2: *The relationship between entrepreneurship orientation and relationship trust is significant.*

### 2.3. Learning Orientation

Learning orientation is defined as “a basic attitude toward learning” (Real, Roldan, & Leal, 2014, p. 189). Sinkula and colleagues (1997, p. 309) suggested that learning orientation “...gives rise to that set of organizational values that influence the propensity of the firm to create and use knowledge.” Calantone and colleagues (2002) related learning to organization-wide activities, including obtaining and sharing information about customer needs.

Learning is critical to SME internationalization process (Nordman & Tolstoy, 2014) because it helps small firms to develop the ability to compete and survive in the market (Rhee, Park, & Lee, 2010) by creating customer value (Nasution & Mavondo, 2008). In addition, learning is the tool behind relationship governance in inter-organizational relationships (Liu, 2012). Organizations with cultures conducive to learning are likely to learn from their experiences (Emden, Yaprak, & Cavusgil, 2005) which, in turn, facilitate the acquisition of foreign market knowledge by internationalizing firms (Freeman, Edwards, & Schroder, 2006). The relationship is strong when firms learn from the experience gained during interaction and use that learning to anticipate and act according to the norms that satisfy the needs of the partner. Thus, firms are able to gain knowledge through learning capacity and implement appropriate operational adjustments that lead to stronger partnerships (Perez-Nordtvedt, Babakus, & Kedia, 2010) and trust. The willingness of a partner to commit into the partnership increases with satisfaction. Based on this discussion, this study suggests the following hypothesis:

H3: *The relationship between learning orientation and relationship trust is significant*

### 2.4. Communication

The success of business relationships is contingent on the ability of each partner to communicate effectively (Mohr & Nevin, 1990). Palmatier et al. (2006, p. 138) defined communication as the “amount, frequency, and quality of information shared between exchange partners.” Information sharing refers to “the mutual sharing of business and market information between exchange partners” (Wu, 2008, p. 123). Carr and Kaynak (2007) stated that information sharing is about information shared between a buyer and a supplier; such information is sufficiently detailed, frequent, and timely to meet the requirements of a firm and enable partners to enhance their performance in the relationship.

Communication is a considerable challenge in international relations because of problems such as physical distance that reduces face-to-face contact, as well as language and cultural differences (Nes, Solberg, & Silkoset, 2007). Effective inter-organizational communication among members facilitates the benefits of strong relationships in the global marketplace (Griffith & Harvey, 2001). Without effective inter-organizational communications, learning among network partners will be diminished and long-term effectiveness of the network will be damaged (Koza & Lewin, 2000).

Information sharing is the outcome of the quality of communication between partners. Poor communication limits the accumulation of market knowledge and restrains the opportunity-seeking ability and innovativeness of SMEs. Therefore, communication will diminish the influence of entrepreneurship on relationship trust. Based on this argument, this study proposes the following hypotheses:

- H4: *Communication moderates the relationship between learning orientation and relationship trust.*  
 H5: *Communication moderates the relationship between learning orientation and relationship trust.*  
 H6: *Communication moderates the relationship between entrepreneurship orientation and relationship trust.*

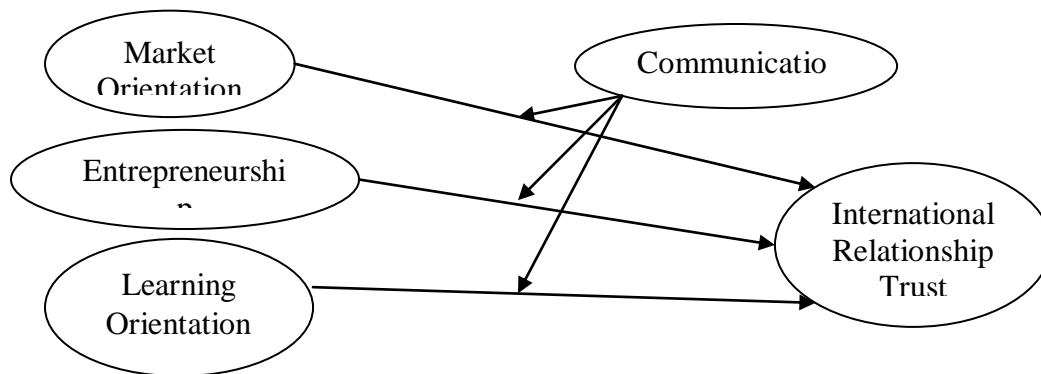


Figure 1 Conceptual Framework

### 3. Methodology

#### 3.1. Sample and Data Collection

The sample were derived from the directory of the Federation of Malaysian Manufacturers and consisted of manufacturing SMEs with 10–250 employees. The minimum cut-off number of employees was set to 10 to capture an appropriate measure of constructs. Following Bell et al. (2004), the firms in this study are independent and not subsidiaries of a large domestic or international company to avoid potential resource and cultural influences on decision-making. In addition, the selected companies engaged in foreign market entry and expansion to global markets via independent foreign importers.

The units of analysis were the key informant namely chief executive officers (9.1 percent), managing directors (60.3 percent), export managers (5.9 percent), and marketing/sales managers (24.2 percent). Early (60 percent) and late (40 percent) respondents were compared in the process of monitoring non-response biases. The comparative results (ANOVA) showed no significant differences among the respondents. A total of 851 firms fulfilled the criteria of the investigation. However, 68 firms refused to participate, were inaccessible, or had closed down; 199 firms (23.38 percent response rate) participated in the survey.

The respondents were classified as small firms (54.70 percent) and medium firms (45.30 percent). In this study, 58.70 percent of the participating firms were owned by Malays, 30.20 percent were managed by Chinese, and 11.10 percent were controlled by other races. In addition, 27.3 percent of the respondents belonged to the food and beverages industry, 9.1 percent from the metal industry, 5.3 percent from the wood industry, and 5.3 percent from the plastic industry. The representatives of other industries ranged between 0.5 percent and 4.8 percent.

#### 3.2. Instruments

The scale for market orientation was adapted from the work of Pelham and Wilson (1996). The original version of the scale was based primarily on Naver and Slater (1990). The scales for learning orientation were based on

the research by (Jerez-Gomez, Cespedes-Lorente, & Valle-Cabrera, 2005), Sinkula et al. (1997), and Nasution and Mavondo (2008). For entrepreneurship orientation this study used items developed by Knight and Cavusgil (2004), Nasution and Mavondo (2008), Zhou (2007), Wang (2008), and Covin and Slevin (1989) which consists of three constructs, namely, pro-activeness, risk taking, and innovative. The scales for *trust* were revised and adapted from the original version developed by Leonidou, Katsikeas, and Hadjimarcou (2002) and Skarmeas et al (2008). For communication, the scale [five items] was devised by Mohr and Spekman (1994).

### 3.3. Validity and Reliability

A confirmatory factor analysis (CFA) was conducted to test for construct validity, dimensionality, and internal consistency. The scale was initially purified and items with less than factor loading (standardized) of 0.60 could be deleted. For the multidimensional constructs, namely market orientation, learning orientation and entrepreneurship orientation, items measuring the dimension were operationalized as summate. Based on the purified scale, we ran the measurement model. The minimum score for the standardized factor loadings is 0.63, whereas that for the extracted average variance is 0.72. These numbers indicate a convergent validity and unidimensionality of all constructs. As shown in Table 1, the score for square root average variance extracted is greater than the correlation between construct in all cases, indicating that the measurement items strongly correlate with the underlying constructs and weakly correlation with other constructs, thus suggesting adequate discriminant validity.

We tested for discriminant validity using a series of CFAs suggested by Bagozzi, Yi, and Philips (1991). Every construct was paired with other construct and the chi-square of the constrained model was compared with that of the unconstrained model. The results indicate significant chi-square difference for every construct pair and further support discriminant validity.

### 3.4. Correlation

Table I shows the Pearson correlations between constructs. Correlation between entrepreneurship orientation and learning orientation is 0.7, thus suggesting a concern for multicollinearity between constructs. Variance inflation factor was performed to test multicollinearity. The results show in Table 3, all values less than 4, indicate that multicollinearity is not an issue.

Table 1 Square Root Average Variance Extracted (AVE) and Correlation of Constructs

Construct	1	2	3	4	
1. Market Orientation	<b>0.74</b>				
2. Entrepreneurship Orientation	0.53***	<b>0.72</b>			
3. Learning Orientation	0.54***	0.71***	<b>0.79</b>		
4. Communication	0.36***	0.47***	0.50***	<b>0.82</b>	
5. Relationship Trust	0.32***	0.42***	0.46***	0.59***	<b>0.73</b>
Cronbach Alpha ( $\alpha$ )	0.83	0.78	0.87	0.90	0.81
Mean	5.44	5.22	5.37	5.52	5.30
Standard deviation	.71	.79	.78	.83	.71
Skewness	-0.09	-0.64	-0.70	-0.63	-0.00
Kurtosis	-0.12	0.52	0.42	0.43	-0.17

\*\*\*Correlation is significant at the 0.001 level; \*\* Correlation is significant at the 0.01 level;

\*Correlation is significant at the 0.05 level. Notes: Square Root of AVE value is shown in diagonal

## 4. Hypotheses Testing and the Results

We use hierarchical moderated regression (SPSS 22) to estimate the research model. Table II illustrates the four regression models. Control variables were entered in Model 1 (Step 1), and the results show that the control variables do not contribute to the variance in relationship commitment. Adding the independent variables in

Model 2 increases the explained variance ( $R^2$ ) in relationship commitment by 0.24 (statistically significant:  $\Delta R^2 = 0.24$ ,  $F$  change = 18.64,  $p < 0.001$ , two-tailed test). This finding suggests that market orientation, learning orientation and entrepreneurship orientation explain 24 percent of the total variance in relationship trust. Communication was added in Model 3, and the results indicate that communication explain 16 percent of the variance in relationship commitment (statistically significant:  $\Delta R^2 = 0.16$ ,  $F$  change = 45.54,  $p < 0.001$ , two-tailed test). Finally in Model 4, the interaction terms, namely learning orientation x communication and entrepreneurship orientation x communication, were entered simultaneously, thus increasing the explained variance by 3 percent (statistically significant:  $\Delta R^2 = 0.05$ ,  $F$  change = 5.73,  $p < 0.01$ , two-tailed test).

As shown in Models 2, 3 and 4 of Table III, the effect of market orientation on relationship trust is not significant, therefore hypothesis 1 is not support. Similarly, entrepreneurship orientation is found to have no significant effect on relationship trust hence hypothesis 2 is not supported. On the other hand, Table III indicates that the effect of learning orientation on relationship trust is positive and significant in model 2. However, when communication and interaction terms are added in model 3 and model 4 respectively the effect of learning orientation on relationship trust is not significant.

In this study, communication was tested for moderating function. Multiple regression technique, also known as moderated multiple regression, was used to test the moderation effects. The scores of the focal variable and the moderator were initially mean centred by subtracting the original scores with mean values. Final scores were created by the interaction of the mean-centred focal variable and moderator. In Model 4 of Table III, the interaction effect on relationship trust was positive and significant, thus supporting Hypothesis 3 ( $\beta = 0.23$ ,  $t$ -value = 2.36,  $p < 0.05$ ). The results show that communication exerts significant moderating effects on the relationship between learning orientation and relationship trust, thus implying the importance of communication on SME internationalization.

Table 2 Hierarchical Moderated Regression Analysis

Variables	Dependent Variable - Relationship Trust				VIF
	Model 1	Model 2	Model 3	Model 4	
<b>Control Variables</b>					
Firm Size (No Employee)	-0.10(-1.06)	-0.09 (-1.06)	-0.04(-0.58)	-0.06(-0.78)	1.82
Ownership	-0.00(-0.02)	0.11 (1.41)	0.02(0.35)	0.07(0.97)	1.67
Turnover	0.08(0.72)	0.01 (-0.18)	-0.05(-0.64)	-0.02(-0.25)	2.10
<b>Independent Variables</b>					
Market Orientation		0.07(0.83)	0.02(0.38)	0.04(0.64)	1.64
Entrepreneurship Orientation		0.18(1.84)	0.07(0.85)	0.13(1.48)	2.60
Learning Orientation		0.31(3.10)**	0.16(1.81)	0.17(1.84)	2.43
<b>Moderator</b>					
Communication			0.46(6.74)***	0.42(6.17)***	1.52
<b>Interaction</b>					
MO x Communication				0.12(1.56)	1.73
EO x Communication				-0.11(-1.17)	3.01
LO x Communication				0.23(2.36)*	3.08
$R^2$	0.00	0.24	0.40	0.45	
Adjusted $R^2$	-0.01	0.22	0.37	0.42	
F-Ratio	0.39	9.57***	16.74***	14.37***	
$\Delta R^2$	-	0.24	0.16	0.05	
Degree of freedom	3/177	3/174	1/173	3/170	
F-Change	0.39	18.64***	45.54***	5.73**	

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$



Notes: Values of standardized regression coefficient are reported and t-values are in parentheses; Dependent variable is commitment.

Following Aiken and West (1991), further analysis was conducted to discover the nature of the moderated relationship using the technique for probing the interaction term (Bauer & Curran, 2005) to gain further insights into this moderated relationship. This study adopted two approaches. The first approach was originally developed by Johnson and Neyman and is known today as the Johnson–Neyman (De Clercq, Sapienza, & Crijns) (J–N) technique. The J–N technique involves plotting and testing the conditional effect of the focal predictor at designated levels of the moderating variable (e.g., high, medium, and low) where these conditional effect estimates are commonly referred to as “simple slopes” (Bauer and Curran, 2005). This study used the second approach described as pick-a-point technique (Hayes & Matthes, 2009) to plot the interaction. For the purpose of computation, this study used a macro in SPSS developed by Hayes and Matthes (2009).

Table 3 OLS Regression Estimation of Trust on Learning Orientation, Communication and Interaction between Learning Orientation and Communication

	b	se	F	P
Learning Orientation	0.2488	0.0590	4.2161	<0.001
Trust	0.4350	0.0548	7.9398	<0.001
Interaction	0.1906	0.0535	3.5655	<0.001

Table 4 MODPROBE Macro Output - Estimating the Conditional Effect of Learning Orientation at Values of the Communication

COMM	b	se	t	p
-0.8225	0.0920	0.0677	1.3592	0.1757
0.0000	0.2488	0.0590	4.2161	<0.001
0.8225	0.4056	0.0791	5.1307	<0.001

\*R<sup>2</sup> = 0.4301, F = 49.0561, df1 = 3.0000, df2 = 195.0000, p = <0.001

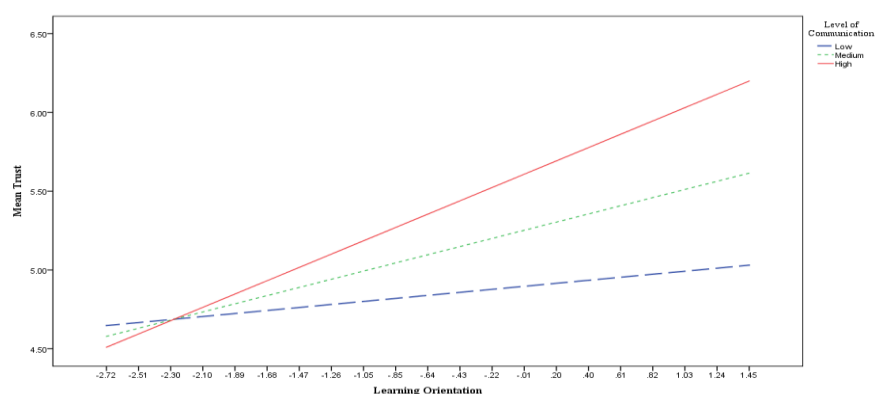


Figure 2 Interaction between Communication and Learning Orientation on Relationship Trust

In order to explain conditional regression, communication was split into three levels, namely high (one standard deviation above mean), medium (mean), and low (one standard deviation below mean). The test results for the slope analysis are shown in Figure 2 and the accompanying Tables 3 and 4. Table 4 shows the MODPROBE macro output for the estimation of the conditional effect of learning orientation at the three levels (i.e., low, moderate, and high) of communication. Figure 2 illustrates the plotting of the interaction at the communication levels. As shown in Table 4, the coefficients for learning orientation were positive and statistically different from zero at high and medium levels of communication. The results indicate that the positive relationship

between learning orientation and relationship communication is stronger when communication is high ( $b = 0.4056$ ,  $t\text{-value} = 5.1307$ ,  $p < 0.001$ ) than when it is low ( $b = 0.0920$ ,  $t\text{-value} = 1.3592$ , not significant). Therefore, small businesses will experience enhanced relationship trust by increasing their focus on learning culture when communication is high. In other words, the results suggest that small and competent firms in learning were able to build closer and superior relationships with foreign importer/distributor by committing to high level of communication in the working relationship.

## 5. Conclusion and Discussion

Our understanding of interorganizational trust remains limited (Bachmann & Inkpen, 2011). Despite the promising future reflected by the research trend (Liu, 2012; Morgan & Hunt, 1994), particularly in the context of international business (Bloemer, Pluymaekers, & Odekerken, 2013; Silva, et al., 2012). This phenomenon demonstrates a significant gap in the extant literature. The findings of this study not only contribute to the literature but also significantly guide both policymaker and practitioner alike.

The findings demonstrate that SMEs in emerging market greatly value the importance of learning in the development of cross-border relationship trust. However, the effect of learning on trust is fully moderated by communication. Communication has been found to contribute effectively toward relationship building. Communication occurs not only during exchange of information but also in the ability of the exporter to decipher codes from the importer. Thus, the enhanced learning process of obtaining information about importers helps equip exporters with the ability to better serve the needs of importers using effective and efficient communication. Firms are able to build strong relationships with their customers through uncomplicated and accurate communication (Agnihotri, Rapp, & Trainor, 2009). Therefore, efficient and effective communication assists organizational learning and consequently enhances the relationship trust with trading partners.

The results suggest that competent small firms in learning are able to build close and superior relationships with foreign importers or distributors by committing to a high level of communication in the working relationship. SMEs in emerging markets should see this as a priority in their quest toward successful export venture. For the policy maker, the findings serve as important guidelines in the development of multinational corporations.

Notwithstanding, the readers should interpret the results with cautious because this study has several limitations. First, a relationship is about the interaction between two or more partners but in this study data was gathered from the exporter's perspective. Although this approach is consistent with others (Lages, Silva, & Styles, 2009) the results perhaps are biased toward the exporter's point of view. Second, this study is cross sectional in nature hence the dynamic affects of relationship are ignored. In line with the limitations, future studies are suggested to focus on gathering data from two side of a relationship and longitudinal examination.

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# The Relationship between Social Capital and Self-Efficacy: Individual Perspective in the Context of Higher Education Institution

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## Abstract

Inspired by the scarcity of studies on social capital and its effect on self-efficacy among postgraduate students, a study was conducted to fill this gap. An empirical based framework connecting social capital and self efficacy was developed and tested using data obtained using survey research method. A total of 121 respondents participated in the study, and the results indicate that social capital, dimensionalized into six constructs, namely a sense of belonging, shared language, trust, networks, norm of reciprocity and shared vision, is found to have a significant relationship with self efficacy. Further analysis showed that shared language, trust and shared vision are the significant predictors of self-efficacy. The findings further signify the contribution of social capital in increasing the level of self-efficacy in the context of students in Higher Education Institutions (HEI).

*Keywords:* social capital, self-efficacy, knowledge management, university setting

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## 1. Introduction

A common understanding among social scientists is that social capital is a relational resource composed of a variety of elements, most notably social networks, social norms, values, trust and shared physical resources (Maslac & Magzan, 2011). Ellison et al. (2012) mentioned that social capital is one of the most often used construct for examining the effect of different factors on educational phenomena and outcomes. This is because social capital provides researchers with a framework for considering not only the resources explicitly held by an individual, but also those available to the individual via his or her social relationships.

Support and access to tangible resources such as financial aid or information, or more psychological in nature, such as social support, have been found to have a significant effect on the success of college or university students. These forms of support, termed as social capital, describe the potential resources that reside within social relationships and thus may be accessed by an individual. Lin (1999, 2001), outlines three crucial components of social capital, namely, the resources embedded in a social structure, the accessibility of these resources, and the ability to utilize or mobilize these resources.

Despite the importance of social capital in shaping the success of university-going students, empirical studies is still very limited. Most of the available literature also reports, studies done in countries outside Malaysia. Given the dissimilarity of culture, infrastructure, economic background, political landscape, the findings of these studies may not be applicable and relevant in the context of Malaysian education. Against this background, a study was conducted in the Malaysian university context with the aim of investigating the influence of social capital on students' self efficacy.

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## 2. Literature Review

### 2. 1. Self Efficacy

The psychological concept of 'self-efficacy' has its root from social cognitive theory developed by Albert Bandura. The terms defined by Bandura (1977) as the beliefs in one's capacity to organize and execute the courses of action required to produce given attainments. In contrast, Han et al (2014) defined self-efficacy as an individual's anticipation of one's ability to be in control under a particular situation. Han et al (2014) further described that self-efficacy plays an intermediate role between cognition and behavior, which reflects an individual's perception and confidence of his ability to complete specific tasks and reach particular goals.

The social cognitive theory suggests that there are four main sources of information that create students' self-efficacy, namely, enactive mastery experiences, vicarious (observational) experiences, social persuasions and physiological and psychological states (Dinther et al. 2011). The mastery experiences are considered the most powerful source of creating a strong sense of efficacy because they provide students with authentic evidence that they have the ability and capacity to succeed at the task (Palmer, 2006). Students interpret the results of their activities and use these interpretations to further strengthen their beliefs about their capability to perform in subsequent tasks or activities (Dinther et al. 2011). The second source of developing self-efficacy is through observational experiences provided by social models termed as vicarious experiences. Students obtain information about their own ability and capacity by observing others, especially colleagues who offer suitable possibilities for comparison (Schunk, 1987).

The third source that helps students develop beliefs of self-efficacy is through social persuasion, described as the persuasive and evaluative feedback from social ties. According to Bong & Skaalvik (2003), persuasive communication and evaluative feedback are most effective when people who provide this information are highly regarded by students as knowledgeable and reliable. The last source of self efficacy is concerned with a person's perception of their physical responses (stress, arousal, depression, mood) to threatening environments and situations. A positive mood state strengthens someone's self-efficacy while a dejected mood state weakens it (Dinther et al. 2011). People assess their capacities by perceiving and interpreting their mood and responses (Pajares, 1997).

### 2. 2. Social Capital

Depending on the theoretical background, the term social capital has been diversely defined by researchers. Coleman (1988) opined that social capital should be defined by its function, because it is not a single entity, but a variety of different entities having characteristics in common, and they all consist of some aspect of a social structure, and they facilitate certain actions of individuals who are within the structure. Lillbacka (2006) defined social capital as social resources acquired from a stable pattern of social interaction based on reciprocity, trust and mutual obligations, through which members of a group can acquire various material and non-material utilities. The term 'social resources' in this definition relate to social contacts, e.g. friendship ties, which an individual may mobilize in order to achieve certain ends, and which possess a certain degree of consistency and predictability (Lillbacka, 2006).

When discussing social capital, researchers will also address the distinction between bonding, bridging and linking. Bonding (exclusive) social capital refers to relations amongst relatively homogenous groups such as family members, close friends and neighbors (Briggs, 1998; Gittel & Vidal, 1998). Bridging (inclusive) social capital refers to relations with distant friends, associates and colleagues. These ties tend to be weaker and more diverse but more important in getting ahead and gaining opportunities (Briggs, 1998; Gittel & Vidal, 1998). Linking social capital refers to relations between individuals and groups in different social strata. According to Woolcock (2001) linking social capital enables groups to leverage resources, ideas and information from formal institutions beyond the community.

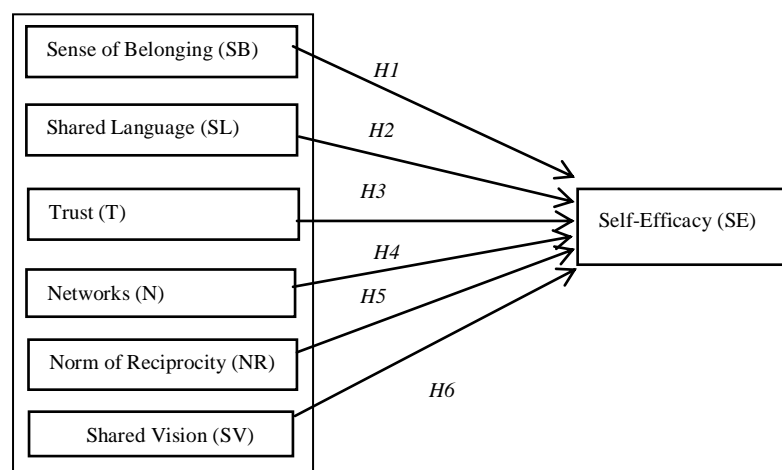
In a university or higher education setting, the concept of social capital has been used directly and indirectly (Carpenter & Morgan, 20120). Miracle (2013) states that, higher education is a conducive place to develop social capital because participants, particularly students, have the opportunity to build valuable relationships with individuals that results in access to resources such as information, the mutual exchange of favors, emotional support and networking.

### 3. Research Framework

As described by Bandura (1986), one of the source for developing self efficacy is through social persuasions which is closely related to social capital. It is only through social contacts, one can expect positive and evaluative feedbacks. Our social contacts whom we have a sense of belonging, shared language, trust and shared vision are those who concern with our progress and development. Their continuous constructive feedback on would further enhance our self efficacy. Studies by Cabello-Medina et al. (2011) and Han et al. (2014) evidently showed the contribution of social capital towards the improvement of self efficacy. The findings of these studies suggest that social capital works sparingly with self-efficacy. The higher is the social capital of an individual, the higher is the self efficacy. Drawing upon the aforementioned arguments, the research framework as shown in Figure 1 was developed. The dependent variable is self-efficacy while the independent variable is social capital dimensionalized as sense of belonging, shared language, trust, networks, norm of reciprocity and shared vision and derived from the work of Boeck et al., (2006); Aslam (2012); Monavvarian et al., (2013). Table 1 presents the operational definition for these independent variables.

Table 1: Operational Definition of independent variables

<i>Variable</i>	<i>Operational Definition</i>
Sense of Belonging	The belonging and support by members and social networks that may be especially important for academic motivation, engagement, and performance of students.
Shared Language	A tool for evaluation of benefits of knowledge exchange.
Trust	A social mechanism that is embodied in structures of social relations.
Networks	The connections and relationships of students.
Norm of Reciprocity	The expectation that people will respond to each other in similar ways.
Shared Vision	A common understanding about the ways of interaction leads to more and better opportunities for resource sharing without any misunderstanding.



Research framework

#### 4. Research Methodology

The study used survey research method with questionnaire as the instrument for data collection. The questionnaire was developed based on the questionnaire use by previous studies. For each variable, five or six items were used with a corresponding Likert scale anchored as 1 for “Strongly Disagree” and 5 = “Strongly Agree”. The respondents were required to respond based on their level of agreeableness. Prior to main data collection, the questionnaires were pre-tested and pilot tested to address the validity and reliability requirements. A systematic random sampling technique was used to determine the sample from the population. The questionnaires were distributed to the identified respondents and they were given about one week to respond. Reminders were given after one week for those who had not responded. After the one week period, a total of 121 questionnaires was returned. All of the questionnaires were found to be usable for further analyses. The execution of reliability analysis showed that the Cronbach Alpha for all variables are well above 0.7, implying that the measurement used is reasonably reliable. The result of the reliability analysis is shown in Table 2.

Table 2: Reliability Analysis of Research Variables

<i>Variable</i>	<i>Cronbach Alpha</i>
Sense of Belonging (SB)	0.893
Shared Language (SL)	0.910
Trust (T)	0.904
Networks (N)	0.895
Norm of Reciprocity (NR)	0.834
Shared Vision (SV)	0.879
Self-Efficacy (SE)	0.898

#### 5. Findings

Table 3 showcases the demographic profile of the respondents. Out of 121 respondents, 39.7% were male while the remaining 60.3% were female. In terms of age, the highest percentage was aged between 21 and 30 (77.7%) and followed by 31 and 40 (21.1%). The majorities indicated to be in semester one (48.8%) while the minority were from semester four (6.6%). The highest participation comes from MSc. in Information Management (52.9%) followed by MSc. in Knowledge Management (24.8%) and followed by MSc. in Library Management (22.3%).

Table 3: Demographic Profile of Respondent

	<i>Variable</i>	<i>Freq</i>	<i>Percent</i>
Gender	Male	48	39.7
	Female	73	60.3
Age	21-30	94	77.7
	31-40	26	21.5
	41-50	1	.8



	<i>Variable</i>	<i>Freq</i>	<i>Percent</i>
Semester	1	59	48.8
	2	34	28.1
	3	20	16.5
	4	8	6.6
Program	MSc. in Knowledge Management	30	24.8
	MSc. in Information Management	64	52.9
	MSc. in Library Management	27	22.3

In order to identify whether the data is experiencing common method bias, Harman's single factor test was executed. All items from all constructs under study were entered for analysis and constrained to only single factor. The result shows that the single factor explained only 42.78%, less than the benchmark value of 50% of the total variance, implying that the collected data is free from the problem of common method variance.

The results of the descriptive analysis and correlation between variables are presented in Table 4. The overall mean value for all variables surpass the mid-point value of three while the standard deviation is less than 1.00 (based on the Likert scale, where 1 is the minimum and 5 is the maximum), suggesting that, generally these postgraduate students felt that their social capital is relatively high. The highest overall mean is for sense belonging while the lowest is for trust. The overall mean score for self efficacy is also high standing at 3.89.

The correlation analysis results indicate that the highest correlation value is 0.708 while the lowest is 0.401. Nevertheless the correlation between all independent variables and dependent variables are significant at 0.05 level, suggesting that all formulated hypotheses i.e. H1, H2, H3, H4, H5 and H6 are supported.

Table 4: Descriptive Analysis and Correlation Analysis of Research Variables

	Mean	Standard Deviation	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Sense of Belonging [1]	4.02	0.750	1						
Shared Language [2]	3.89	0.813	.315**	1					
Trust [3]	3.63	0.779	.395**	.412**	1				
Networks [4]	3.78	0.781	.463**	.497**	.565**	1			
Norm of Reciprocity [5]	3.90	0.750	.601**	.349**	.558**	.503**	1		
Shared Vision [6]	3.85	0.740	.437**	.621**	.531**	.491**	.399**	1	
Self Efficacy [7]	3.89	0.709	.401**	.708**	.540**	.505**	.409**	.644**	1

Table 5, 6 and 7 showcase the results of the multiple regression analysis between the independent variables and dependent variable. The results clearly show shared language, trust and shared vision interpretations is about 61% variance in self-efficacy.

Table 5: Model Summary of Regression Analysis

<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Standard Error of the Estimate</i>
0.781 <sup>a</sup>	0.610	0.590	1.90609

Table 6: ANNOVA of Regression Analysis

	<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
Regression	648.299	6	108.050		
Residual	414.182	114	3.633	29.740	.000 <sup>b</sup>
Total	1062.482	120			

Table 7: Coefficients of Regression Analysis

	<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>	<i>t</i>	<i>Sig.</i>
	<i>B</i>	<i>Standard Error</i>	<i>Beta</i>		
(Constant)	3.922	1.415		2.772	.007
Sense_of_Belonging	.071	.072	.076	.992	.323
<b>Shared_Language</b>	.457	.077	.462	5.928	<b>.000</b>
<b>Trust</b>	.206	.085	.195	2.409	<b>.018</b>
Networks	.039	.105	.030	.377	.707
Norm_of_Reciprocity	-.005	.098	-.004	-.054	.957
<b>Shared_Vision</b>	.299	.120	.208	2.492	<b>.014</b>

## 6. Discussions and Conclusion

The objective of this research has been to investigate the relationship between social capital and self-efficacy from the individual perspective in the context of higher learning institutions. Social capital has been operationalized as six dimensions which are sense of belonging, shared language, trust networks, norm reciprocity and shared vision. All the six dimensions of social capital are found to have significant relationship with self-efficacy. The findings are consistent with previous studies by Cabello-Medina et al. (2011) and Han et al. (2014). It also provides further support of the Social Cognitive Theory developed by Bandura (1997). Upon further analysis, three out of the six dimensions of social capital are found to be significant predictors, which are shared language, trust and shared vision.

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# Role of Talent and Employability Towards Organizational Success

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## Abstract

Talented employees should implement their aptitude successfully to meet economic challenges, develop the quality workforce and to boost transformation and growth. In addition, talent management becomes one of the primary tools for human asset management that seeks to categorize and nurture skills which will be needed to achieve organizational success and competitive advantage. However, very few studies demonstrate the success of those talented employees sustained in the organization and maintain their contribution for knowledge improvement which leads to organizational success as well. This paper will emphasize on the concept of talent and employability and its role towards organizational success.

*Keywords:* talent; talent management; employability; organizational success

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## 1. Introduction

The world of work has undergone changes in both the nature of work and the emergence of new forms of work, which result from innovation, the development of new knowledge, increased competition, and other factors (Brown, Hesketh, & Williams, 2003; Sennett, 2006). Today, work life is characterized by complexity, unpredictability, and insecurity. There has been a shift from a commodity-based economy to a knowledge-based economy, in which an increasing proportion of organizational assets are intangible. This knowledge-based economy is generating new structures and new and continuously changing demands and challenges in the world of work (Barnett, 2000; Brown, Hesketh, & Williams, 2003; Sennett, 2006). With businesses going global and competition becoming intense, there is mounting pressure on organizations to deliver more and better than before (Mutsuddi & Mutsuddi, 2008).

Thus, the interest in gaining employees with the highest potential (the best ones) is on the increase. It is connected with the demand for so called ‘talents’. There is a new term that has recently emerged, “war for talents”, which has its roots in the fact that the demand for the most gifted employees exceeds supply. This slogan was coined by McKinsey’s management board consultants in a report from 1996 (Robertson & Abbey, 2010). The rivalry for the best employees led to the emergence of the concept of talent management. It results from the fact that employees’ defined talents require a special approach and their management becomes a challenge for contemporary organizations.

Linkages between graduate qualities (attributes) and organizational talent are well documented (Connor & Shaw, 2008), with many organizations seeking graduate talent to supply talent pipelines to ensure strategic succession for continued success. Without a skilled workforce, without employees equipped by required abilities and knowledge, a number of organizations will not be able not only to keep up with the competition, but they even may not to survive under specified conditions (Borbos, 2009; Mikusova, 2008). Moreover, Malaysia is now said to be at the mid-point in its journey towards Vision 2020 and is transforming to become a developed nation during the second phase of a fifteen year period (Osman, Soh & Arsad, 2010). Hence, a more flexible workforce with advanced technical skills coupled with well-developed generic skills such as creative thinking,

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problem solving and analytical skills, is greatly needed by the employer in industry in order to meet the challenges faced by business (Singh & Singh, 2008).

However the practical usefulness of talent management (TM) is limited and the previous literature on TM has done little to advance such theories or practices in the field of HRM or HRD (Lewis & Heckman, 2006) and very few studies demonstrated the success of those talented employees sustained in the organization and maintain their contribution for knowledge improvement which will lead to organizational success as well. So, it is necessary for an organization to learn and use the consequent knowledge as a source of competitive advantage (Hass, 2006; Soliman & Spooner, 2002). Organizations need to adopt a more strategic approach to managing knowledge workers as superior performance is linked to tacit knowledge, the retention of employees who possess this knowledge and the ability to continuously harvest their knowledge and expertise (Kiessling & Harvey, 2006). Therefore, this paper will discuss the concept of talent and employability and its role towards organizational success.

## 2. Talent

Talent is regarded as being contextually independent and as a resource, and employees are classified and rewarded according to their general performance levels rather than according to specific jobs (Nilsson & Ellström, 2012). It is often narrowly defined in economic terms, such as human capital, assets, or market value, which are related to formal credentials (Brown & Tannock, 2009). Talent is usually related to the set of most value and performance-oriented competences of employees (Collings & Mellahi 2009; Tansley, 2011), especially in the case of highly qualified employees or knowledge workers (Whelan & Carcary, 2011). These talent people make to revenues, innovation and organization effectiveness (Ashton & Morton, 2005).

While from a TM approach, talented individual, social capital defined as an individual's ability to build and sustain relationships and networks. Talented are believed to deliver or have the potential to deliver a disproportionately higher contribution than other employees (Lubitsh, Devine, Orbea, & Glanfield, 2007). A more qualitative definition of talent is that it is the current capability or future potential of an employee to deliver exceptional performance in relation to what the organization wants to achieve. If this small group was to leave the organization, then its departure is assumed to have a disproportionately adverse effect on organizational performance (Downs & Swailes, 2013).

### 2.1. Talent Management

Organizations need to strategically manage talent flows so that individuals with the needed competencies are available, when needed and are aligned with the right jobs based on the organization's objectives (Iles, Chuai, & Preece, 2010; Tarique & Schuler, 2010). Since McKinsey consultants coined the phrase the "war for talent" in the late 1990s, it is becoming a critical driving force in corporate competitiveness and performance. The notion of TM has become increasingly popular and an important managerial activity (Axelrod, Handfield-Jones, & Michaels, 2002; Michaels, Handfield-Jones, & Axelrod, 2001; Hartmann, Feisel, & Schober, 2010; Scullion, Collings, & Caligiuri, 2010). TM can be considered as one of the fundamental instruments of human resources management in the organization.

In the broadest sense, talent management has been described as a deliberate and ongoing process that systematically identifies, assesses, develops and retains talent to meet current and future business needs and objective. Stated another way, it is about putting the right people with the right skills in the right position at the right time. TM is concerned with developing strategies; identifying talent gaps; succession planning; and recruiting, selecting, educating, motivating and retaining talented employees through a variety of initiatives (Groves, 2007; Guthridge & Komm, 2008; Ringo, Schwyer, DeMarco, Jones, & Lesser, 2010). It is also associated with activities that include incorporating new knowledge and doing things more quickly and efficiently (Chuai, Preece, & Iles, 2008). TM become a strategic imperative because new cycles of business growth, often requiring different kinds of talent. TM requires a strategic and holistic approach to both HR and business planning or a new route to organizational effectiveness. This will improves the performance and the

potential of people, the talent who can make a measurable difference to the organization now and in future (Ashton & Morton, 2005). Workplaces everywhere are facing an increasingly complex and ever-changing landscape in their efforts to acquire, retain, motivate, and develop the talent needed to keep their organizations operating efficiently and competitively. Talent management strategists must prepare for what is likely to be a roller coaster ride.

### 3. Employability

Employability is simply about getting a job (Dacre Pool & Sewell, 2007) and those possessing the capability to acquire the skills to do the required work may not necessarily be able to do the work immediately and without further training (Cox & King, 2006). Employability also can be understood as the individual, who has a set of skills, knowledge, understanding, and personal attributes that make the person more likely to choose a secure occupation, in which they can be satisfied, and successful (Dacre Pool & Sewell, 2007). Employability skills are defined as skills required not only to gain employment, but also to progress within an organization, so as to achieve one's potential and successfully contribute to organizational strategic directions.

From the perspective of employers, 'employability' often seems to refer to 'work-readiness', that is, possession of the skills, knowledge, attitudes and commercial understanding that will enable new graduates to make productive contributions to organisational objectives soon after commencing employment (Mason, Williams, & Cranmer, 2006). Employability is a critical requirement both for organizations, competing in a changing global environment, and for individuals, such as graduates, seeking to make successful careers and to continuously acquire or create, in an entrepreneurial way, fulfilling work through the optimal use of their skills and competencies (Nauta, van Vianen, van der Heijden, van Dam, & Willemsen, 2009). Highly employable individuals can enable organizations to meet fluctuating global demands for goods and services by adopting new roles and acquiring new skills.

To a large extent existing definitions suggest that individual characteristics and behaviours determine employability. They also assume a link between employability and employment. That is, if you have the right mix of skills, attitudes and behaviours, then you are supposedly employable. But, in reality, employability is an individual's relative potential to obtain and retain suitable employment within the current labour market context. Having an appropriate skill mix may increase the likelihood of employment success but it is not a guarantee, particularly in a highly competitive labour market where many others have the same skills, or in a narrow labour market where there are only limited opportunities (Clarke, 2008)

#### 3.1. Employable Talent

Talent and employability are overlapping concepts. Talented individuals are generally employable individuals. However, employability does not merely involve talent. Being talented may be necessary for being employable, but talent is not sufficient. Employability is associated with other aspects in addition to talent; thus, this factor complicates an organization's search for and development and training of talented employees. Competence is regarded as a central aspect of employability and talent. Today, specialized skills are not sufficient, and being employable is often associated with being a generally knowledgeable or educated person who can easily learn the specifics that are needed when they are needed (Nilsson & Ellström, 2012). The concept of employability is wider than that of talent, but talent is a central component of employability. Today, talent is associated with general and contextually relevant competence as a foundation for successful employee performance and organizational competitiveness (Brown & Tannock, 2009).

Some of the critical knowledge in an organization can be implicit and personal. Turnover becomes costly if knowledge is linked with certain employees or is embedded in an organizational culture through routines and ways of doing things. Highly skilled and talented employees are also highly mobile free agents. Therefore, their sense of identity may become more closely linked to a profession or function rather than to specific organizations; thus, such employees frequently change jobs (Nilsson, 2010a). Increased organisational

investments in individual employability and in refining talent have been considered to be tools with which an organisation can increase its competitive advantage. (Nilsson & Ellström, 2012).

#### 4. Role of Employable Talent with Organizational Success

The environment for business world and most organizations today is global, complex, dynamic, highly competitive, and extremely volatile, and is likely to remain so for years to come. In addition to these external conditions, most organizations are also facing several global challenges, including those related to talent flow and a shortage of needed competencies. Talent as a key source of competitive advantage for the twenty-first century organization (Vaiman & Vance 2008; Collings & Mellahi 2009; Vaiman, Scullion, & Collings, 2012). Thus, a company's ability to manage talent is becoming a key factor of success rendering discussions about management systems among management theorists and practitioners all over the world.

Talent is certainly critical to innovation, change and high performance, brings needed expertise and ideas to corporations which is fundamental to innovation, accepts change and is capable of learning and executing new processes. The right talent is the fundamental building block when it comes to creating an organization capable of innovating and changing and using this as a source of competitive advantage. In order for organizations to grow by keeping a profitable and sustainable competitive edge, they need to have human resources that come up with innovative and creative projects (Altınöz, Çakıroğlu & Çöp, 2013).

Talented employees should implement their aptitude successfully to meet the economic challenges, develop the quality of the workforce and to boost transformation and growth. In addition, talent management (TM) becomes one of the primary tools for human asset management that seeks to categorize and nurture skills which will be needed to achieve knowledge enhancement and building a solid base of talent resources needs new policies, regulations and environment that assist in the investment and maintenance of talents.

Finding and keeping the right people to lead a business isn't just human resource management (HRM) issue but it's a strategic challenge for the organization to continue to grow and prosper. There has been a shift from job security and lifelong employment to lifelong learning, employability, and talent management. It has become clear that the most important organizational asset, especially in knowledge-intensive organisations, is the people; the future competitiveness and prosperity of an organisation depend on its employees. If a top performer leaves the organization, it is highly likely that his or her replacement will never attain the same heights. This represents an organizational loss that is not easy to quantify, and is often not included in calculations of the financial costs of turnover.

Organization's management in knowledge aspect is important for each organization seeking to maintain a competitive advantage and successful development (Girdauskiene, 2013). Since knowledge management caters to the critical issues of organizational adaptation, survival and competence in face of increasing environmental change, therefore there is an essential need of managing know-how within the organization and to ensure that it is sustainable. Besides that, the allocation of the appropriately selected person to the appropriate position and the development and training of the relevant competence based on strategic business objectives is associated with higher productivity and a competitive advantage and is regarded as crucial to an organization's success (Collings & Mellahi, 2009; Lewis & Heckman, 2006; Tarique & Schuler, 2010).

#### 5. Conclusion

The demand for highly skilled and talented individuals in both developed and developing countries is growing, while the unemployment rate has not decreased. This talent associated with employability skills is crucial for organizational knowledge enhancement and competitive advantage as well. The resource based perspective has begun to increasingly emphasize the role that organizational knowledge can play in sustaining a firm's competitive advantage. No company is able to self-organize and maintain itself without the proper knowledge

which is in constant motion between organizations. Strategically managing intellectual capital may in fact become the most important managerial activity.

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## Conceptualizing the Impact of Green Knowledge on Attendees' Behaviour towards Sustainable Events

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### Abstract

The event industry and its related sectors have weathered much of the criticism for making a large contribution to environmental pollution. With its rapid growth over the past decade or so, the event sector is drawing attention as an increasing contributor to this global problem. Organizers of events are increasingly looking to highlight their green credentials. This research aims to explore some of the issues encompassing the management and staging of a sustainable event. It examines the importance of engaging a range of key stakeholders and considers various ways in which events are greening their operations. Sustainable event management (also known as event greening) is the process used to produce an event with particular concern for environmental, economic and social issues. Organizing events are highly resource intensive, and can have negative environmental consequences such as waste of water, energy and materials. Therefore, greening of events is critically important to ensure sustainability development in event management by making responsible decisions during planning, organization and implementation of an event. The methodology used will be a combination of quantitative and qualitative measures. The study will be using quantitative study as the main tool to obtain data. Then, it will be supported by a qualitative method to investigate further into the areas of concern. Preliminary theoretical framework leading to development of questionnaire will be based on a review of the literature. The instrument to be used in this study will be a self-administered questionnaire. The target population would be domestic and international convention attendees and exhibitors at conventions. Questionnaires will be distributed at events on specified dates to obtain the feedback from the organizers and event attendees. The framework of this research focuses on the level of green knowledge that will impact on attendees' behavior towards sustainable event. The findings of this research will help to discover an extensive knowledge on event management with the key result area of application in sustainability and green technology initiatives.

*Keywords: green knowledge, sustainable events, attendees' behavior, event management*

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### 1. Introduction

The current practice of greening events aim to reduce the negative environmental impact, and also leave a positive and lasting legacy for the local community. Fredline et al. (2003) question the long-term viability of events and suggest that events have a low probability of reoccurrence if event-specific objectives are not related to social and environmental values of the local community. Hosting an event requires great amounts of water, energy, and materials that result in waste and greenhouse gas emissions (Bergin-Seers and Mair, 2009). Many event organizers and venue managers would like to reduce their impacts on the environment. According to Getz, 1991, it involves including sustainable development principles and practices in all levels of event organization, and aims to ensure that an event is hosted responsibly. It represents the total package of interventions at an event, and needs to be done in an integrated manner (Hede, 2008). Event greening should start at the inception of the project, and should involve all the key role players, such as clients, organizers, venues, sub-contractors and suppliers.

International scholarly and industry debates are focused clearly on the issue of climate change and environmental protection. The event industry and its related sectors have weathered much of the criticism for making a large contribution to environmental pollution. With its exponential growth over the past decade or so, the event sector is drawing attention as an increasing contributor to this global problem. Currently, there is a

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paucity of academic literature which examines the relationship between events and the environment. (Chernushenko, 1994). Organisers of events are increasingly looking to highlight their green credentials.

Sustainability can be defined many ways but the basic ideas and concepts remain the same: balancing a growing economy, protection for the environment, and social responsibility, so they together lead to an improved quality of life for ourselves and future generations. Sustainability in event is just as important as any other aspect of business. From conferences to concerts, it seems like almost everyone is thinking about how to make their events more sustainable and eco-friendly. A sustainable event conserves and restores resources, honors and supports those involved, adds value to the local economy, and educates participants about the benefits of sustainability (Henderson, 2011).

Researchers in Australia have sought to develop a balanced (i.e., triple bottom line) set of event impact indicators (Sherwood et al., 2004, 2005; Sherwood, 2007) and found that economic impact assessment was inconsistent but well established, and that social and cultural event impacts were being given more and more attention, but there was still a great need for advancing environmental impact assessment. Fredline, Raybould, Jago, and Deery (2005) recommended the use of the 'event footprint' as a concept of triple-bottom line accounting. It is clear that the greatest need is for more attention to environmental outcomes, leading to better environmental management.

Events that have a sustainable or environmental theme are often funded and staged by local authorities or municipalities, with the aim of encouraging sustainable behaviour within the community. The majority of attendees are local residents, although those staged in the proximity of tourist attractions might attract a broader spectrum of visitors. These events have not received any attention in the tourism or events literature to date, despite their growing popularity and socially desirable objectives. Anecdotally, it appears that such events are most likely to attract those already engaged in sustainable behaviour. Research suggests that changing behaviour to be more environmentally friendly is a complex endeavour. Social psychological theory posits that human behaviour and behaviour change are determined both by the individual and by the external environment (Maio et al., 2007). According to Bamberg and Moser (2007), pro-environmental behaviour is characterised by a mixture of self-interest and pro-social motives. In addition, many contextual factors, such as infrastructure, facilities and availability of products may facilitate or constrain environmental behaviour, and influence individual motivations (Olander & Thøgersen, 1995).

## 2. Problem Statement

Incorporating a couple of environmentally-friendly elements does not make an event green. Anything less than an all-out effort will simply come up short in the eyes of the attendees. Of course, the feel-good benefit of going green is important enough. However, the value of going green that is communicated will determine what kind of organizer is responsible for the event. (Font, 2002). Event options with implicit green philosophies include webinars, virtual conferencing, *etc.* While it is important to follow through on environmentally-friendly event agenda, there's still a need for the event to be a success (Esquer et al 2008). Although there is no specific definition of this term in the academic literature, Mair and Jago (2010) defined 'greening' in the business events context as investment in sustainable practices and facilities such as reducing waste, increasing recycling, minimizing water use, using renewable energy sources, purchasing local produce, or implementing environmental management systems. There are suggestions and guidelines for greening events in the past. However, it is tailor-made to small events such as community carnivals and sporting games. It does not cover the whole spectrum of events and not applicable to all events.

For the past few years, several studies has been done by several researchers namely Laing and Frost 2010, and Rittichainuwat and Mair 2012 on greening an event, however, there is lack of discussion on the behaviors of event attendees in attending a green event. This is discussed by Mair and Lang 2013 that future researcher should identify the demand of attending a green event. According to this author there is lack of demand from event attendees in attending a green event if they need to pay extra cost for attending the event. Therefore, the

researchers suggested that future studies should explore this issue at other geographical area. Based on this discussion, there is an academic gap in this study. Based on the discussion above, it appears that there is a deficiency from academic and practical perspective. From the academic perspective, it shows that there is a demand for identifying the behavior of event attendees in attending a green event. From the practical perspective, there is lack of commitment from event attendees if they need to pay more. This shows that it is vital to identify and to explore the behavior of event attendees in attending a green event.

### 3. Research Objectives

1. To identify the level of green knowledge of event attendees
2. To identify the behaviors of attending a green event by event attendees
3. To develop a model on the impact of green knowledge on attendees' behavior towards sustainable events

### 4. Literature Review

#### 4.1. Green Knowledge

The growth of the global economy, over consumption and utilization of natural resources has steadily deteriorated the environment. Therefore, recognizing the seriousness of these issues, consumers are increasing their awareness towards environmental degradation and protection of the environment. The climate change which is caused by human-induced greenhouse gas emissions and fossil fuel combustion has become an important issue in the society (Rezai, Teng, Mohamed, & Shamsudin, 2013). Consumers' concern about the environment has been steadily increasing due to awareness through mass media and the rise of environmental groups activities. Hence, the steadily increasing awareness of the consumers' towards the seriousness of the environmental issues have caused the green movement, green practices and environmentalism has gained momentum in the market place and has made an increasing number of consumers to perform green behaviour (None & Kumar Datta, 2011)

Very little academic effort has so far been directed at understanding greening in the meetings, conventions, incentives, and exhibitions (MICE) industry. In other sectors of the economy, a substantial body of research has examined industrial and corporate greening (Fuchs & Mazmanian, 1998; Bansal & Roth, 2000). However, much of this early work focused on what may be considered as 'dirty' industries—automotive and petrochemical for example. In comparison, the literature on greening in the service industries is less advanced (Mair & Jago, 2010). However, a base of literature is building around greening in the hospitality industry. Examples include early work on attitudes of hotel managers to environmental management (Kirk, 1998), research into the environmental behaviour of Spanish hoteliers (Claver-Cortes, Molina-Azorin, Pereira-Moliner, & Lopez-Gamero, 2007), the differences in environmental attitudes of independent and chain hotel managers in Europe (Bohdanowicz, 2005) and reasons for going green in serviced accommodation establishments (Tzschentke, Kirk, & Lynch, 2004).

#### 4.2. Reducing Waste

The focusing question for a consideration of waste was what is the real impact of different approaches to processing and waste and how does this put consumption into context? Initially, this can be viewed from four perspectives. First, in effect, waste is the disposal of something that has/had value. After all it was purchased. Disposal often has a cost, in that you may have to pay to have it removed and then pay tax on top of that (Beer and Lemmer, 2011). An overall context has to be considered for waste. Waste is fundamentally bad in terms of damage to the environment but also erodes economic efficiency. If a caterer is wasting products that have been produced in a sustainable way then it is possible to actually negate the environmental benefit that has been accrued (Calvin, 2003). Re-cycling waste at an event makes sustainable sense but, perhaps, not if that waste creates further planet problems by being transported some way for the recycling process to happen, or, that

cheap labour is required to separate the waste causing people issues. From this, the importance of individual responsibility at the consumer side and organizational responsibility at the supply side of an event can be seen to affect the overall sustainability of an event (Laing, and Frost, 2010).

#### 4.3. Increase Recycling

One particular finding that deserves to be highlighted is the fact that not all attendees have the same perceptions and attitudes towards the idea of green meetings. Interestingly, using recycled notepad-papers from previous conferences is acceptable. This means the organizers can save a considerable sum of stationary expenses. Although anecdotally reusing notepads is a common practice, research had not previously demonstrated that this was expected, or even socially acceptable. Not surprisingly, turning off air conditioners in unoccupied meeting rooms is commonly practiced in both public and private sector to save energy during the economic downturn and also in meetings. This finding echoes much of the literature on energy use and sustainability (Resource Smart, 2012).

#### 4.4. Minimising Water Use

With only 0.007 per cent of the earth's water available for us to drink, water is fast becoming the next key issue in sustainability. The EU Framework Directive provides guidance to Member States on the protection of the integrity to their water supplies, including quality deterioration, pollution and release to water of hazardous substances. Providing jugs of tap water at an event has long been held as best practice, but that was more to do with the manufacture, disposal and transportation of the bottle, rather than concerns over global water supplies. Yet, the uptake of this simple technique has been slow, making it difficult to move beyond it and look for the next innovative approach (Musgrave, 2011a).

#### 4.5. Attendees Behavior

Research on attendee satisfaction suggests that cleanliness and maintenance of facilities, along with helpfulness and friendliness of staff were the main drivers to attend an event (Breiter & Milman, 2006). The study did not assess consumer views of sustainability measures implemented during meetings, and indeed, to the authors' knowledge, this is not an area of academic research interest at present. Further, it is important to understand and be aware of the fact that attendees are not always one homogenous group. Indeed, at many conferences those attending may be delegates, exhibitors, organisers, sponsors, and members of media. Previous research on attendees has mainly focused on delegates (e.g., Rittichainuwat et al., 2001; Severt et al., 2007; Mair, 2011), and has not examined differences in opinions or perceptions between different types of attendees.

#### 4.6. Pro-Environmental Behaviours

Pro-environmental behaviours are considerably easier to carry out than others (for example, separating waste in a household is much easier and cheaper than installing solar hot water systems or rain water tanks). Thogerson and Crompton (2009, p. 143) note that encouraging the "simple and painless" behaviours may not translate into the uptake of more significant yet more difficult pro-environmental behaviours. Not all attendees have the same perceptions and attitudes towards the idea of green meetings. One of the success factors of an event is based on the overall impression on atmosphere, therefore it seems likely that they would only rarely trade off the reduction on costs for staging a green meeting with any reduction in ambience and atmosphere.

#### 4.7. Intention towards Green Products / Services

There is evidence that consumers are growing increasingly interested in environmental issues, and are beginning to incorporate sustainability into their consumer purchase decisions (Chib et al, 2009) and into their holiday purchase decisions (Bergin-Seers & Mair, 2009; Dolnicar & Leisch, 2008). However, this research

demonstrates that consumers are still not ready to pay for sustainability. Therefore it appears to be important to consider whether consumers in the business events context (the attendees or delegates) are interested in or aware of the environmental or sustainability elements of business events. Whilst the respondents showed willingness to participate in green meetings, and they somewhat agree to trade-off their convenience with green meetings, it seems that they are not ready to pay extra for green meetings. **Cost for Sustainable Events**

For the past few years, several studies has been done by several researchers namely Laing and Frost 2010, and Rittichainuwat and Mair 2012 on greening an event, however, there is lack of discussion on the behaviors of event attendees in attending a green event. This is discussed by Rittichainuwat and Mair that future researcher should identify the demand of attending a green event. According to this author there is lack of demand from event attendees in attending a green event if they need to pay extra cost for attending the event. From an environmental perspective there are two major issues, the first being the costs and impacts of events, including making them 'greener'. There is further evidence that paying for sustainability or greening is not something that tourists (business or leisure) are particularly willing to do (Bergin-Seers & Mair, 2009).

## 5. Related Theories

- Activity Theory for Awareness

Activity Theory (AT) is a descriptive psychological frame- work helping to understand the unity of consciousness and activity. The foundation is a set of basic principles. These guiding principles include (Bannon & Bødker 1991):

- Hierarchical structure of activity: Activities (the top- most category) are composed of goal-directed actions. These actions are performed consciously. Actions, in turn, consist of non-conscious operations.
- Object-orientedness: Objective and socially or culturally defined properties. Our way of doing work is grounded in a praxis which is shared by our co-workers and determined by tradition. The way an artefact is used and the division of labour influence the design. Hence, artefacts pass on the specific praxis they are designed for.
- Mediation: Human activity is mediated by tools, lan- guage, etc. The artefacts as such are not the object of our activities, but appear already as socio-cultural entities. Continuous Development: Both the tools used and the activity itself are constantly reshaped. Tools reflect accumulated social knowledge, hence they transport social history back into the activity and to the user.
- Distinction between internal and external activities: In contrast to traditional, Activity Theory emphasises that internal mental processes cannot be properly understood when separated from external activities, that is the inter- action with the outside world.

A basic notion of Activity Theory is that the subject par- ticipating in an activity does so because he wants to achieve a certain goal. His interest is directed towards the object of an activity which he tries to use and modify to achieve an anticipated outcome. His interaction with this object is mediated by tools, creating the basic triangle of Subject, Object, and Mediating Artefact.

- The Reflexive Theory of Perception (RTP)

The Reflexive Theory of Perception (RTP) claims that perception of an object or property X by an organism Z consists in Z being caused by X to acquire some disposition D toward X itself. This broadly behavioral perceptual theory explains perceptual intentionality and correct versus incorrect, plus successful versus unsuccessful, perception in a plausible evolutionary framework. The theory also undermines cognitive and perceptual modularity assumptions, including informational or purely epistemic views of perception in that, according to the RTP, any X-caused and X-directed dispositions are genuinely perceptual—including affective,

attitudinal, and immediately activated purely action-directed behavioral dispositions. Thus the RTP has the potential to provide the foundations for a broadly behavioral counter-revolution in cognitive science (Dilworth, 2005).

- Sustainability through Game Theory

Game theory considers two types of game: zero sum and non-zero sum. A zero sum game is one in which in an interaction between actors one chooses strategies in order to obtain maximum gain; however what one actor gains the other, or others, lose. In short, the sum of what is gained and lost is zero (e.g. chess and poker). Non-zero sum games are those in which gains minus losses can be greater than zero. The goal is not to win or lose but to reach the system optimum, or one of the optima in the case of multiple transactions, where the global gain is maximised, and all of the actors win (Lozano, 2012).

### 6. Conceptual Framework

In order to conduct this study, green event awareness is served as independent variable or input which comprises of three major constructs: reducing waste, increase recycling and minimising water use. On the other hand, pro-environmental behavior and intention towards green products / services are labelled as the dependant variable. Thus in this framework, cost of sustainable events is included as a moderator between independent variable and dependent variable. Therefore, this study proposes the following framework that is illustrated in Figure 1.

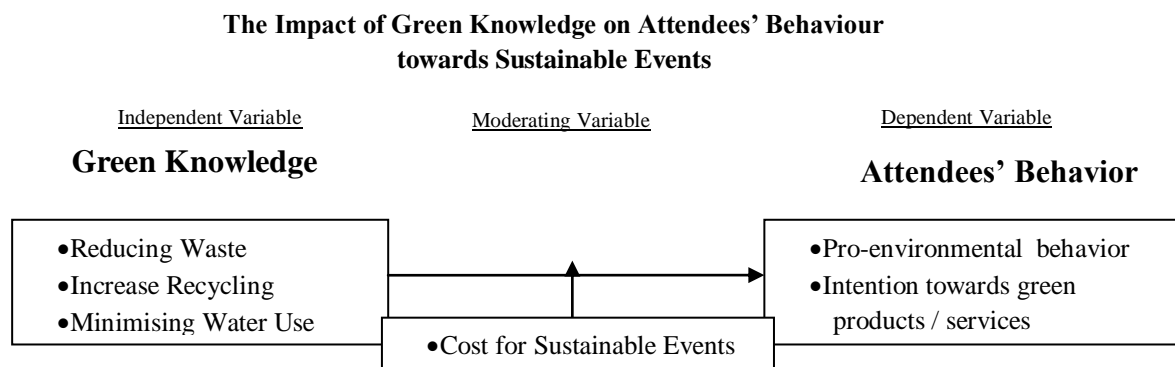


Figure 1: Proposed Conceptual Framework

### 7. Conclusion

This study will not only advance the body of knowledge within this academic field, but will also help relevant parties to develop better event management practices to improve business services that will contribute towards society transformation and increase the quality of life. Organizations should take the initiatives to encourage sustainable management in all aspects of their operation. We are mainly focusing on the area of event management. The researchers would like to observe the following initiatives during the study:

- Reducing Waste

Event organizers should try to avoid printed handouts and if it is essential, then use recycled or eco-friendly paper. The person in charge should save important documents to a USB flash drive to reduce paper use and encourage reuse instead of disposal. The research also recommends requesting recycle bins from the venue to encourage waste separation at source and reduce waste to landfill.

- Increase Recycling

Recycling programs can contribute to improved environmental awareness by reducing unnecessary waste which

harms the environment and in turn, negatively impacts global health outcomes. Recycling centers must be accessible to at events and more recycling bins need to be located at event locations and other public areas. Future large-scale media and educational campaigns should inform and promote recycling to facilitate personal, community, and societal changes.

- Minimising Water Use

The authors would also like to advise event organizers to select venues that implement water conservation practices through policies and action as well as making delegates aware of these. Logistic options should select accommodation establishments that promote water conservation policies such as towel/linen laundry policies where delegates can choose to replace or reuse the towels or linen in their rooms.

- Sustainable Events

It is in everyone's interest for all businesses, in every industry, to make environmental sustainability a management competency and an aspect of organizational excellence. By taking environmental responsibilities seriously, organizations in the event industry are uniquely positioned to communicate the value of environmental sustainability to large numbers of people. Fulfilling environmental responsibilities can help the firm gain a competitive edge and create greater value for its owners. Event managers need training on sustainability and how it applies to their daily activities. Sustainability is a difficult subject, and training is required to educate event managers on the impacts of their activities and how they can act to improve sustainability through their work. NGOs and the community can assist with training and provide case studies from businesses who have implemented successful sustainability initiatives. Following up the training with information and notes for attendees to refer back to, is important in ensuring what is learned is followed up by action.

Thus, in many ways the best way forward may be to adopt some broad form of accreditation such as organic or to develop individually branded supply chains that will give a unique selling point for the event. The benefits from having a formalized, well-articulated green strategy are certain to vary by industry and even by individual business, but early adopters can still harness the enormous potential to opportunistically position them with a sustainable green strategic advantage. It is essential to develop techniques in order to make informed decisions, but in a commercial world probably the best approach is to adopt a broad set of criteria that are likely to give environmental benefits both to the business, the consumer and broader society. This may well be difficult, particularly given that many of the benefits of green supply chains, such as decreased pollution, increase water quality or decreased production of greenhouse gasses are not effectively quantified in an economic way in the marketplace.

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# A Study on How to Attract Fresh Graduates Students for Joining Consumer Goods Company in Finance Function: A Case in Study PT. Universal

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## Abstract

In the recent time of human resource world, employer branding has become a new approach for gaining an edge in the competitive world. It refers to the process of identifying and creating a company brand message, applying traditional marketing principles to achieving the status of employer of choice (Sutherland et al., 2002). Employer branding is used not only to transfer the message of the personality of a company as an employer of choice, but it also has been used to adapt the tools and techniques usually used to motivate and engage employees (Barrow & Mosley, 2005). Like a consumer brand, it is an emotional relationship between an employer and employee. This research has purpose to formulate the adjustment strategy of employer branding in PT. Universal, as a fast moving consumer goods company in order to attract finance talents. In compiling employer branding strategy, researcher will use 12 dimensions of employer branding. And also, researcher will use talent relationship management instruments as the flow method of receiving targeted finance talent. In the last part of the research, researcher will provide recommendations such as the revised talent relationship management instruments and 12 dimensions of employer branding, thus could help the employer branding strategy formulation in PT. Universal.

*Keywords:* Employer Branding, Talent Relationship Management, Fast Moving Consumer Goods

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## 1. Introduction

Employer branding is used not only to transfer the message of the personality of a company as an employer of choice, but it also has been used to adapt the tools and techniques usually used to motivate and engage employees (Barrow & Mosley, 2005). Like a consumer brand, it is an emotional relationship between an employer and employee. As defined by Universum, "Employer branding is the strategy companies use to appeal to desired current and future ideal talent". The purpose is to make it easier for the employer to attract good workers, or even more importantly to get the top talent it needs from the job market. According to Universum, employer branding has definitely become a critical management tool. Working with over 1,200 companies and organizations worldwide, many being Fortune 500 companies, Universum can show that employer branding is a management priority. In fact, 47% of all employers say that the promotion of their employer brand will be higher this year, compared to only 6% that said lower. Maybe not yet commonplace, but it's definitely an activity that businesses are starting to adopt to stay ahead of those employers who gobble up and keep the best people for the jobs (Mossevelde, 2010).

The research created by Universum in 2013 resulting that PT. Universal as the first rank to be people preferences to work at, the problem that occur in HR still considered important to be handled. The increasing of talent acquisition compared to the effort for employer branding strategy still not balanced. The focus for talent acquisition is in PT. Universal Future Leaders Program (UFLP), the PT. Universal management trainee program. The symptoms occurred in the branding of the company especially for FMCG industries are a marketing company.

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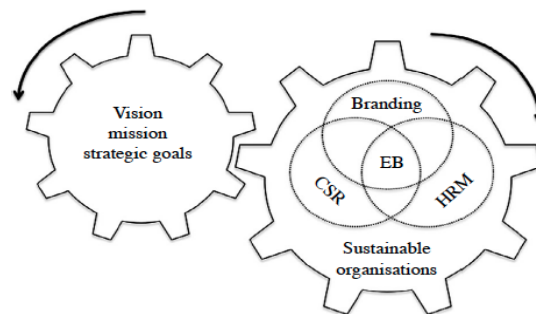
Thus, in implementing the effective employer branding strategy for targeting the finance talents should be applied. And also, the researcher can contribute to give suggestions as well as recommendations to PT. Universal to improve its employer branding strategy. Eventually, if the employer branding strategy succeeds afterwards it can be applied as guidance for strategy implementation in the rest of phases.

## 2. Literature Review

**Employer Branding** - Employer branding is the science of branding and its principles are applicable on the human resource management. The core job of employer branding is to make company attractive for the potential employees to get the maximum benefit of the market. The many authors and organizations define employer branding. Employer branding is also a unique aspect of the organization's employment offerings, which distinguishes it from other organizations (Backhaus & Tikoo, 2004). On the other hand employer branding is also as an identity of the organization as an employer (King & Grace, 2008). Similarly they described that employer branding is an image of the firm as a good place to work. The concept of employer branding is directly related to talent relationship management because talent relationship management is combination of various HR practices, which determine the future reputation of the organization as an employer of choice (Chapman et al, 2005).

**Employer Branding as Corporate Branding** - Similar to the marketing concepts, workplace branding creates two principal benefits—brand association and brand loyalty. Brand association is related to the thoughts and ideas that a brand creates in the mind of the consumer (Aaker 1991). The brand association shapes images of the employer that result in the attractiveness to potential employees (Backhaus and Tikoo 2004). Individuals have a tendency to compare the employer workplace branding on an emotional level because the values expressed are those that the individual currently possesses or wishes to acquire. The better the match, the more attracted is the individual to the organization. An individual's emotional attachment to the organization is driven by the value they derive from the total work experience which includes the satisfaction they derive from the tasks they perform, the value they feel from their colleagues and their belief in the quality, purpose, and values of the organization they represent (Barrow and Mosley, 2005).

Figure 1. Employer Branding Processes in Sustainable Organization



Strategic and sustainable employer branding processes feature three distinctive characteristics:

1. The anchoring in and supporting of the overall corporate strategy, thus being a strategic branding discipline
2. The co-creation of values, i.e. continuous renegotiation of values with stakeholders according to their stakes and expectations; and
3. The establishment of sustainable employer-employee relationships oriented towards a continuous reflection on mutual needs as well as current and future expectations.

Following this, employer brand management extracts into the processes of initiating, managing and negotiating strategic sustainable employer-employee relationships. Furthermore, the employer branding processes are influenced by the varying societal contexts facing organizations-in-society. Contexts such as societal prosperity, stability and recession underline how the employer brand is created enacted and negotiated under the influence of societal changes.

**Employer Brand Management in Employer Branding** - Employer branding involves every aspect of the employment experience. Barrow and Mosley’s employer brand mix presents the 12 controllable variables of employer branding that a company can handle in order to attract, retain, and engage the right people (Barrow & Mosley, 2007).

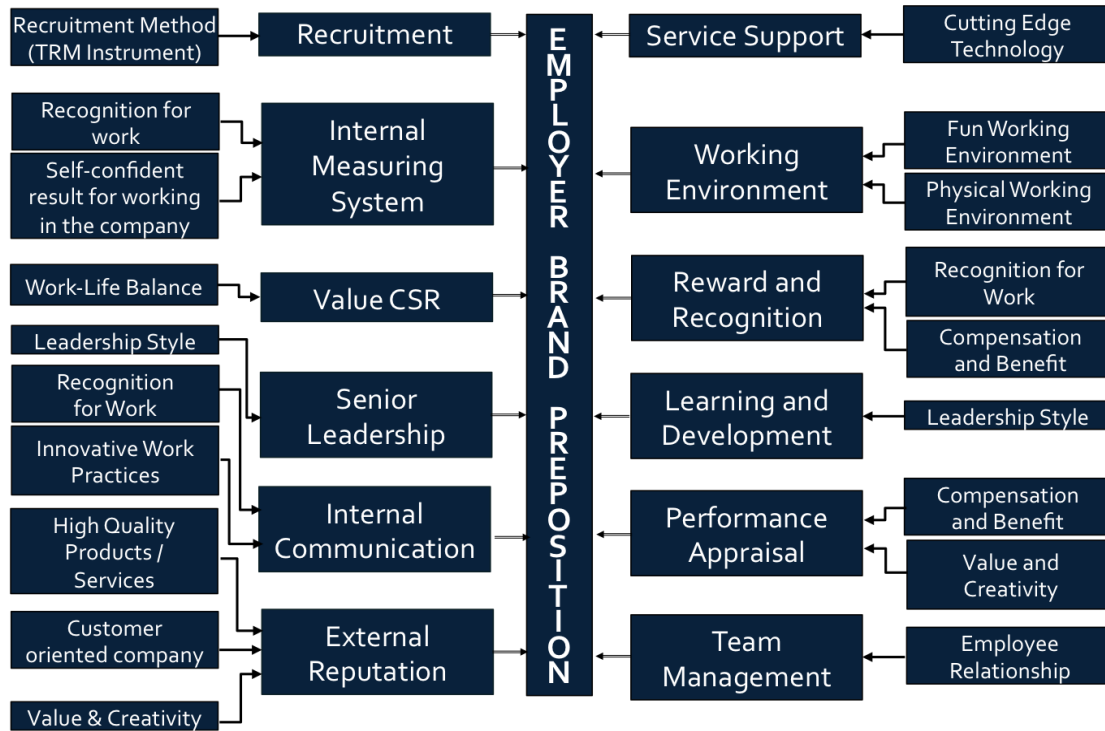


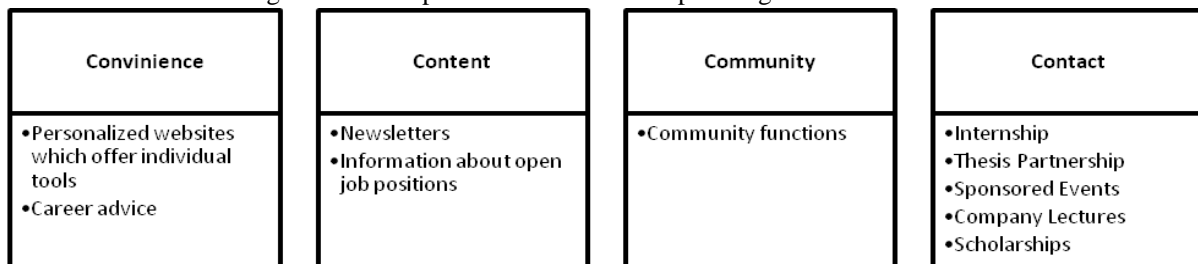
Figure 2. 12 Employer Branding Preposition

The purpose of this model is to serve as a framework for understanding and managing the key factors influencing employees’ experience the employer brand.

**Talent Relationship Management** - Aston and Morton (2005: 30) noted that there “...isn’t a single consistent or concise definition” of talent management. However, it is identified that there are three key streams of thought around the concept of talent management (Lewis & Heckman, 2006). First defines talent management as a collection of typical human resource department practices, functions, activities or specialist areas such as recruiting, selection, development, and career and succession management (Byham, 2001; Chowanec&Newstrom, 1991; Heinen& O’Neill, 2004; Hilton, 2000; Mercer, 2005; Olsen, 2000).

**Elements of Talent Relationship Management** - Talent Relationship Management instruments can be classified into four different main groups: convenience, content, community and contact (Jäger&Jäger, 2004).

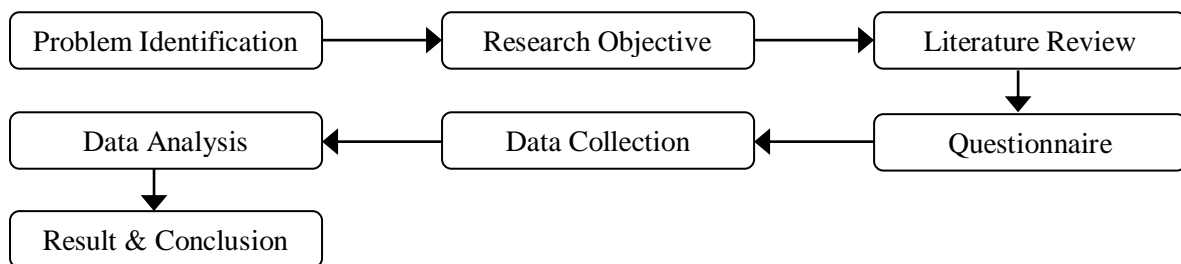
Figure 3. 4 Groups of Talent Relationship Management Instruments



As a company might be able to build a relationship with a previously rejected candidate, that specific candidate might be in another job when he or she is needed (Schweyer, 2004). However, this serves to prove that finding the right mix of Talent Relationship Management instruments is important to keep talented applicants interested in the company. As mentioned in the introduction, job-mobility is high today, and building a real and true relationship might get you the edge you need to hire talent. Furthermore, there is no data to support what instruments are most wanted by graduate students. Therefore, it is difficult for companies to apply the right instrument to a specific group.

### 3. Methodology

Figure 4. Research Methodology

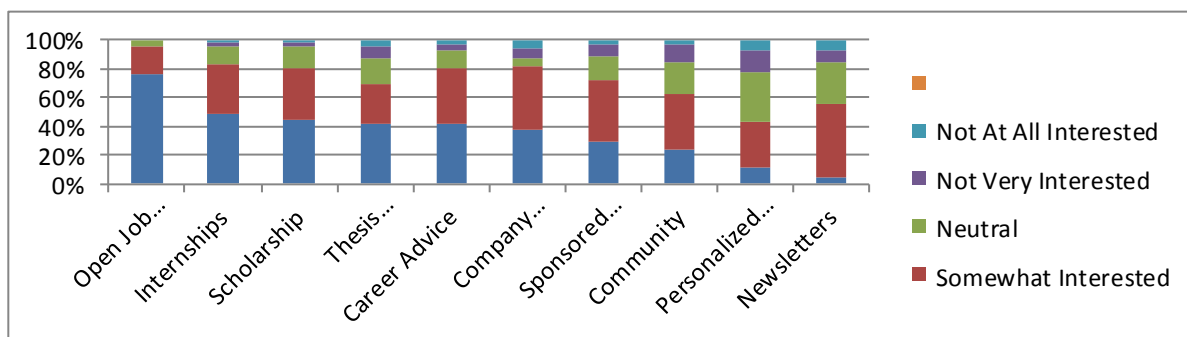


In this research, the author used the questionnaire to gather the data. The questionnaire sample obtained from 75 samples of final year accounting students in University of Indonesia. The purpose of selecting accounting students in University of Indonesia is because the most difficult great finance-related students come from this university. And also, the requirement from PT. Universal for their finance function must be qualified enough from the finance-related technical skills.

The analysis will use the frequency method as it is used to shows individual variable data, which is, included number of respondents in choosing a variable, number of option chosen, and percentages of the option chosen.

### 4. Data Collection and Analysis

Table 1. Result Question for Talent Relationship Management



The purpose of question B1-10 is to measure respondent's importance towards talent relationship management instruments. Talent management instrument is important to the applicant so they will interest to the company. It is unquestionable that information for the open job position (95%) is very critical to the candidate so they will

know the company and interested to apply. The following instrument that also important is the internship program (83%). Internship program must be challenging also providing great learning and benefit to the interns so they will acknowledge the company as the good one. And also, the third rank for the talent relationship management instrument is the scholarship (80%). Yet the least important is the newsletter about company's newest info (56%) that provided by the company.

## Employer Branding

Table 2. Drivers for Employer Choice Rank in General

Rank	Drivers for Employer Choice	Percentage (Combined for scale 5 & 4)
1	Salary	79%
2	Innovative Work Practices	65%
3	Work-Life Balances	65%
4	Job Security	62%
5	Production of High Quality Goods/Services	58%
6	Above Average Base Salary	52%
7	Individual Compensation Plans	46%
8	Health Insurance	43%
9	Physical Working Environment	35%
10	Pension Scheme	32%
11	Cutting-Edge Technology	28%

There is no question that salary is one of the main drivers with 44% of respondents ranking it as scale 5 and 35% ranking it as scale 4. It is more surprising that 65% rank innovative work practices as either scale 5 (48%) and scale 4 (17%), and 65% ranks work/life balance as scale 5 and 4, 62% ranks job security as scale 5 and 4.

## Work Environment Drivers for Employer of Choice

Table 3. Work Environment Drivers for Employer of Choice rank in general

Rank	Work Environment Drivers	Percentage (Combined for scale 5 & 4)
1	Recognition for Work	75%
2	Having a Good Relationship with Your Colleagues	72%
3	Having a Good Relationship with Your Immediate Manager	70%
4	Working for an Organization that Both Values and Makes Use of Your Creativity	66%
5	Leadership Style	63%
6	A Fun Working Environment	63%
7	Feeling More Self-Confident as a Result of Working for The Organization	61%
8	Working for an Organization that is Customer-Oriented	54%

The most important driver is 'recognition for work' (75%), second is 'having a good relationship with your colleagues (72%)', 'having a good relationship with your immediate manager' comes in third with 70%, 'Working for an organization that both values and makes use of your creativity' comes in fourth with scores

66%, the fifth most important driver is 'Leadership Style' (63%), 'a fun working environment' is also comes in same with leadership style (63%), but has a lower overall score and is therefore ranked sixth, while 'Feeling more self-confident as a result of working for the organization' comes in as number seven right behind it with 61%, and last but not least, 'Working for an organization that is customer-oriented' comes in at the very bottom as number eight with only 54%.

For the employer branding, the summary analysis for the 12 dimensions of employer branding would be:

Table 4. 12 Dimensions of Employer Branding Analysis

No.	Dimension	Analysis
1.	External Reputation	The external reputation affected from the quality of products/services, customer, and creativity of the company. The results from the research indicate that finance graduates consider external reputation at medium rate. This means external communication is not the primary needs yet still important for finance graduates.
2.	Internal Communication	The internal communication affected from recognition for work and innovative work practices. Based on the result, it shows that finance graduates really consider the internal dimension factor. Recognition for their work is considered as the critical part as well as the innovative work practices to improve their financing ability and creativity.
3.	Senior Leadership	The factors that affect senior leadership are leadership style and relationship to the immediate manager. Finance graduates consider that senior leadership as the important part as the relationship to the immediate manager has high rank.
4.	Values and CSR	The employees, are internal and important stakeholders, and can find a company, which promotes aspects of CSR such as work-life balance and diversity in order to achieve a proactive engagement with its staff more attractive. Finance graduates also really consider work-life balance as the one of most important parts in the company.
5.	Internal Measurement System	Self-confidence as result for working in the company and recognition for work affect internal measurement system based on employer branding mix theory. Finance graduates engage the internal measurement system more on the recognition for work so they will be appreciated by their work performance.
6.	Service Support	Service support is related to the technology in the company. Finance graduates consider cutting-edge technology is not really important to attract them to the company. However, a good service support still needed by the company.

Table 4 (continued). 12 Dimensions of Employer Branding Analysis

No.	Dimension	Analysis
7.	Recruitment and Induction	In the recruitment and induction, using the talent relationship management instruments as the vehicle for the recruitment. However, based on the study literature, internet recruitment is becoming increasingly important (Backhaus,



		2004).
8.	Team Management	In the team management, the relationship between employees takes great role as people create the whole company. Finance graduates really consider the team management as important parts, which reflected by the survey result.
9.	Performance Appraisal	Performance appraisal comes from the values and creativity and also compensation and benefit as the impact. Finance graduates really consider both as the main driver towards employer branding.
10.	Learning and Development	The leadership style is the factor that affects learning and development. The better the leadership style will enhance the organization development. Finance graduates consider the leadership style to enhance their development in the company.
11.	Reward and Recognition	Reward and recognition is the main driver for finance graduates. Recognition for work and compensation benefit ranked the top in the survey. That means this dimension is the most critical for finance graduates to the company employer branding
12.	Working Environment	Working environment comes from the fun working environment and the physical working environment. Both aspects are not the most important part for finance graduates because the most work will be handled in office. Yet the fun working environment still drive for finance graduates to support them in working with enjoyable environment.

### 5. Conclusion and Recommendation

This research started out with a look upon employer branding and talent relationship management to attract finance talents in PT. Universal. The empirical findings and the discussion have revealed that there are changes that can be made in order to attract highly qualified finance talents. With the proper instruments, it becomes easier to create a good program, and it can also be used to gain support from the upper management, as it provides evidence of the interest in the various instruments. The analysis of the results showed that information about open job positions was the only tool where companies actually met the expectations or wishes of the graduate students. When it comes to internships, scholarships, company lectures and career advice, it was striking how many respondents wanted those instruments.

The discussion of the various components in Barrow and Mosley's employer brand mix gave valuable insight into how finance graduate students perceive the different instruments and also what instruments they believe are most important. It is of course very important to understand, that an employer brand needs to contain the whole package. The 12 dimensions also showed that an employer brand could be built in many ways. PT. Universal can start by looking at employee satisfaction or customer satisfaction. Due to the topics of this research, it is the researchers believe that it will be most beneficial to start out with employee satisfaction and then from there build a comprehensive system which will lead to higher customer satisfaction and greater profit. And also, to create company perception to encounter the possible cause of marketing company, PT. Universal should start to create an approach to finance-related tools, such as branding the company as whole functions. Obviously, this opens up for tremendous opportunities when it comes to taking leadership in the war for talent.

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# Mapping the Knowledge to Improve Capabilities and Performance of Employees Case Study at Jupiter Department PT. Kaltim Prima Coal

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## Abstract

For technical section in Jupiter, turnover and rotation is something that often happens. Substitution can be caused due to rotation to other departments, promotion and resigned from the company. Another issue that arises is lack of rotation system, lack of transfer knowledge, lack of communication and managerial competency gap. In other hand, production section problems are heterogeneity of competence/knowledge of each supervisor, the process of adaptation in new position slowly, and gap competency in business ethic and organization commitment. From some impact of the problems that exist, knowledge must be seen as a strategic business asset. So some of things that the aim of this study are; (i) mapping the knowledge to get the overview of knowledge that has been utilize by the organization (ii) analyze the criticity of each knowledge in support in improving capabilities and employees performance. The research methodology are using knowledge mapping and gap analysis. After developing knowledge management system in Jupiter, all employees learn lessons from somebody else's mistakes and take advantages of each other's attainments. New and existing employees acquire job knowledge faster, reducing training time and providing higher job quality. Corporate knowledge management systems allow employees and departments work more efficiently, avoiding re-inventing the wheel, reducing redundant work.

*Keywords: Knowledge, Knowledge Management, Knowledge Management System, Knowledge Mapping & Gap Analysis*

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## 1. Introduction

PT. Kaltim Prima Coal operates in East Kutai, East Kalimantan. Utilize an area more than 90,000 ha, produces three quality coal types with a total resource more than 4.5 billion tons, which is marketed in the foreign and domestic markets. In general, the company's mining operation is divided into 3 stages, namely: mining preparation, mining, and post mining.

The decreasing price of coal in 2013 was still affecting the entire coal mining industry, including KPC. Our biggest challenge throughout this year was on how to maintain business profitability amidst the decreasing coal price and the increasing operational cost components, namely tools maintenance, fuel, and workforce. Both efficiency and internal process optimization became KPC's main survival strategies to maintain our sustainability throughout these challenging times. Efficiency serves not only as a strategy in facing market challenges but it becomes a part of our Good Mining Practice, which has been implemented consistently in KPC. Efficiency is implemented within viable management of production and operational costs and our commitment to the environment and local communities. We believe that efficiency; process optimization and internal capability improvement are three KPC's key ingredients in achieving healthy and solid business productivity and financial performance in order to build a strong foundation towards sustainability.

Time will change continually with the rapid development of science and technology. Humans are now in globalization period. Globalization is a time when there are no more barriers in communication, information and also limits of the state. Certainly globalization is not without consequence. Some important issues regarding

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competition in all areas involving individuals, groups, organizations, companies, and even countries are subject to competition in getting their stated objectives.

Mining sector is one of the objects in globalization era. In this sector companies are required to compete for business purposes, profits and sustainable business growth. One of success keys for the company to remain competitive in the mining industry is continuous improvement and innovation to gain competitive position. Improvement and innovation is born from all abilities and potential mobilization of the company. Knowledge management is believed be one of the companies ways to improve competitiveness by utilizing a variety of enterprise resources, including knowledge explicit or implicit (hidden). Knowledge sharing is one of the company's efforts to develop human resources and knowledge sharing among employees in order to improve their innovate ability.

Jupiter as one of departments in Mining Operations Division (MOD) is committed to meet the production plan of overburden and coal expose production. Jupiter department has a pit called Pit Pinang South. Currently the employees in the Jupiter department are around 220 employees in several parts including production, services, and technical. Jupiter is leading by a manager who oversees three superintendents.

Pinang South pit Jupiter department is one of the best mines in the PT. Kaltim Prima Coal. In order to strengthen its competitive position, Jupiter continues to develop continuous improvement and innovation, which is one of the strategy implementation. Build a knowledge management system based on commitment to developing and dissemination of knowledge. Through knowledge management is also expected to knowledge sharing so as to create a powerful synergy and can develop competence and productivity of employees.

## 2. Research Issues

Turnover and rotation engineer in technical section is something that often happens. Substitution can be caused due to rotation to other departments, promotion and resigned from the company. From the results of interviews conducted to several engineers, complain that they are subjected to confusion / difficulty while in the new position when rotation. From the interview results also showed that in its own engineering teams no discussion forums. Remarks from the interviews with technical superintendent some problems that can be underlined is; (i) lack of engineer rotation system, (ii) lack of knowledge transfer, (iii) inter-personal communication is not going well. So it is needed a system that could accommodate the existing best practices that do not disappear when there is rotation in technical.

Another problem of competency measurement performed at the end of 2013 to determine a development program in 2014, found the competency gap in some sub-areas. If percentage data of total respondents (n = 9) then; report writing and presentation, continuous improvement, developing companies, business and communication acumen has a gap of 13%. Of all the technical competency gaps in Jupiter appeared that gap they currently exist on managerial competence. For technical competence in Jupiter engineers already have their technical provisions in each of their college. So it does not happen for technical competence gap. From this it can be seen that for the level engineer at Jupiter department needs to be improved at the level of their managerial competence.

In the technical section, senior engineer for measuring competence, competency gaps that exist lies in the competence of the client focus (managerial competencies) and business ethics and organization commitment (core competencies) respectively by 13%. Client focus becomes important here as a senior engineer in charge of the engineer in the department should be able to direct their engineer on what they want the client Jupiter department.

Rotation in the production section is very necessary. From the results of survey conducted in the production section, stating that they require rotation. Rotation provides jobs benefits for employees. When compared to the technical section, the population number of production supervisors more than the population of engineers in the

technical section (the current ratio between production supervisors with engineer 3:1). So that the rotation should be done in the production section can be more. From the results of interviews with production superintendent (immediate supervisor for 3 shift superintendent) associated rotation in the production section, there are two challenges/ problems facing production section that is; (i) the heterogeneity of competence and knowledge of each supervisor, (ii) the process of adaptation in the new position slowly.

Competency measurement conducted in the end of 2013 to determine the development program in 2014, it was found that the gap away on business ethics sub competence and commitment to the organization and sub-competencies of business insight. This is contrary to what was supposed to be owned by a production supervisor. Supervisor is the leader / supervisor immediately heavy equipment operators in mining field, if they do not have the competence “commitment to the organization & business insight” and “business ethics” even then it is doubtful how they conduct oversight of the operators in the field. This gap occurs in many production supervisors Jupiter department. The emergence of this gap dominantly is due to the owned background of mining supervisor. From the survey result a mining supervisor has an educational background that is not too high. Most of them are high school graduates or equivalent. They are workers who have long been in the field since they started became operator. Because good skills and a good attitude in the workplace, they are promoted to supervisor role. The level of intelligence and the power of their analysis is not too good, it is evidenced by an IQ test conditions were quite simply average - just average (resource from HR). However, their expertise and experience needed to do the job field.

From all of the issues that exist both in technical section and in production section. Obtained a set of consequences that arise from the problems that exist, namely;

1. Confusion appears to work in technical and production when they are rotation to a new position.
2. The lack of clarity on the rotation schedule, even rotation in the production sections less when compared with the technical.
3. The process of adaptation in the new position occurs quite long due to the confusion and lack of clarity in the program and system.
4. Lack of training programs needed supervisor and engineer related competency gaps that exist in them.
5. Lack of improvement transparency improvement programs.
6. The deviation of the closeness of supervision and engineers of the company (no sense to have companies).
7. Pessimism to face ahead mining challenges.
8. Missing knowledge.

### 3. Methodology

It is essential that the design and implementation of research methodology according to the focus and nature of the study problem (Yin, 1994, Wing et al., 1998). This study uses the methodology of the research approach that can answer the research question at the beginning of the writing of this thesis. The research methodologies used are using knowledge mapping and gap analysis.

Based on the exploration of business issue, from some impact of the problems that exist in the Jupiter department, knowledge must be seen as a strategic business asset. Required knowledge management efforts in order to encourage the development of the organization, this includes:

- a) Ensure that employees have knowledge stored in the organization
- b) Using KM to meet organizational goals
- c) Using KM for efficiency in the process of mining operations

The author proposed Jupiter department to make Process-Based Knowledge Map. The author choose Process-Based Knowledge Map because its main advantages are help identify the knowledge that critical for PT. Kaltim Prima Coal business process and provides pointers to locate the critical knowledge. These advantages will help Jupiter Department employee to improve their Knowledge Management System (KMS).

The Process-Based Knowledge Map for Jupiter is developed based on R.I. Ricciardi and Antonio Barroso's knowledge map methodology for Knowledge Map project in Instituto de Pesquisas Energeticas Nucleares (2004) that consists of five steps (see Figure 1).

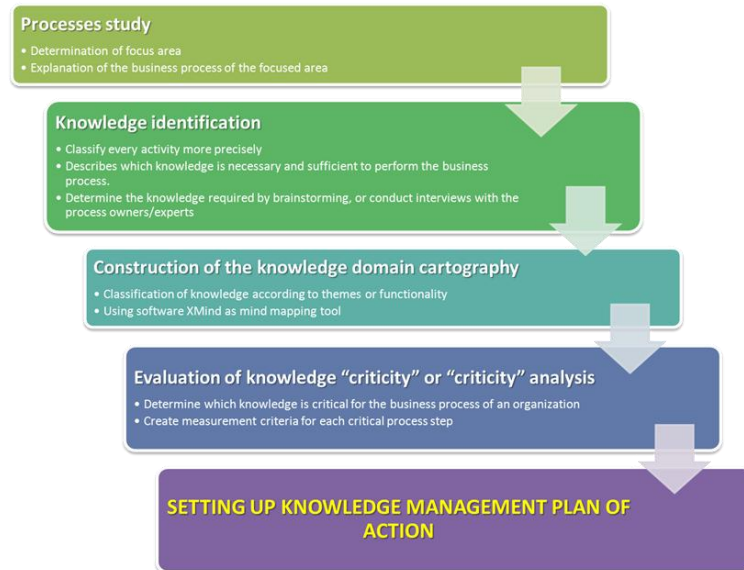


Figure 1. Flowchart Knowledge Mapping

The first step in knowledge mapping is processes study. This step consists of two sub steps, such as determination of focus area and explanation of the business process of the focused area.

Focus area in this step is production section and technical section. Both areas have been the focus because these areas have been research issue in this paper. After determining the focus area at this step, followed by a search for a business process in each section/focus area.

Once the main processes were understood, a discussion with the experts of the processes conducted. This step helped to classify every activity more precisely, and describes which knowledge is necessary and sufficient to perform the business process. The discussion with the experts is directed to answer key questions, i.e.: where does the knowledge come from; who owns it; what knowledge, tools, and templates that exist; and what barriers or issues exist. The answer for those questions is represented in the form of Process-Based Knowledge Mapping Matrix, a matrix which contains list of business processes of an organization/department within the organization, what knowledge is needed to perform the business processes, who has the knowledge, who needs the knowledge, where is the location of the knowledge or the location of the people who owns it, is the knowledge tacit or explicit, is the knowledge performed routine or non-routine, and what issues exist in the business processes.

Knowledge domain cartography is the graphical representation of where the knowledge assets of an organization exist (Ricciardi and Barroso-2004). Knowledge domain cartography is attempted to represent the organizational knowledge in a way that produces both visually friendly and accurate representation. "Domain" refers to the classification of knowledge according to themes or functionality. The construction of the cartography starts with a central node that followed by out flowing axes which finally will point out the knowledge. In this research, the author using software XMind as mind mapping tool to represent knowledge domain cartography of Pit Operation and Technical business process.

The evaluation of knowledge “criticality” or “criticality” analysis is a method to determine which knowledge is critical for the business process of an organization. This step aims to assess the relevance of each knowledge according to objectives and goals of the organization and its respective degree of vulnerability.

The “criticality” analysis result in Appendix A shows that in Pit Operation business process, there are 60% (58 out of 96) knowledge that are critical for the business process of Operation section. In Appendix D also shows that in pit Technical business process, there is 74% (50 out of 68) knowledge that are critical for the business process of Technical section. The “criticality” analysis result indicates that:

- a) The knowledge of pit operation and pit technical business process are used in day to day activities of Jupiter department in vast amount.
- b) The knowledge in pit operation and pit technical business process has important contribution towards the achievement of the company’s strategic goals.
- c) Knowledge between Pit Operation and Pit Technical need a well collaboration to support department goal and target.
- d) Pit Operational knowledge’s that 53% critical are still in the form of tacit knowledge. The tacit knowledge among them is people management, monitoring techniques, decision making and much more.
- e) Pit Technical knowledge’s that 48% critical are still in the form of tacit knowledge. The tacit knowledge among them are budgeting, planning develop analyze and select the option, drainage design and much more.
- f) Pit operation business process that is seen that in the process equipment usage & availability all critical knowledge in the sub business process is still a tacit knowledge of them; man power management, equipment effectiveness, manage and monitor improvement project, unscheduled and scheduled maintenance monitoring, and feedback system. Surely it takes an initiative that is able to make it as explicit knowledge.

Examples of knowledge identification, cartography and “criticality” analysis can be seen in Appendix A.

Knowledge gap analysis was performed to assess the knowledge and expertise of by companies today, as well as identifying areas that are considered strong or need to repair. Analyses were performed with charge current levels and the level of need (Society for Marketing Professional services, 1999). Charging is done by giving value at current mastery level and the level of interest. The scale used is the ordinal scale 1-5. After questionnaires collected, the data is processed by calculating the average level interests and the average level of mastery of the knowledge needed by employees. Primary data were obtained from questionnaires given to respondents described the assessment of the level of knowledge that exists in the company. Gaps in knowledge obtained from the difference in numbers mastery today with numbers on the interests of each variable area of critical dimensions of knowledge. Assessment of needs and current using a scale of 1 to 5 and knowledge gaps for each variable is obtained by calculating the average gap of respondents.

Knowledge assets owned by Jupiter divided into four categories: experiential knowledge, conceptual knowledge assets, systemic knowledge assets and routine knowledge assets. The employee agrees to knowledge assets owned by Jupiter with an average score of the average of 3.73.

The results processing data to the source of knowledge, Jupiter has an average score value of 3.80. This shows that the respondents agree with the way to get knowledge. Sources of knowledge in Jupiter consist of three sources, namely employee competencies, internal structures and external structures.

By doing a knowledge gap assessment process it is known circumstances required knowledge and knowledge is now available. To get the value of the knowledge gaps needed two things, namely the level of interest and the level of knowledge mastery. The level of interest shows how important it is for a company's knowledge, while the level of mastery shows the extent to which employees are able to master the knowledge. After getting the value of the interest rate and the level of knowledge mastery, k-gap value can be determined premises calculate the difference between the interest rate levels of mastery. The smaller difference between the interest rate, the

smaller level of mastery is also the knowledge gaps. Large difference indicates the company is not able to manage knowledge well.

There is a knowledge gap in Jupiter department, which is in pit operation and pit technical. Gaps indicated by the difference between the interest rate levels of mastery of knowledge with knowledge.

#### 4. Result and Discussion

With an in-depth understanding of the problems, issues and needs within the organization, it is then possible to meaningfully determine appropriate strategies for addressing them. This will undoubtedly include a range of both strategic (long-term) and tactical (short-term) initiatives. Depending on the issues identified, we will build knowledge management strategy steps these include:

- 1) Enabling Infrastructure
  - a) Improving the corporate intranet, implementing new learning approaches, including e-learning, building a technology platform, discussion databases - *Knowledge Portal Jupiter*
  - b) Good relationship between employees – *Daily Meeting, Weekly Meeting, Monthly Meeting, Communication Session quarterly*
- 2) Knowledge Sharing
  - a) Formalizing communities of practice – *Jupiter Forum*
  - b) Implementing coaching and mentoring programs – *Performance Dialogue (Feedback and Coaching) Program*
  - c) Improving document and records management, facilitating skills transfer from retiring staff, capturing staff knowledge in a documented form – *Knowledge Team*
  - d) Improving policies and procedures – *Standard Operational Procedure of Knowledge management*
  - e) Formalizing the role of ‘knowledge brokers’ within the department
- 3) Knowledge Outfitting
  - a) Meta-knowledge – *Training Class*
  - b) Thought Leadership – *Knowledge Sponsor & Knowledge Champion*
  - c) Video presentation of performing and describing the critical points of activities – *Best Practice Video*
- 4) Smart Workplace
  - a) Integrated performance support – *Performance measure (Performance Management System & Balanced Scorecard)*
  - b) Job tools are knowledge tools – *Periodic Rotation Program, comparative study “Continuous Learning” – Periodic Knowledge Workshop*

#### 5. Result and Discussion

At the end after developing knowledge management system in Jupiter department, all employees can learn from somebody else’s mistakes and take advantages of each other’s attainments. New and existing employees acquire job knowledge faster, reducing training time and providing higher job quality. Corporate knowledge management systems allow employees and departments work more efficiently, avoiding re-inventing the wheel, and reducing redundant work.



APPENDIX A

**Manning Availability**

**Knowledge Identification - Pit Operation Business Process**

Sub-business process	What Knowledge is needed?	Who has it?	Who needs it?	Where is it?	Is it tacit or explicit	Is it routine or non routine?	What issues does it address
Crew Composition	<ul style="list-style-type: none"> <li>Interpersonal relationship</li> <li><b>People Management</b></li> <li><b>Monitoring techniques</b></li> <li>written and oral communication</li> <li>decision making</li> <li><b>Assertiveness.</b></li> </ul>	<ul style="list-style-type: none"> <li>Shift supt.</li> <li>Supervisor</li> </ul>	Production Crew	Individual	Tacit	Routine	<ul style="list-style-type: none"> <li>Conditions of excess carrier crew</li> <li>Crew transfer across departments</li> </ul>
Manning Ratio Management	<ul style="list-style-type: none"> <li>MR Calculation</li> <li>Unit requirement</li> <li><b>Manning requirement</b></li> </ul>	<ul style="list-style-type: none"> <li>Shift supt.</li> <li>Supervisor</li> </ul>	Production Crew	<ul style="list-style-type: none"> <li>Implementation Guideline</li> <li>SOP</li> <li>SOP</li> </ul>	Explicit	Routine	Conditions of excess carrier crew
Training Management	<ul style="list-style-type: none"> <li>Matrix training</li> <li>Training requirement</li> <li><b>Arrange necessary training</b></li> </ul>	<ul style="list-style-type: none"> <li>Shift supt.</li> <li>Supervisor</li> </ul>	Production Crew	<ul style="list-style-type: none"> <li>Training History</li> <li>L&amp;D department</li> <li>L&amp;D department</li> </ul>	Explicit	Routine	Schedule training to work 12-hour roster

**Manage Operation Cycle Time**

**Knowledge Identification - Pit Operation Business Process**

Sub-business process	What Knowledge is needed?	Who has it?	Who needs it?	Where is it?	Is it tacit or explicit	Is it routine or non routine?	What issues does it address
Pit Traffic Management	<ul style="list-style-type: none"> <li>Communication</li> <li><b>Pit Traffic rules</b></li> <li>Junction management</li> <li>Decision making</li> </ul>	<ul style="list-style-type: none"> <li>Supervisor</li> <li>Shift Supt.</li> </ul>	Production	<ul style="list-style-type: none"> <li>Individual</li> <li>SOP</li> <li>Individual</li> <li>Individual</li> </ul>	<ul style="list-style-type: none"> <li>Tacit</li> <li>Explicit</li> <li>Tacit</li> <li>Tacit</li> </ul>	Routine	-
Pit Road construction and maintenance	<ul style="list-style-type: none"> <li>Communication</li> <li><b>Haul Road manual and guideline</b></li> <li><b>Road maintenance improvement project (MACAN MOD &amp; Cycle Time)</b></li> <li>Equipment Allocation</li> <li>Time management</li> <li>Pit Road Inspection</li> </ul>	<ul style="list-style-type: none"> <li>Supervisor</li> <li>Shift Supt.</li> </ul>	Production	<ul style="list-style-type: none"> <li>Individual</li> <li>SOP</li> <li>Improvement guideline</li> <li>Individual</li> <li>Individual</li> <li>Individual</li> </ul>	<ul style="list-style-type: none"> <li>Tacit</li> <li>Explicit</li> <li>Explicit</li> <li>Tacit</li> <li>Tacit</li> <li>Tacit</li> </ul>	Routine	-

**Workable Pit  
Operation Planning**

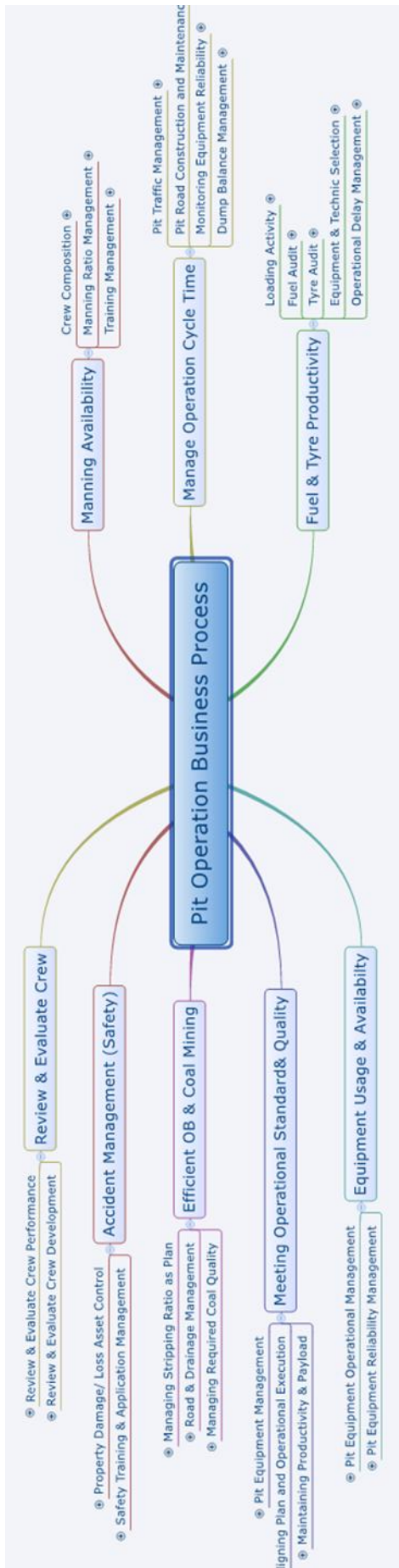
**Knowledge Identification - Pit Technical Business Process**

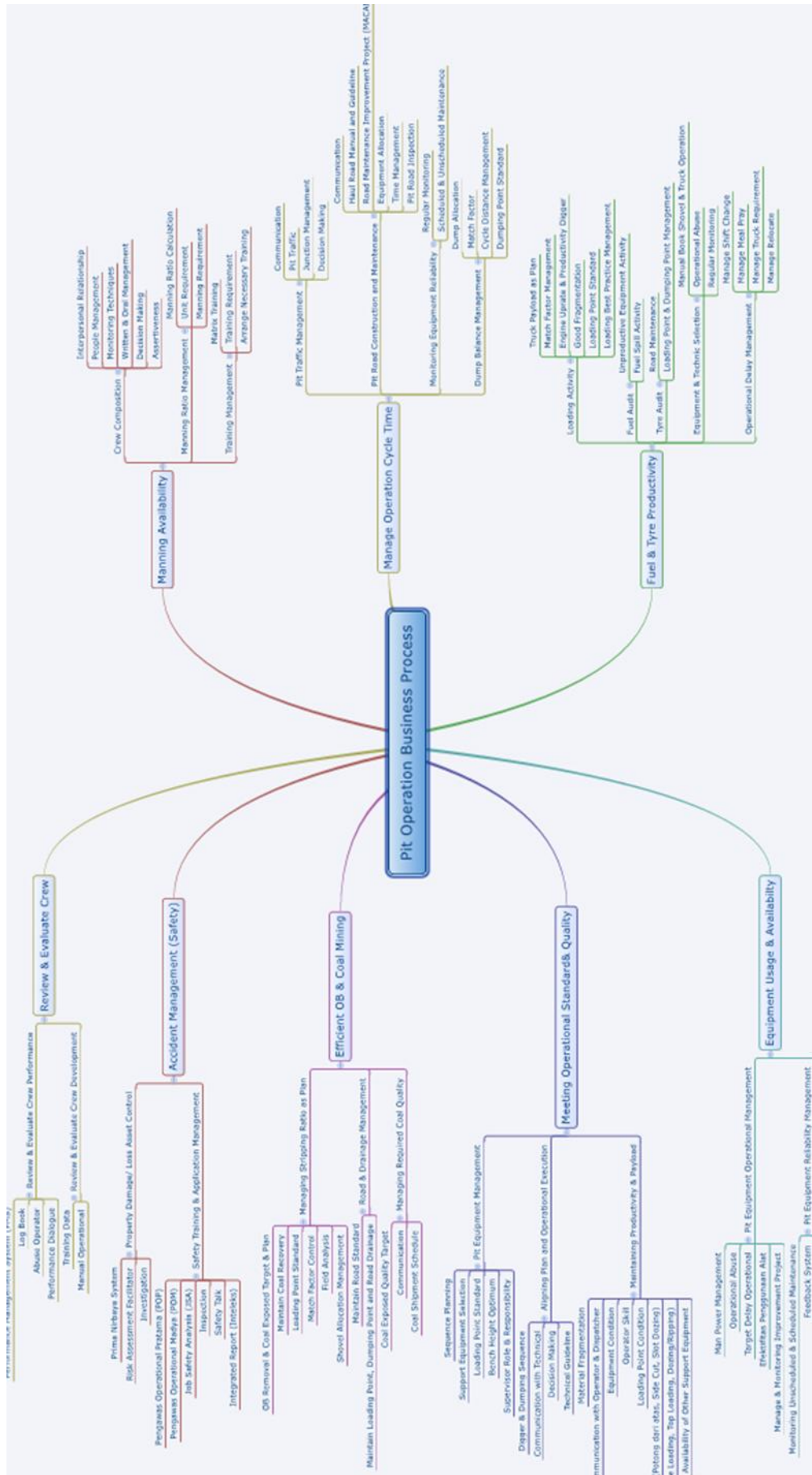
Sub-business process	What Knowledge is needed?	Who has it?	Who needs it?	Where is it?	Is it tacit or explicit	Is it routine or non routine?	What issues does it address
Workable daily, weekly, monthly & yearly plan	<ul style="list-style-type: none"> <li>Daily shovel &amp; Dump allocation plan</li> <li>Reserving</li> <li>Scheduling</li> <li>Budgeting</li> <li>8wk rolling plan</li> <li>Drill &amp; Blast schedule plan</li> <li>Broken Stock reconcile</li> <li>Develop planning, Analyze &amp; Select options</li> </ul>	<ul style="list-style-type: none"> <li>Short-term</li> <li>Midterm</li> </ul>	<ul style="list-style-type: none"> <li>Production</li> <li>Technical</li> </ul>	<ul style="list-style-type: none"> <li>Daily Meeting report (Log Book)</li> <li>SOP</li> <li>SOP</li> <li>Individual</li> <li>SOP</li> <li>SOP</li> <li>Individual</li> <li>Individual</li> </ul>	<ul style="list-style-type: none"> <li>Explicit</li> <li>Explicit</li> <li>Explicit</li> <li>Tacit</li> <li>Explicit</li> <li>Explicit</li> <li>Tacit</li> <li>Tacit</li> </ul>	Routine	-
Pit & Dump Design	<ul style="list-style-type: none"> <li>Model OPD</li> <li>Boundary Pit &amp; Dump Design</li> <li>Pit Strips</li> <li>Pit Blocks</li> <li>Crest &amp; Toe</li> <li>Slope</li> <li>Drainage design</li> <li>PAF &amp; NAF Allocation</li> <li>DDR Plan</li> </ul>	<ul style="list-style-type: none"> <li>Midterm</li> <li>Short-term</li> </ul>	<ul style="list-style-type: none"> <li>Production</li> <li>Technical</li> </ul>	<ul style="list-style-type: none"> <li>SOP</li> <li>SOP</li> <li>SOP</li> <li>SOP</li> <li>SOP</li> <li>SOP</li> <li>Individual</li> <li>Individual</li> <li>Individual</li> </ul>	<ul style="list-style-type: none"> <li>Explicit</li> <li>Explicit</li> <li>Explicit</li> <li>Explicit</li> <li>Explicit</li> <li>Explicit</li> <li>Explicit</li> <li>Tacit</li> <li>Tacit</li> <li>Tacit</li> </ul>	Routine	-

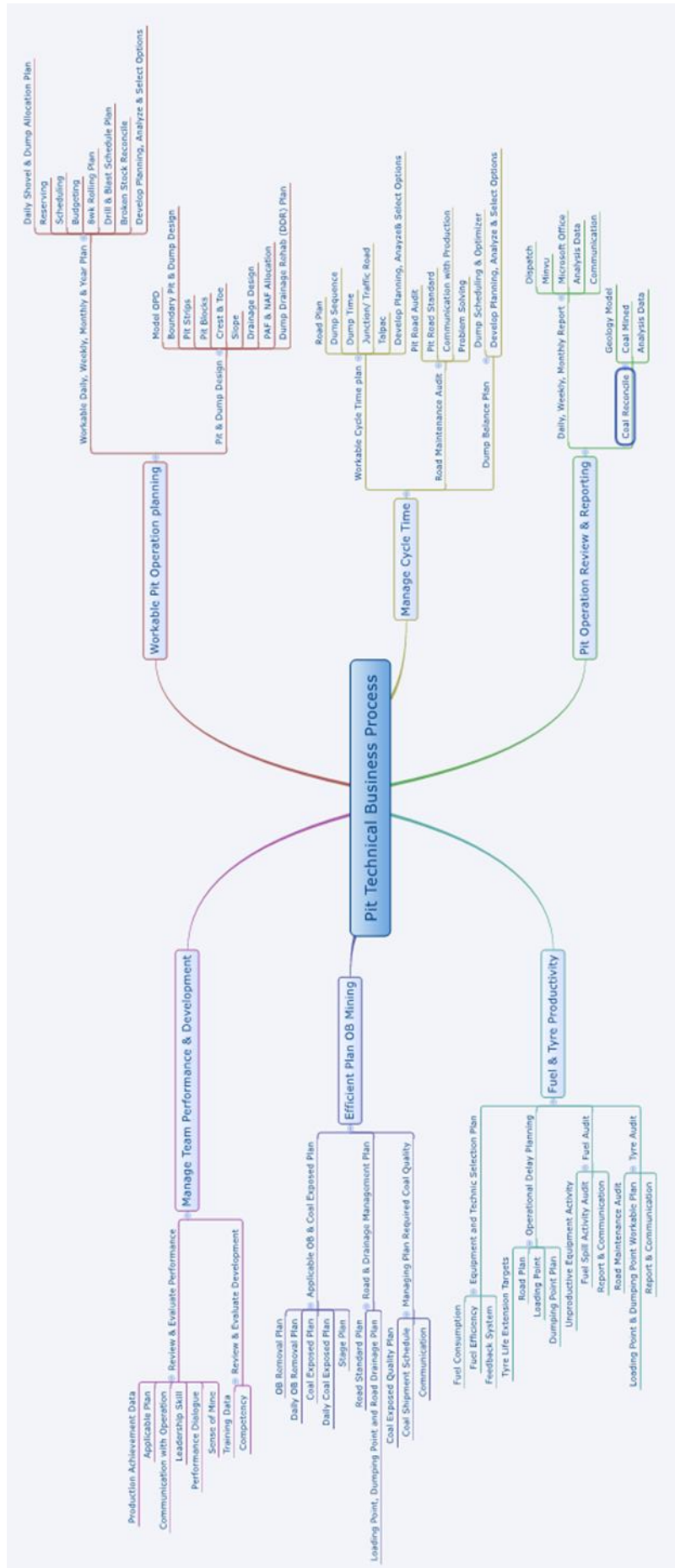
**Fuel & Tyre  
Productivity**

**Knowledge Identification - Pit Technical Business Process**

Sub-business process	What Knowledge is needed?	Who has it?	Who needs it?	Where is it?	Is it tacit or explicit	Is it routine or non routine?	What issues does it address
Equipment and technic selection Plan	<ul style="list-style-type: none"> <li>Fuel consumption</li> <li>fuel efficiency</li> <li>Feedback system</li> </ul>	<ul style="list-style-type: none"> <li>Supervisor</li> <li>Technical</li> </ul>	Production Crew	Technical Report	Explicit	Non routine	Fuel Ratio Report sometimes not updated
Operational Delay Planning	<ul style="list-style-type: none"> <li>Tyre life extension targets</li> <li>road plan</li> <li>Loading Point plan</li> <li>Dumping Point plan</li> </ul>	<ul style="list-style-type: none"> <li>Technical</li> </ul>	Production Crew	Report	Explicit	Routine	-
Fuel audit	<ul style="list-style-type: none"> <li>Unproductive equipment activity</li> <li>Fuel Spill activity audit</li> <li>Report &amp; Communication</li> </ul>	<ul style="list-style-type: none"> <li>Supervisor</li> <li>Specialist Tyre Environment Auditor (STEA)</li> <li>Technical &amp; STEA</li> </ul>	Production	<ul style="list-style-type: none"> <li>Individual</li> <li>STEA Report</li> <li>Individual</li> </ul>	<ul style="list-style-type: none"> <li>Tacit</li> <li>Explicit</li> <li>Tacit</li> </ul>	Routine	Fuel Cost as a highest contributing to operational cost
Tyre audit	<ul style="list-style-type: none"> <li>Road Maintenance audit</li> <li>Loading Point &amp; Dumping Point workable plan</li> <li>Report &amp; Communication</li> </ul>	<ul style="list-style-type: none"> <li>Supervisor &amp; Technical</li> <li>Technical</li> <li>Technical</li> </ul>	Production	<ul style="list-style-type: none"> <li>MACAN Dashboard</li> <li>Daily Log Book</li> <li>Tacit</li> </ul>	<ul style="list-style-type: none"> <li>Explicit</li> <li>Explicit</li> <li>Tacit</li> </ul>	Routine	-

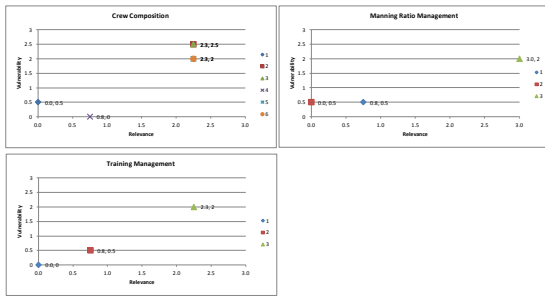




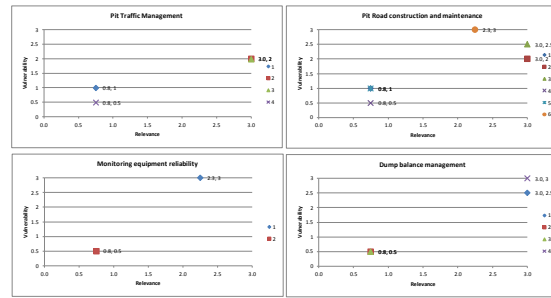




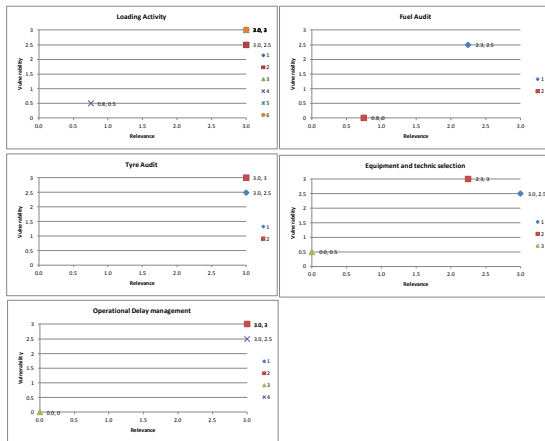
## 1. MANNING AVAILABILITY



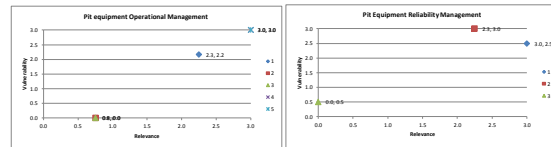
## 2. MANAGE OPERATION CYCLE TIME



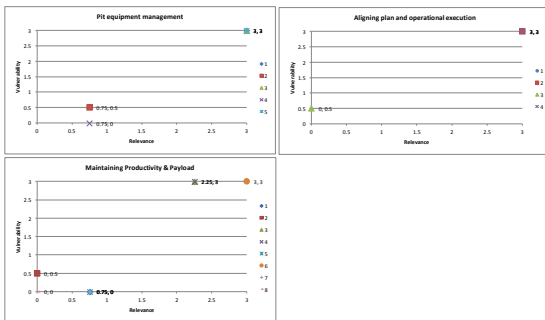
## 3. FUEL & TYRE PRODUCTIVITY



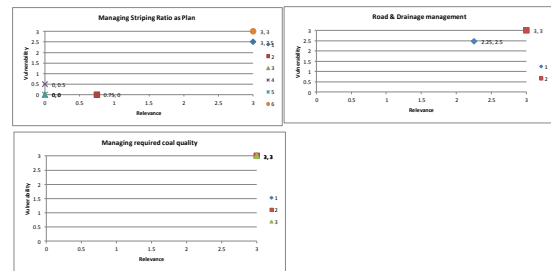
## 4. EQUIPMENT USAGE & AVAILABILITY



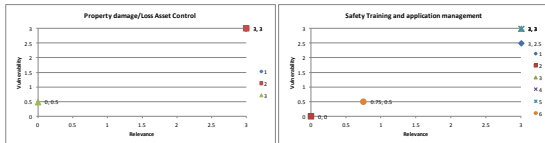
## 5. MEETING OPERATIONAL STANDARD & QUALITY



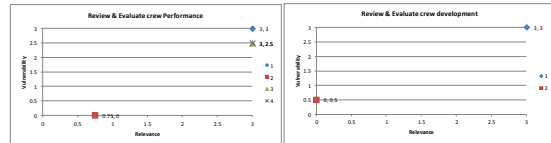
## 6. EFFICIENT OR & COAL MINING



## 7. ACCIDENT MANAGEMENT (SAFETY)



## 8. REVIEW & EVALUATE CREW









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# Community Vitality: An Exploratory Study of the Indigenous Community in Malaysia

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## Abstract

The goal of this exploratory study is to discuss alternative indicators of “community vitality” and its component parts for the rural communities especially in the context of Indigenous community. Indigenous community is one of a vulnerable community in Malaysia by the current development trend and modernization of country. To this end, the paper presents and discusses different definitions of community vitality and its important indicators that can be used to measure community vitality among Indigenous peoples. Besides, the factors influencing community vitality also given the greater emphasis in this study as well as to increase the performance of vitality among Indigenous community even though, they are still practicing the traditional way of cultures.

*Keywords:* Indigenous community, indicators of vitality, community vitality;

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## 1. Introduction

Indigenous community is a minor community living in the Peninsular of Malaysia. The majority of them live in the rural area especially within forest area and generally, they still practice a way of life which is heavily influenced by traditional natural and cultures from generation passed. The indigenous peoples are very unique from other community in Malaysia in terms of personality, anthropometric character, and also community capital. Overall, there are almost 18 tribes of Indigenous people in Peninsular Malaysia where they are categorized into three main groups, Negrito (*Semang*), Senoi and Proto-Malay (*Melayu Asli*) as their main languages differed from tribe others. They earn a living by farming, hunting and searching for wild plants (Raymond, 2010). As they live a nomadic way, they move from area to area, using natural shelters such as caves and trees and subsisting on roots, jungle fruits as well as hunting and fishing for their livelihood. In order to prevent depopulation and ensure the wellbeing of Indigenous peoples in Malaysia, maintaining and boosting community vitality is one of the main concerns for this study.

Motivated by a concern for the community vitality among Indigenous peoples, the purpose of this study is to determine the important indicators of community vitality and the factors influencing the community vitality as well as to sustain and increase the development of human capital among Indigenous peoples in Malaysia by reviewed some literatures on community vitality.

According to Katherine (2010), the definition of community vitality stated is:

*“Vital communities are characterized by strong, active and inclusive relationships between residents, private sector, public sector and civil society organizations that work to foster individual and collective wellbeing. Vital communities are those that are able to cultivate and marshal these relationships in order to create, adapt and thrive in the changing world and thus improve wellbeing of citizens”.*

The capacity to thrive and change in the pursuit of individual and social wellbeing is an emphasis on understanding the definition of vitality, which in a ways that are inclusive and respectful of the needs and

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aspirations of diverse communities. Dale et al. (2010) simply defined “community vitality” is one community that can thrive in the face of change. It is a place that can sustain at its core a functional community without loss to social, ecological, and economic capitals in the long term of period, whatever occurs as a result of exogenous changes beyond its control. On the other hand, the important thing is a place where human systems work with rather than against natural systems and processes. In addition, community vitality is a broad concept that hints at the community potential to overcome possible problems and also to function as relatively independent entities that survive without substantial external support (Eric, 2011). It is related to the sustainability and liveability especially in the context of Indigenous community in Malaysia.

Community vitality can refer to concrete measures of economic performance, such as average income, employment and unemployment rate, availability of jobs and others for the sustainability of residents without any difficulties on trend changes. Besides, community vitality can also refer to the age composition of the population and the skill level. Access to basic facilities is also an important sign of community vitality. For the wellbeing of its community or peoples, it is important for a settlement to have easy access to education and medical facilities, as well as retail and cultural facilities. Therefore, the conclusion would be that the indicator of community vitality is not directly measurable, and that it describes many aspects of life towards sustainability and development of community. This study has been carried out in order to flesh out the community vitality and also to serve as a starting point for further exploration of the concept of community vitality by discussed the potential indicators of community vitality among Indigenous peoples in Malaysia.

## 2. Community Vitality

This part will present how other researchers measure community vitality, and intuitively explain how these variables are correlated with community vitality among Indigenous peoples in Malaysia. Selecting variables to describe the many aspects of community vitality is important in order to evaluate its performance over time. While some authors focus mainly on describing community vitality, others want to explain through statistical analysis what factors influence the indicators of community vitality. In the context of Indigenous community, there are many aspects of community vitality that can be discussed in order to sustain the development of human capital. Furthermore, there are indicators of community vitality that are very hard to measure, such as the social cohesion within a community, or how strong the cultural heritage of the place is. The next part of the chapter presents some of the indicators of community vitality used among Indigenous peoples that acts as a cornerstone of sustainable development and suggests some courses for future research.

### 2.1. Indicators of Community Vitality

Indigenous community in Malaysia commonly lived at rural area and marginalized from urban area. There are many indicators of Indigenous community vitality can be measured in order to improve community initiative, responsibility and adaptability as well as increased use of the skills, knowledge and ability of Indigenous peoples. One of the most often used measures of community vitality is population growth. Generally, a positive population growth indicates the area has some characteristics that make it an appropriate place to live for a community. According to the Copus and Crabtree (1996), the peoples that emigrates especially the young or the skilled have been concerned as well as to sustain the segment of the population in the rural areas. Other than changes in population, the important indicator for rural vitality that also considered is the age structure of communities. McGranahan (2008) explains that a large share of youth in the population indicates a vital area. Basically, the people aged over 64 are associated with more vital areas, because of retired period they will choose areas that provide high amenity levels such as beautiful landscapes, calm places and low crime rates. On the other hand, the segment of the population aged over 64 is less dynamic because they does not participate in the work force and is related with lower levels of vitality.

Furthermore, there are also indicators for the community vitality in term of social vitality which is community leadership and sense of cohesion. Explained by Cook et al. (2009), community vitality can be measured according to its residents by means of a survey that asks respondents to rate community vitality numerically. In addition, the valuations of community leadership and sense of cohesion have been collected through the survey.

They find that leadership is the most important indicator of community vitality and the community vitality increased as a leader cooperate on local projects successfully. Besides, a strong social network and a sense of community have a positive impact on vitality. Generally, Indigenous community in Malaysia practiced a traditional culture and every tribe of communities have different languages. The ability to speak in minor languages can increase the level of skill among Indigenous community. Copus and Crabtree (1996) consider the cultural aspects of a settlement also an important part of community vitality. Based on their study, it can be concluded that the importance of minority languages such as Gaelic is positively correlated with the sustainability (vitality) of an area.

The availability of facilities is one of the important indicators of community vitality. In particular, the availability of facilities such as retail facilities, schools, catering establishments, basic medical services, banks and posts has been looked by Koomen (2011). The level of facility is used to measure the community vitality in the rural areas which is a reduction in the number of basic facilities means it is harder to reach them, and more difficult to make use of them. Consequently, if the availability of basic facilities such as school and clinic are limited, this is prejudicial to community vitality, especially towards the sustainability and development of the community. In addition, economic activity also is an important indicator of community vitality as to increase the socio-economic development of the community that lived in rural areas. As mentioned earlier, Indigenous community lived in rural areas and also lived in poverty. Economic activity plays an important role for a living although, they have received an attention and assistance from the government policy. Holland et al. (2009) measure rural vitality in terms of economic performance and the distance from urban areas also affected the economic performance of rural vitality. Last but not least, Kilkenny (2010) suggests more measures of rural vitality in terms of economic performance such as property values, rural incomes and housing vacancy rates. Based on this study, property values and incomes are lower, while housing vacancy rates are higher as the county population size decreases.

## 2. 2. Factors Influencing Community Vitality

This subsection will be discussed in detail about the factors that influence community vitality. The study on the community vitality is generally describes the performance of community vitality over time based on a number of selected indicators. Exploratory study is more focused on what influences indicators of community vitality from the previous studied. There are several indicators of community vitality are selected as dependent variables. Most often these indicators reflect changes in population, availability of jobs, employment rates or average income. This subsection gives an overview of the variables that are typically used to explain changes in population and changes in measures of economic performance for the community vitality for rural areas.

### 2. 2. 1. Demography

Demography is one of the factors that influencing the community vitality. From the previous studies, indicates that demography affects the community vitality in term of population density. From the previous studied by Copus and Crabtree (1996), indicate that a low population density has a negative effect on social and economic development, because it reduces opportunities for interaction between people and between companies or employers, as well as adding the cost of service provision, industrial inputs, and marketing of goods. Besides, according to their research, population density is also inversely correlated with the distance of large economic centre. The negative economic performance of rural areas is due to the areas with low population density which far away from urban economic centre.

Furthermore, the skill level of the population is also important and is positively correlated with the development of socio-economic. The community that has the higher education level give positive impact toward the development and sustainability of community vitality. The skill level of the population is the main determinant of earnings per worker (Agarwal and Errington, 2009). Based on their explanation, the low level of education is the main reason for low productivity in some rural areas in the United State. As a result, the investment in

education for rural residents of all ages is one of the best options for increasing community vitality in rural areas especially for the Indigenous peoples.

### 2. 2. 2. *Economic Structure and Performance*

There is broad identification among previous authors that the level of local economy is central to the perception of community vitality. Economic development within the public, private and non-profit sectors can build the capacity of communities. Thus, economic performance is the important factor that influencing community vitality. Copus and Crabtree (1996) look at the level of dependence on the primary sector and it would be concluded that it has a negative impacts on the establishment rural vitality. Moreover, the size of the tourism and service sectors gives positive impact to the sustainability of rural areas. As conclusion, the size of monetary transfers from other regions of the country to rural areas is also important for the vitality of a region. On the other hand, the higher levels of income inequality tend to be associated with the lower levels of population growth (Deller et al., 2001). Traditionally, property taxes are negatively associated with the increasing average income and population of community. However, the increases in government expenditure are positively correlated with population growth, but have a negative impact on average income growth.

Basically, rural vitality is not described by only one variable, and many of these measures of vitality affect each other. This statement has been confirmed by Clark and Hunter (1992) on the net in-migration rate using the independent variables such as total employment growth and unemployment rate that describe economic opportunity. The expected employment growth and low median housing values increase in-migration, while a high poverty rate is a deterrent for migration (Clark and Hunter, 1992). Entrepreneurial spirit is also very important for rural vitality. It is because entrepreneurs create new companies, new jobs and contribute to local economic growth, as well as population growth. It is also can attracts new residents when the job availability is increased. The study that have been carried out by Cook et al. (2009), focused on a small number of rural communities and through their findings, the number of businesses had a strong influence on community vitality.

### 2. 2. 3. *Accessibility: Distance from Urban Areas*

The accessibility in term of distance from urban areas also is one of the important factor that influencing the community vitality. Based on the study carried out by Holland et al. (2009), they are focuses on the relationship between urban centres and rural areas by analysed the relationship between the metropolitan area of Portland, OR, USA and the surrounding rural areas. From their explanation, the urban economic growth is the main influencing factor in the economic growth of rural areas by established empirical work. The study introduces possible factors that can influence rural vitality, such as the strength of the trade links between rural and urban areas, as well as the job links between these two areas through the percentage number of the rural population commutes from the rural to urban areas. Therefore, the distance from urban area plays an important role in enhancing the economic growth towards the community vitality.

In addition, economic growth also leads to economic vitality, more jobs, more diversity in possible employment as well as the services of recreational and cultural are in the higher demand. All this translates into the increasing of rural vitality. Besides, the study that have been carried out by Partridge and Rickman (2008) has reaffirmed the findings of study by Holland et al. (2009) , the authors find that economic distress in rural areas with the increasing rate of unemployment due to the distance from urban areas. They explain this result as arising from the attenuation of urban agglomeration effects at greater distances and incomplete commuting and migration responses to lower job demand in rural areas. Agarwal and Errington (2009) considered that road infrastructure and measures of accessibility and peripherality affect earnings per worker and the authors find that an increase in the length of roads relative to the area of a county positively affects salary.

## 2. 3. Indigenous Community Vitality

This part will be discussed about the existing the indicators of community vitality among Indigenous peoples in Malaysia in terms of demography, economic performance, social cultures, skill level and also availability facilities. Based on understanding, there are many variables or indicators that can be used as proxy for Indigenous community vitality. The fig.1 below will summarize the existing indicators that are used to describe the level of community vitality towards Indigenous peoples in Malaysia.

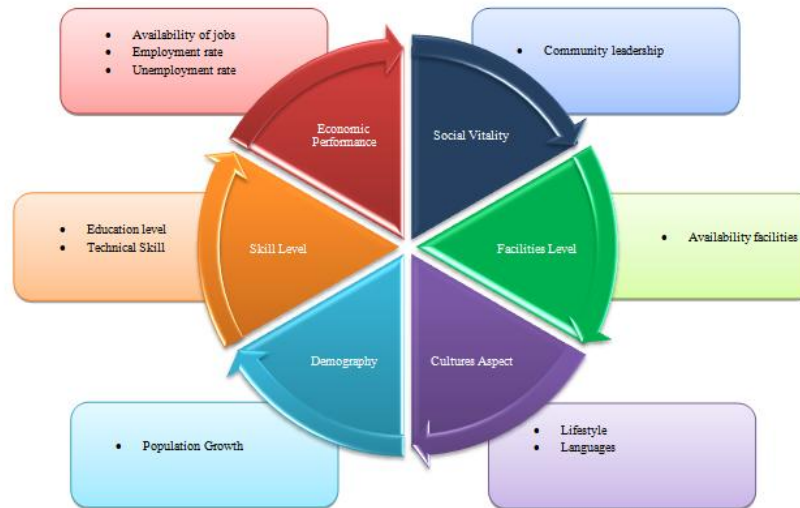


Fig.1. Indicators of Indigenous Community Vitality

Based on the figure above, there are several selected factors that influencing the indicators of community vitality towards Indigenous community in Malaysia. Firstly, the selected factors that influencing indicators of community vitality for Indigenous peoples is demography. In the context of Indigenous community in Malaysia, the population growth or decline will be a result of changes in other indicators of community vitality. Generally, Indigenous community live in groups and they also look after each other even different families. Besides, this indicator can be measured through the acquisition of data from government agencies (JAKOA) as a secondary data to support the primary data from any method that will be used. The data collection that will be used for measuring the level of community vitality is also prohibitively expensive. The rate of population growth at varying time periods for Indigenous community can give positive impact to their vitality as well as to sustain their community vitality in rural areas.

Basically, Indigenous peoples live in isolated areas which are outside the mainstream of national economies and development support. Their settlements are even more likely to lack infrastructure facilities such as playgrounds, schools and health posts. As mentioned in the previous part, the availability of basic facilities such as health post, community halls, schools, banks and retail stores are most important indicators to measure the Indigenous community vitality as they live in poverty and it can facilitate them to utilise the facilities. Besides, the availability of facilities such as school can give positive impact to the education level of Indigenous community especially in adults and children. The level of education in the context of Indigenous peoples in Malaysia is very worrying by the policy makers as their parents do not encourage their children's education since childhood. However, Indigenous peoples have high technical skills such as a forest product to enhance the vitality of their communities. As a result, the level of skill and facilities are the important factors that influencing the community vitality among Indigenous peoples.

Next, the job availability is also important indicators to measure the level of community vitality based on the economic performance. It is due to the migration decisions by them, especially the teenagers of Indigenous people for the availability of employments. A high job growth rate or a high level of job availability indicates

there are more employment opportunities for residents locally which will make the place more attractive for current and prospective residents. In addition, many Indigenous peoples in Malaysia are involved in public and private sectors to obtain the average income to support their communities. Thus, with the development of tourism in their locality also give them the great job opportunities. However, the rates of unemployment within the Indigenous community also give negative impact to their vitality as they have lack of skill to be employed.

Lastly, the social and culture aspect also are the important factors that influencing the indicators of community vitality. The indicators have been selected in the context of Indigenous communities in Malaysia because the majority of indigenous peoples do not want to be insulated from development interventions but seek to benefit from them while safeguarding their cultures, values and institutions. The strengthening of local culture given the higher awareness in preserving cultural diversity, but also can increase the sense of identity and social cohesion. This is particularly proved in the context of Indigenous peoples. This cultural sensitive approach is to address the specific needs of indigenous peoples as well as to strengthen the cultural identity and promote the sustainability of socio-economic development. From the previous study, it would be concluded that the social vitality in terms of leadership community, it can be used to measure the level of vitality as practiced by Indigenous communities in Malaysia which there is one of the residents have been selected as a leader called “*Tok Batin*” in order to establish their community successfully. Meanwhile, the cultures aspect of languages and lifestyle background also are correlated with the sustainability and vitality of their community.

### 3. Conclusion

The present paper attempted to discuss the important indicators and of community vitality that can be measured in the context of Indigenous community for further studies. This study also explored the several factors that influencing community vitality. The first part was to define in detail and understanding about community vitality. The second part was aimed at explaining the important indicators of community vitality, with the purpose of possibly informing policy to sustain the community vitality among Indigenous peoples in Malaysia. There are many variables or indicators can be used to promote vitality among rural communities. The findings offer important insights into the process by which government agencies, planners, and community planners can enhance their communities. Traditionally, community vitality depends on communities maintaining adequate infrastructure, having access to services, economic opportunities and also strong social cultures. The conclusion of this study would be that the vitality of community can be measured for the sustainability and development for rural communities in term of Indigenous peoples as concerned by the government agencies. Nonetheless, it should be of concern that rural communities have an aged population, and the availability of facilities is decreasing faster than the national average. The better understanding on community vitality can give a great opportunity of suggestion to others researcher in determination of vitality level by using the suitable indicators especially in the context of Indigenous peoples in Malaysia. The indicators can guide and direct long term planning, show where improvements are needed and then demonstrate over time whether progress is being made.

### Acknowledgements

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# Preliminary Study on Indigenous Community Vitality at Royal Belum State Park towards Sustainable Human Capital Development

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## Abstract

The study was carried out during the expedition at Royal Belum State Park, Perak in September 2014. There are several resident villages of Indigenous community within Royal Belum State Park which are Sungai Tiang and Sungai Kejar village. Concern for the sustainable human capital development of Indigenous community vitality has stimulated various development programmes by policy makers in order to prevent depopulation and ensure the wellbeing of Indigenous residents, maintaining and boosting Indigenous community vitality. This paper proposes a methodology to determine the socio-economic interpretation and use it to assess the Indigenous community vitality performance in Royal Belum State park. The use of qualitative method through unstructured interviews with Indigenous community and highly detailed observations within Indigenous villages are crucial in this approach. To assess the Indigenous community vitality towards sustainable human capital developments, the study focus on several indicators of Indigenous community vitality which are lifestyle cultures, economic activity, and facilities in the generally well-accessible within Indigenous villages in Royal Belum. Therefore, this paper discussed several important findings including the indicators of community vitality towards sustainable human capital developments of Indigenous peoples.

*Keywords:* Indigenous community, indicators of vitality, socio-economic developments, sustainable human capital;

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## 1. Introduction

Royal Belum State Park was declared by the Sultan of Perak, Sultan Azlan Shah in Kuala Sungai Kejar, Royal Belum in July 2003 and was previously known as tropical rain forests of the oldest and largest in Peninsular Malaysia. Royal Belum State Park was gazetted as a protected area on 3 May 2007 under the Perak State Parks Corporation Enactment 2001. It is managed by the Perak State Parks Corporation. The park encompasses a total area of 117,500 hectares in the most northerly region of the State of Perak in northern Peninsular Malaysia. (Sukswan and Kumaran, 2003). There are several settlements of Indigenous community within Royal Belum State Park which are Sungai Tiang, Sungai Kejar and new settlements, Aman Damai villages.

Generally, Indigenous community in Royal Belum State Park mostly is Jahai group (JAKOA, 2014). The Indigenous community were a minority comprise 1 % of the Malaysian population and are divided into three major ethno linguistic groups, namely Semang (Negrito), Senoi and Proto-Malays (Er Ah Choy et. al, 2010). Indigenous peoples usually live in isolated areas, outside the mainstream of national economies and development support. The settlements of Indigenous community are even more likely to lack infrastructure such as roads, schools and health posts and others. Further, as they become aware that their rights are being ignored, they are increasingly frustrated by their lack of access to development. In particular, Indigenous peoples are placed under the supervision the Ministry of Rural and Regional Development managed by the Department of Indigenous community developments (JAKOA). Every department has the same function and would help promote the stability needed to foster sustainable human capital development (JAKOA, 2013).

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The vitality of Indigenous community has been of concern for policy makers in most countries as a result of depopulation trends, when rural residents leave their settlements and move to other places in search for jobs, amenities not available and other factors. The term of community vitality is a very broad and not well defined how liveable an area is. It is also related to equally unclear and popular terms like ‘sustainability’ and ‘live ability’ (Koomen, 2011). The vitality can refer to concrete measures of economic performance of communities, such as average income, employment and unemployment rate, availability of jobs and others (Laura, 2012). Furthermore, the vitality can also refer to the age composition of the population and the skill level. In addition, access to basic facilities is also an important sign of Indigenous community vitality. It is important for a village to have easy access to transportation, education and medical facilities, retail and cultural facilities for the wellbeing of its residents. However, in the context of indigenous community vitality, the infrastructure and socio-economic developments and modernization are getting busier now less impact on their lives. Therefore, this paper focused on Indigenous community vitality as regards lifestyle, employment and facilities towards the sustainable human capital developments.

## 2. Methodology

The study was conducted during the expedition to the several Indigenous community settlements within Royal Belum State Park on 17<sup>th</sup> to 21<sup>st</sup> September 2014. This study was conducted using interviews method with Indigenous community in order to obtain information on economic activity such as employment to support their daily life. Various information has been obtained from this method even, the feedback provided by the residents are very good. Moreover, the additional information was also obtained through interviews with the Department of Indigenous community (JAKOA) on 19<sup>th</sup> September 2014 about the infrastructures development for Indigenous community in Royal Belum State Park.

Besides, the observation method has been conducted in order to determine the availability of facilities within the settlements of Indigenous community where is another important aspect of community vitality. Based on the observation, the settlements of Indigenous community that has many facilities available is at Sungai Tiang village compared to other villages, Sungai Kejar and Aman Damai village. As a result, the information and data were obtained from both method, (interview and observation) can be determined in order to assess the Indigenous community vitality performance towards sustainable human capital development.

## 3. Result and Discussion

Based on the preliminary data collection from the observation and interviews session with Indigenous peoples, this chapter has been divided into several parts of indicators of Indigenous community vitality in Royal Belum State Park towards sustainable human capital development through lifestyle culture, economic activity, and availability facilities.

### 3. 1. Lifestyle Culture

The first indicator of Indigenous community vitality is cultures through lifestyle background. Copus & Crabtree (1996) consider the cultural aspects of Indigenous community also an important part of its vitality. The traditional lifestyle is one of the important aspects. It is positively correlated with the sustainability (vitality) of an area even community itself. Based on the observation, Indigenous communities in Royal Belum State Park still practicing their traditional culture and nomadic life in case of deaths or misunderstanding between them. Besides, they are still lived in house that made of bamboo and roofed with *nipah* leaves for several settlements within Royal Belum State Park. With the limitations from empowering themselves financially, the intervention by the government especially the department of Indigenous community (JAKOA) becomes more crucial. The survey result indicated the whole community in both villages are receiving various forms of government welfare support. According to JAKOA (2014), Indigenous community were given the assistance scheme of residential for the modernization of their settlements, namely the construction of wooden houses started in year 2009 with

the total number of houses is 9 units – see fig.1a. However, there are certain of Indigenous community still retaining a small hut as a place to rest and relax with the family. In addition, Indigenous community were still practicing their traditional way of life by washing clothes and dishes in riverside areas (fig.1b) even the children were not dressed. As a result, the traditional cultures that have been practiced by Indigenous community in Royal Belum State Park since generation passed can provides more positive impacts towards sustainable of human capital development.



Fig.1: a) The village houses in Sungai Tiang b) A traditional activities in riverside area.

### 3.2 Economic Activity

The availability of jobs in an area is important because it is reflective of its general economic performance, and also how attractive it is for future residents especially for the community vitality towards sustainable human capital development. Indigenous community in Royal Belum State Park are continued subsistence-oriented economic activities using traditional approaches for incomes. Economic activities carried out by them are categorized into three sectors namely jobs from the government sector, private sector and by their own (traditional). Generally, the involvement of Indigenous peoples in traditional economic sectors, do not provide the community with a stable income, further, making everyone in the community right now living in poverty. The results illustrated in fig.2 indicate that majority of residents which 80% are maintaining the traditional economic activities which mostly related to the forest and fishing.

Besides, there are 3% of Indigenous peoples in the several village works with the government sector, Perak State Parks Corporation (PTNP) as a forest ranger as a source of income and their economic activities. Based on the interview from one of the residents who worked as a ranger PTNP, they earned a monthly income RM1400 from the corporation. The rest, 17% of residents had jobs available from a private sector a tourists guide and also boat driver to the tourists who visited in Royal Belum State Park either local tourists or foreign tourists in order to generate their own source of income. Moreover, mainly due to potential economic benefits from tourism sector development in Royal Belum State Park was improving their economic capital and standards of living. From the point of view of community vitality, the areas have lower job availability, but this seems to be a constant trend in time, meaning that the areas are less vital by this indicator, but the absolute the development of socio-economic of Indigenous community was increasing by time passed.

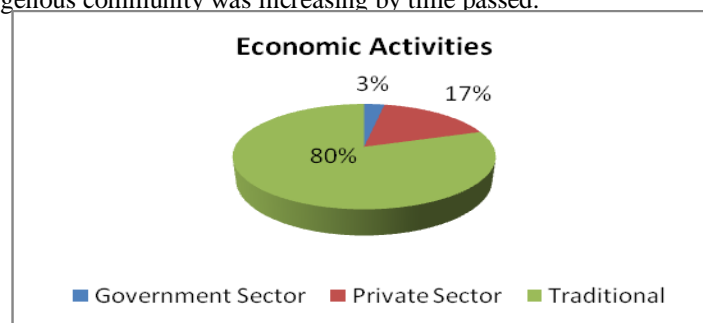


Fig.2: Finding from the Economic activities survey

### 3.3 Availability facilities

The availability of basic facilities is considered an important indicator of community vitality which in turn, enhancing their potential to sustain their population and skill level and also possibly attract new resident to their settlements (Koomen, 2011). Facilities such as schools, clinic, ritual place, and shops are essential for the vitality of settlements and the residents need to access to them on a daily basis. The development of facilities within the settlements of Indigenous community in Royal Belum State Park has started since year 2005. Generally, the facilities have been developed with the assistance of JAKOA to provide convenience for Indigenous peoples in the village for their daily lives. Table 1 below shows the development of facilities to the residents that have been provided by government agency, JAKOA. For Indigenous community facilities, seems to be increase in the number of facilities between 2005 and 2013 for all settlements in Royal Belum State Park.

Regarding to the important indicator of community vitality towards sustainable of human capital development, it is especially interesting to see its performance in facility level to the Indigenous peoples. However, it is important to note that the indicated performance is related to very small absolute differences in the level of facilities. Positively, the development of facilities in every settlement in Royal Belum State Park can assist improved the education level and health status among Indigenous community – see fig.3. It is of concern that small settlements have no access to facilities in the smallest settlements is close to non-existent. From the view point of access to facilities, community vitality declines from 2010 until 2014. This does affect less mobility of Indigenous peoples that have to go outside from settlements for groceries shopping or other services. It is important for community vitality to maintain the access of basic services in order to prevent population decline and sustaining the human capital development among Indigenous peoples.

Table 1: Development of facilities within the Indigenous community settlements


Availability facilities	Year
Public Toilets	2005
School	2005
	
Floating Jetty	2007
Musollah ( <i>Surau</i> )	2007
Court	2008
Solar System	2009
Community Hall	2009
Housing Project	2009
Library toy	2010
Water Tank Project	2010
Clinic	2010

Fig.3: Health facility in Sungai Tiang village

## 6. Conclusion

The preliminary study attempted to determine the vitality of Indigenous community for the sustainable human capital development over the time periods studied. The indicators of community vitality among Indigenous peoples that have been discussed in previous chapter give positive impacts to the sustainability of human capital as well as enhancing the level of socio-economic. Regarding from three indicators of community vitality which are lifestyle culture, economic activity and availability facilities, finds that all indicators positively influences in term of education level, health status and economic development. On the other hand, the traditional approaches among Indigenous community on the economic activity and lifestyle can maintain their cultures that have been implemented from generation passed, although the development and modernization of the country became increasing. The conclusion of this preliminary study indicated that the vitality of Indigenous communities in Royal Belum State Park still maintains and increase based on the observation. The conceptualization of the community vitality theme presented here can hopefully provide a starting-point for a more fruitful discussion on the future of our rural areas especially for Indigenous community by the government agencies.

## Acknowledgements

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## Lean Service Implementation in Malaysian Hospital

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### Abstract

This reviewed paper aims to explore and understand Lean implementation process in service sector with the emphasis on the hospitals. In this context, the researchers will contribute to understand the CSF's of implementing lean in hospital and propose the lean hospital implementation framework for improvement. After understanding Lean concept for implementation in service sector and the CSF's of lean hospital based on review of literature and through analyses of the processes within one of the private hospital in Malaysia, the researchers of this study will propose the conceptual and operational framework for lean hospital implementation to improve process efficiency. Most of the studies in lean hospital are based on quantitative approach especially in studies related to identifying factors that contribute to the successfully of lean service implementation, but there is no specific conceptual and operational framework provided to help the service sector particularly in Malaysian hospital successfully implement lean. This study will address what are the CSF's of lean hospital and how to implement lean hospital. An exploratory mixed method design will be used as well as case study in one private Malaysian hospital. Based on the research questions problem statement described above, the objectives are i) To develop a lean service management framework for hospital and, ii) To propose operational framework for lean hospital implementation. This study hopes to contribute to both academic and industry aspects. The results of the quantitative and qualitative approach will contribute to the body of knowledge in the field of quality management and human resource development. Most of the companies nowadays are trying to improve their financial position by eliminating waste and focusing on what customers' value, rather what companies think is the best for them. Other than that, is to increase companies' employees' knowledge and business efficiency by changing the behavior and attitude of all employees as a result of lean thinking. The results from the preliminary study of literature review will help to determine the CSF's of lean hospital implementation to be successfully implemented. The results from the case study will contribute to better understanding of the conceptual and operational framework of lean hospital implementation in Malaysia. The proposed framework will help management of the hospital to implement lean. In addition, the results of this study not only can benefit hospital, but perhaps other service industry as well.

*Keywords:* Lean, Lean Service Implementation, Critical Success Factors (CSF).

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### 1. Introduction

In this modern world, there is rapid change in management which is affecting all organizations and managers (Burnes, 2004). Organizations are attempting to be more decentralized and transforming their traditional policies by implementing different strategic change tools for improvement of operations (Burnes, 2004; Kotter, 2007). As organizations are struggling to meet increasing competitive pressures and to remain competitive, many of them are embracing Lean, as a tool to improve their position.

Lean is one of the quality initiatives that organizations apply to improve organizational performance by identifying waste and reducing costs from the operations. It is argued that companies could benefit by successful implementation of Lean. For example, Lean system can be helpful in maintaining long term customer satisfaction (Maleyeff, 2006).

Literature illustrates that Lean tool has become popular because of the efficiency shown in Japanese manufacturing companies (Womack, Jones & Roos, 1990). The concept of Lean was first developed by Toyota executive "Mr Kiichiro Toyoda and Mr. Taiichi Ihno" by identifying different kind of wastes within the

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production system (Black & Miller, 2008). However, nowadays, it has evolved as a management approach to improve all processes across the industry (Taleghani, 2010). Service operations are becoming significant in global economy because of increasing need and demand for quality services (Frozen Food Digest, 2002; Bowen & Youngdahl, 1998).

Lean implementation improves employees' productivity by 30%, which leads to quality of service to customers (The Staff of the Corporate Executive Board, 2010). However, despite this fact, companies are not offering quality services to customers (Piercy & Rich, 2009).

One reason that Lean has not been applied to a great extent in service industry is because there is organizational traditional thinking that it is related with production, as it was developed firstly for manufacturing purposes (George, 2003). Appiotti and Bertels (2010) also highlighted that Lean behaviour was only considered beneficial for manufacturing industries; however, nowadays, Lean is considered a simple tool applicable for all sectors. For example, financial companies develop Lean to increase the efficiency and productivity leading to customer satisfaction.

Despite the growing awareness of the need for Lean implementation in service sector, few studies have examined its effectiveness to strengthen their financial position. Subsequently, there are not many books and journals about best practices on Lean in service industry, where organizations could learn before applying this tool (Sarkar, 2009). De Souza (2009) also highlighted that even though there are several studies for Lean in the hospital settings, these studies do not have a strong base, and they significantly lack the analysis on implementation process of Lean tools and techniques as well as the specific lean implementation framework in hospital.

Most studies have been done on the health service sector, particularly in the hospital (Dickson et. al, 2009; Kollberg, et al., 2007; Radnor & Walley, 2008) as well as other areas such as education (Comm & Mathaisel, 2005, Hines & Lethbridge, 2008), a tourist destination (Julien & Tjahjono, 2009) and other types of services (Maleyeff, 2006; Piercy & Rich, 2009) . However, the studies have been conducted as a case studies that study about lean from the point of its application procedures such as techniques and tools.

Vohra & Karun (2010) stated many problems facing global healthcare; i) Hospitals are experiencing severe capacity constraints which affects service quality, physician and patient satisfaction. ii) long waiting time because of poor scheduling; iii) high inventory of drugs or ineffective cost and material management such as overstocking and high stock of expiring and unused medicine also impacts hospital efficiency level; iv) Ineffective use of resources such as operation theatre (OT), nurses and equipment and; v) lack of strong organizational culture such as high-performance work culture, values and norms that affects hospital service quality and overall performance.

Healthcare in Malaysia is mainly under the responsibility of the government's Ministry of Health. Healthcare is one of the 12 National Key Economics Areas (NKEA) under the 10<sup>th</sup> Malaysia Plan (2011-2015). According to Malaysian-German Chamber of Commerce, contribution and investment in healthcare industry expected to help high income nation of year 2020. Thus, Malaysian hospitals need to improve their service quality to satisfy the need of people in Malaysia. Previous studies have shown that hospitals can minimize and eliminate waste and improve its performance through lean implementation (Dickson et. Al, 2009 ; Longhorn & Wickham, 2009)and a strong shared culture among hospitals members(Sorenson, 2002; Singer et. al, 2009) . However, similar study has yet to be undertaken in Malaysian hospitals since the common problem faced is long waiting time (Manaf, 2006).

## 2. Objectives Of The Study

This study will address what are the CSF's of lean hospital and how to implement lean hospital. An exploratory mixed method design will be used as well as case study in one private Malaysian hospital. Based on the research questions problem statement described above, the objectives are: -

- i. To develop a lean service management framework for hospital.
- ii. To propose operational framework for lean hospital implementation.

## 3. Significance Of The Study

This study hopes to contribute to both academic and industry aspects. The results of the quantitative and qualitative approach will contribute to the body of knowledge in the field of quality management and human resource development. Most of the companies nowadays are trying to improve their financial position by eliminating waste and focusing on what customers' value, rather what companies think is the best for them. Other than that, is to increase companies' employees' knowledge and business efficiency by changing the behavior and attitude of all employees as a result of lean thinking. The results from the preliminary study of literature review will help to determine the CSF's of lean hospital implementation to be successfully implemented.

The results from the case study will contribute to better understanding of the conceptual and operational framework of lean hospital implementation in Malaysia. The proposed framework will help management of the hospital to implement lean. In addition, the results of this study not only can benefit hospital, but perhaps other service industry as well

## 4. Overview of Lean

While the philosophy of lean was originated by Toyota in the 1950s, the term was first defined in the book, *The Machine That Changed the World*, which documents results of a study performed at the Massachusetts Institute of Technology (MIT) on the vehicle industry (Hopp & Spearman, 2008). Lean practices were implemented based on several ideologies that appeared prior to it, including total quality management (Montgomery, 2005) and just-in-time (JIT) production (Choudri, 2002). These ideas sparked some of the key elements of lean thinking, including the focus of producing high quality products at relatively low cost only as items are needed (Gyampah, 2000). Initiated by Taiichi Ohno at Toyota Motor Corporation, the techniques of eliminating waste and excess from the product flows were first introduced to automotive engine manufacturing, then to the automobile assembling, and later applied to the entire Toyota supply chain. A new group of lean principles were also formed to identify the value of customers, implement value stream mapping, develop flow production capabilities and a pull-based system, and identify and eliminate all forms of waste in the system (Hines, Holweg & Rich, 2004).

There are three main objectives in the lean philosophy: (1) improving the flow of the system; (2) applying only value adding time and steps into the organization; and (3) eliminating all muda, or waste (Hopp & Spearman, 2008). To achieve these objectives, the basic identity of a system needs to be identified, value and waste need to be defined, and strategies need to be developed and implemented to enhance these definitions (Choudri, 2002). Through continuously reducing wastes in the system, a lean organization expects to develop and maintain production or service value for the customer (Hines, Holweg & Rich, 2004). Any tasks performed by the organization that consume resources but do not add value to the customer's final product are considered as muda (Choudri, 2002). Seven general groups of muda are summarized in (Hale & Kubiak, 2007) and listed below:

- Overproducing more items than included in customer orders
- Inventory due to increases of finished goods and work-in-process
- Motion that does not add value to the final product
- Waiting for any resource throughout the flow of design and production
- Transportation or the additional movement that is not of value to the product
- Not being right the first time or the costs and time associated with repairing and correcting a product.



At the heart of lean philosophy, “value” is defined based on the customer’s perspectives in terms of cost, product functions, etc. The importance of customer value is displayed by the two levels of the lean approach: strategic and operational. The strategic level of lean thinking requires understanding the value of customers. The operational level achieves requirements set by customers through the practice of lean production techniques (Hines, Holweg & Rich, 2004).

Among the lean techniques, standardization is a key component. It defines how the process is to be completed by sequencing all the tasks, and helps build new technologies or products on existing proven ones (Olivella, Cuatrecasas & Gavilan, 2008). Using standardization to simplify and formalize the work procedures, a lean organization expects its system to be less prone to variability and attain higher levels of process visibility (Mehta & Shah, 2005). Together with standardization, concurrent engineering, design for manufacturability (DFM) and value analysis form the lean design mechanism. The main purpose of lean design is to use existing components and make sure that the final designs are compatible with existing processes (Jayaram, Vickery & Droge, 2008), so that the company’s resources can be leveraged as much as possible.

Other lean concepts include the pull-based system (Choudri, 2002), just-in-time manufacturing (Choudri, 2002), total quality management (Montgomery, 2005) (Aucoin, 2000), lean supply chain and customer management (Womack, Jones & Roos, 2007). Applying them to the product design process means fast product design and development based mainly on customer orders.

### 5. Lean in Service Sector and Hospitals

In organizations, 80% of the costs come from product design which includes services, such as finance, human resources and product development, while costs from manufacturing labor comprise only 20%. This leads to higher costs caused by services and with increasing competition, it will lead to loss of customers, which are more apparent in services than in manufacturing (George, 2003). To keep customers satisfied, companies are trying to increase the service quality by integrating Lean principle in order to reduce costs and increase profitability (George, 2003; Bowen & Youngdahl, 1998).

Lean concept is a way to identify where the value is in the process, eliminate the waste within the process and create value to the customer. This concept shows that Lean is applicable in any organization, since the goal of organization is to create value to end customer (Womack & Jones, 1994, cited in Piercy & Rich, 2009). One development of Lean beyond manufacturing was application of Lean in the supply chain management. This helped the organizations to develop closer relationship with suppliers by sharing more information, increasing innovation and lowering the costs (Hines, 1996, cited in Piercy & Rich, 2009).

Lean in service is applicable to organizations that have limited information and face interruption on task performance. The services encounter high costs with slow processes because of non-value added activities, which lead to poor quality and low customer satisfaction. There is service complexity, which occur in Work in Progress (WIP) and cause delays. Examples of WIP are reports necessary to complete, unchecked e-mails, necessary phone calls to make and sales orders. This slow process is due to the 20% of activities that cause delay of 80% (George, 2003).

Also, Lean service has shown great success in healthcare system. Healthcare system has adopted Lean by analyzing the flow of activities and making improvement through process mapping techniques, as well as identification and reduction of waste (Swank, 2003; Jones & Mitchell, 2006; Towill & Christopher, 2005; Esimai, 2004; Massey & Williams, 2005, cited in Piercy & Rich, 2009).

## 6. Seven Types of Wastes

TABLE 1. Types of wastes at manufacturing and service sector

Waste	Description	Example
<b>Over processing</b>	<i>Manufacturing perspective:</i> It means organizations use big machines, which are not efficient with low quality that causes defects. So, organization should focus on long term and purchase smaller and simpler machines that fit to the capacity needed based on customers' demand (Bicheno, 2004)	✓ The variation between operators, which causes the machine to be used for several lines (Bicheno, 2004)
	<i>Service perspective:</i> It includes excess costs with attempt to add more value to service than is need to satisfy customers (George, 2003)	✓ If a store wraps clothing item in a layer of tissue, this might work in boutique that target high income people, but not in retail stores where people want to pay as less as possible (George, 2003) ✓ In healthcare, acquiring numerous test samples from patients, which are unnecessary (Petersson et al., 2010)
<b>Transportation</b>	<i>Manufacturing perspective:</i> It is the movement of materials which is not needed, because their chance to get damaged and deteriorated increases (Bicheno, 2004)	✓ The movement of materials on and off site without a need; and movement of intermediate product in the site (Melton, 2005)
	<i>Service perspective:</i> It means the movement of materials and information, which should be reduced for activities that do not add value, or are related to occurrence of waiting time and queues that dissatisfy customers (George, 2003).	✓ In banks, many people face the problem of transportation because they have to collect materials and information by asking different people until they reach the right person (George, 2003). ✓ In healthcare, it can be the distance of transport of test samples because of the centralized resources in organizations (Petersson et al., 2010).
<b>Motion</b>	<i>Manufacturing perspective:</i> It happens when there are unnecessary movement of people and machines (Bicheno, 2004)	Double handling of materials in the organizations (Bicheno, 2004)
	<i>Service perspective:</i> It does not add value to services, because it only takes additional time and cost related to unnecessary movement of employees. The motion is very hard to measure in service sector (George, 2003)	✓ People have to go from one computer to another to complete a task (George, 2003) ✓ Searching for people and equipments which are placed within long distance (Petersson et al., 2010).
<b>Inventory</b>	<i>Manufacturing perspective:</i> It involves the over existence of raw materials, and finished goods in organizations. This is considered waste because of the excess of cost spend on them (Bicheno, 2004)	✓ The excess of inventory compared to the quantity that was specified (Bicheno, 2004). ✓ Large warehouse occupied with inventory in the site (Melton, 2005). When employees are unable to provide services according to customer's requirements due to lack of supplies (Bicheno, 2004).
	<i>Service perspective:</i> It means using excess inventory instead of what is actually required to provide service to customers. This should be avoided because it does not add value to customers and involves higher cost of waiting. This kind of waste is usually a result of overproduction (George, 2003)	✓ Providing substitute of products or services, not what was asked by customers (Bicheno, 2004)
<b>Waiting time</b>	<i>Manufacturing perspective:</i> It is considered an enemy of flow, because materials and components do not move as a result of waste (Bicheno, 2004)	✓ Operators or employees waiting for something; materials waiting in a queue; and late delivery (Bicheno, 2004)

	<p><i>Service perspective:</i> It involves a delay in one activity, which causes a delay in the following activity. The value stream mapping technique is useful to identify process delays. Organizations can analyze the waiting time by looking at each activity in the process to identify delays (George, 2003)</p>	<ul style="list-style-type: none"> <li>✓ Waiting in the meeting for people who show up late, which lead to irritation and loss of time in which work could be performed (Petersson <i>et al.</i>, 2010).</li> <li>✓ In healthcare, patients waiting in the queues (Petersson <i>et al.</i>, 2010)</li> </ul>
<b>Defect</b>	<p><i>Manufacturing perspective:</i> It involves any waste which involves costs related to delay, warranty and repairs (Bicheno, 2004)</p>	<ul style="list-style-type: none"> <li>✓ Rework, customers' complaints, or even loss of customers (Bicheno, 2004).</li> <li>✓ Higher operating costs (Melton, 2005).</li> </ul>
	<p><i>Service perspective:</i> It happens when services are not performed within specification of customers. Some of the services are not costly to correct mistakes, but organizations should consider that they might also lose customers (George, 2003)</p>	<ul style="list-style-type: none"> <li>✓ A lack of information or inaccurate process of documentation can cause delays which dissatisfy customers (George, 2003).</li> <li>✓ In healthcare, infections that patients get due to lack of hygiene and poor treatment (Petersson <i>et al.</i>, 2010)</li> </ul>
<b>Overproduction</b>	<p><i>Manufacturing perspective:</i> It involves producing too much, or just in case it is needed without being focused on customers' demand. This leads to excessive lead times and deterioration of products (Bicheno, 2004)</p>	<ul style="list-style-type: none"> <li>✓ The area of space that is needed and used in the warehouse (Melton, 2005)</li> </ul>
	<p><i>Service perspective:</i> It means the excess production of service outputs (George, 2003). This happens because organizations produce more services than customers want.</p>	<ul style="list-style-type: none"> <li>✓ Entering unnecessary information for organization (Petersson <i>et al.</i>, 2010).</li> <li>✓ In healthcare, patients are admitted to the hospital and they wait because there is no time to give them service till later (Petersson <i>et al.</i>, 2010).</li> </ul>
<b>Untapped competence</b>	<p><i>Service perspective:</i> It happens when organization do not use the competence of workforce and their creativity (Petersson <i>et al.</i>, 2010).</p>	<ul style="list-style-type: none"> <li>✓ The loss of skilled employees that could contribute for organizational improvement (Petersson <i>et al.</i>, 2010).</li> <li>✓ Not using the creativity of people; not paying attention to ideas of employees, but only managers (Bicheno, 2004)</li> </ul>

## 7. Comparative Study For Lean Healthcare in Several Hospitals

Understanding Lean healthcare practices is important in hospital by highlighting the changes in the processes with Lean implementation and also, the advantages that these changes generate. Bowen and Youngdahl (1998) provide an example of the implementation of Lean healthcare in Shoudice hospital. This hospital applied Lean for the treatment of patients for Hernia. This implementation started from the admission process, which can be completed online. The way the hospital operates is by trying to emphasize on the patient to do their own tasks, such as shave the operating body area, mark where to operate, walk with doctors' help to wheel chair immediately after operation and so on. Even though these tasks are minor, these are helping the patients for faster recovery and free up the nurses and doctors' time for the valuable tasks. This hospital is also recognized for the fastest Hernia recovery compared to the other Hernia hospitals (Bowen & Youngdahl, 1998).

Jones and Mitchell (2006) provided another Lean implementation example of Flinders Medical Centre (Australia) in emergency department. This medical centre used to struggle to handle the emergency department patient due to the complex process. Patients used to be divided into five urgent categories based on the "Triage System" and for each category, patients were supposed to meet doctors in certain timeframe. This system was creating the waste of patients' time and also the life risk in emergency department. In the year 2003, around 1000 patients waited for 8 hours to get the treatment. To resolve this problem, Lean Healthcare was implemented by creating two departments based on the value stream, which were patients who can be treated

immediately and patients who have to be admitted. This change in process led to 25% reduction in the patients' waiting time and this simplification in process also created lesser pressure to the staff.

In Virginia Mason Medical Center (VMMC), several Lean tools and techniques were applied, such as “3P, Standard work, Value stream, Takt Time, mistake-proofing and load leveling”. Load leveling was to create flow of patients from one to another while scheduling appointments. This resulted in the hospital to maximize staff efficiency, flow in patients resulting higher number of patients and also ability to allocate more time for operations. Aside from this, radiation oncology also tries to maximize the treatment by placing chair outside the treatment room, which enables good utilization of this treatment room and also helps to reduce the patients' waiting time. Overall, with this implementation, VMMC was able to reduce the patients' waiting time by 14%, increase the number of treated patients by 57% and reduce walking for staff to complete the job by 61% (Black & Miller, 2008, p 169).

### 8. Lean Implementation

Lean is very important concept in organizations because it involves broad understanding, high commitment and deep analysis of problems. More and more organizations are implementing Lean in long term basis to improve quality, and also to reduce costs, fast delivery and efficient queue times. To succeed in Lean implementation, a committed management is necessary to give support to the organizations. Also, an external support might bring a new way of thinking and transfer knowledge to organizations by recommending the areas that

Lean application is necessary. External support might be helpful in short term to increase the knowledge of organizations toward Lean; however, the organizations should not be dependent on them because it is a continuous progress that last long (Petersson et al., 2010). Therefore, organizations should be aware that Lean cannot be implemented overnight. There is a need to work continuously to reduce waste and increase commitments by looking at opportunities and limitations (Petersson et al., 2010, p. 17). An example is Toyota that implemented Lean in 1950s and still continues to reduce waste (Petersson et al., 2010). This is the reason it is important to understand further the CSF's and challenges of Lean implementation, as well as its tools and techniques and comparative study of hospitals for Lean practices.

### 9. CRITICAL SUCCESS FACTORS (CSF) OF LEAN IMPLEMENTATION

Abdullah, Uli and Tari (2008) emphasized on the importance of having these four factors to drive the positive impact on quality improvement which are Management commitment, Employee involvement, Training & education and Reward & recognition. All these factors were originally contributed by the quality guru's Deming and Juran (Deming, 1982; Juran, 1982, cited in Abdullah et al., 2008).

One of the CSFs that affect Lean implementation at great extent in manufacturing is management support (Alavi, 2003; Bamber & Dale, 2000; Boyer & Sovilla, 2003; Parks, 2002; Womack & Jones, 1996, cited in Worley & Doolen, 2006). Top management should give greater efforts in encouraging all employees for change by introducing the importance of Lean concept (Atkinson, 2004; Boyer & Sovilla, 2003, cited in Worley & Doolen, 2006). Also, top management commitment is important to give support to low level employees and convey consistent information about Lean (Crute, Ward, Brown & Graves, 2003). Another CSF is increased communication between employees, as well as within the management and employees, which will benefit Lean implementation. Effective communication is a necessity in Lean manufacturing between all value streams (Atkinson, 2004; Worley & Doolen, 2006). Supporting this argument, clear and effective communication as success factor for Lean implementation in service is helpful by sharing the success stories of Lean implementation or with constant feedback from employees to top management for process improvement (Cotte et Al, 2008). However, Worley and Doolen (2006) emphasize on combination of both management support and communication to implement Lean successfully. Furthermore, a clear communication plays important role in keeping strong customer-supplier relationship, where there are clear responsibilities of employees involved for

products and services, and those in charge for responding to various problems and concerns (Spear & Bowen, 1999).

Based on Deloitte MCS Limited (2010), in a research on hundred companies in service sectors, these were the step by step CSFs for Lean implementation, such as trust in organization that Lean implementation will be successful; link of Lean with the strategic objectives to properly utilize Lean resources; application of Lean in all functions; and creating a Lean culture within organization for improvement. Overall, emphasis is given to building the trust for Lean through culture change within the service organization in similar way as in manufacturing. To further emphasize on the trust that can be built within the organization, Chakrabarty and Tan (2007) suggest that companies should start measuring success of quality implementation in financial terms, and then it will be easier for management to communicate and show employees the importance of quality measures. Also, Deloitte MCS Limited (2010) suggests linking Lean with strategic improvement to focus on the objectives that are more critical to the organization. Thus, to get the best results of Lean management support and vision towards Lean practices, it is a must to create Lean culture within the employees.

Appiotti and Bertels (2010) also contributed in the literature of CSF's for Lean, specifically for the financial service companies by identifying these factors: the importance of focusing on strategy, identifying customers' requirements and values, measuring the valuable factors to understand the success of Lean implementation, simplifying the process and understanding the system before making changes. Appiotti and Bertels (2010) emphasized that in financial service, companies try to apply Lean processes, which are similar to manufacturing processes; however, this is not the right approach because Lean should be applied in the area where it has a strategic importance. This way, companies can enhance the core competences to gain the competitive advantage by enhancing the process, which will in turn save money and build customer trust.

Cotte et al. (2008) emphasize on making changes by breaking down processes to understand them easier, which will also motivate the employees. In similar context, Westwood et al. (2007) emphasize on making small changes within the process to improve, such as in case of National Health Service –UK (NHS UK), where an emergency doctor used to waste time searching for the prescription pad, but now prescription pad is attached in the doctor's desk. Even making Lean as part of the organizational culture, it has been followed by NHS UK with the implementation of Lean support team, who is responsible to educate and train employees on Lean. Applying Lean is bringing new changes to the organization, which requires involvement and commitment from all employees. Cotte et al. (2008) point out that without employees' ground level involvement, problems can only be solved at the surface level since these employees have more knowledge about the detail processes and work flow. Also, Lean focus is to identify the root of problems so that they will not happen again. With similar context, Westwood et al. (2007) highlighted that Lean is implemented in organizations from top management vision, but success comes with the involvement of both top management and employees from all levels.

With the understanding of these factors before Lean implementation, it will help to materialize the benefits and also to create Lean culture.

## 10. Conclusion

The authors (Hines, Holwe & Rich 2004) are developing a set of factors that criticizes Lean. Reviewing the literature regarding lean evolution it seems that many shortcoming of lean come up. The research defines the key aspects of this criticism, which are lack of contingency and ability to cope with variability, as well as lack of consideration of human aspects and strategic perspective.

i. Human aspects. Lean approaches can be viewed as Marxist's being exploitative and creating high pressure to the shop floor workers, which leads to dehumanizing effect, Williams et. al. (1992). Although the authors on the opposite side don't support these view, they still raise the question of the importance of showing respect to the employees. And that lean thinking should not be regarded as a set of mechanistic hard tools and techniques that would repress the motivation. Creating a good atmosphere for your workers is really challenging, but most of the authors argue that this is the key to a long term sustainability of any lean programmed.

ii. Scope and lack of strategic perspective is concerning lean transformation within the whole organization and how the lean should be put into perspective and applied at the leadership level and not only perceiving as a tools that could improve only one part of the processes.

iii. Coping with variety is a key aspect of the lean approach. The best ways of managing variety should be found within the implementation process that would add value to the customers. In case of demand variability lean approaches as model scheduling and level scheduling can be developed. But some authors argue that such approaches are not always as flexible as they need to be to respond adequately to the customer driven variability.

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## Human Capital Formation and Development among Jahai Community at Royal Belum State Park, Perak, Malaysia

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### Abstract

The most important component in the economic development of a country is its human capital development. Economic development of a country can be ranked by the number of significant investment in developing human capital to improve the level of education and training, health services, child care and the quality of the workforce. Economists often assume that spending on education and medical care as a capital investment inhuman. The term "human capital" is used because the person cannot be separated from the knowledge, skills, or their health in a way that they can get out of their financial assets. Indigenous or Orang Asli in Malay is one of the ethnic minorities and the unique heritage of Malaysia. There are about 142,000 indigenous people in Malaysia, mostly concentrated in Peninsular Malaysia. Indigenous community in Malaysia officially divided into three largest groups of Negrito, Senoi and Malay Proto. Senoi and Negrito tribes were classified into six small tribes. The Malay Proto was broken down into seven small tribes. Jahai tribe is one of the original population in Royal Belum Forest, Perak. As part of Negrito groups, and with small populations and growing at a rate low enough, people are quite isolated. Jahai tribe is not much known tribe of popularity Royal Belum Forest and beauty of natural values and aesthetic. The majority of them still practice traditional way of life is strongly influenced by the environment and the remnants of the old practices of their ancestors. Various efforts were made by either the government or the private sector to improve the living standards of indigenous economic, educational, spiritual and social. In the latest development standards or the quality of their lives better than ever in terms of economic, spiritual, social and educational . This article attempts to discuss the status of human capital development of Jahai tribe in Royal Belum Forest, Perak. This study will provide information on Jahai tribe and various aspects of their lives.

*Keywords:* human capital; development; living standard; indigenous community

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### 1. Introduction

The survival of a social group is strongly influenced by the power of control over some of its members to empower their ownership such as physical capital, social capital, human capital, financial capital, cultural capital and natural capital. This social group's ability to dominate most or all capitals can make their survival more secure and sustainable. Human capital consists of many dimensions, which have been examined in-depth by many researchers. Emery and Flora (2006) have identified that human capital refers to skills, talents and knowledge possessed by members of the community. Therefore the development of human capital is the critical determinant of long-term sustainability and that efforts to accelerate the evolution of human consciousness and the emergence of mentally self-conscious individuals will be the most effective approach for ensuring a sustainable future (Slaus & Jacobs, 2011). \_\_\_\_\_

Mastery of human capital in this population allows them to continue to endure all sorts of changes and challenges of life in the future. Conversely, any shortfall in the control group put social human capital is

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increasingly lagging behind, threatened their lives easier, and less able to compete with other major racial groups in this country. Human capital is a term that refers to a person or a group of individuals who are able to improve their standard of living. The living standard of ability level refers to the level of ownership of knowledge, skill or talent possessed by individuals or communities. Each community has their own human capital, including indigenous peoples; they have traditionally formed human capital based on the area they inhabit. Indigenous people are a collective term referring to the native people who have close ties with the land they inhabit but each person (or tribe) has their uniqueness. They are groups or tribes with different historical and social backgrounds, language families, racial stocks and religious moulds. Indigenous people traditionally have a harmonious and symbiotic relationship with the natural environment and their societies tend to be organized on an egalitarian and communitarian basis, with their own systems of knowledge, self-governance and nationhood. They have governed their ancestral territories and natural resources as a participatory community based on democratic processes. They have a collective dependency to the natural resources in their habitats and territories. They also have a historical and unique relationship with their ancestral territories. They have developed particular cultures, life styles, traditions and belief systems according to their territories and natural resources. They have been accumulating vast indigenous knowledge, science and technologies and continuing to practise an egalitarian life style. However, the mainstream society always fails to appreciate the unique cultures of indigenous peoples but consider them as socially and economically backward communities. Ironically, Indigenous people suffer from encroachment on and dispossession of their territories by settlers, companies and state agencies. They have been denied the right to self-govern and governed by superimposed and inappropriate structures of governance. Hence their lifestyle and livelihood are threatened.

Orang Asli (in Malay) or original people are a generic Malaysian term for indigenous people to Peninsular Malaysia. Officially, there are 18 orang asli tribes in Peninsular Malaysia, categorised under three main groups according to their different languages and customs:

- Negrito – confined to the northern portion of the peninsular
- Senoi, residing in the central region
- Malay-Proto, in the southern region.

The indigenous peoples of Malaysia, or Orang Asal, are not a homogenous group. There are at least 95 subgroups, each with their own distinct language and culture. However, they are all marginalised socioeconomically and culturally in Malaysia.

The lifestyle and means of subsistence of the indigenous peoples varies. In Peninsular Malaysia, fishing is the chief occupation of coastal communities, such as the Orang Laut, Orang Seletar and Maluneri. Others, including some Temuan, Jakun and Semai communities, practise permanent agriculture and manage their own rubber, oil palm or cocoa farms. Another approximately 40% of indigenous peoples live close to or within forested area. For instance social capital of indigenous community in Royal Belum is associated with forest. The importance of human capital as a critical determinant of long-term preservation of life has attracted authors eager to study the status of human capital among the Jahai tribes at Royal Belum State Park, Malaysia.

There are six social groups of Negrito ethnic namely Kensiu, Kintak, Lanoh, Jahai, Mendriq and Jahai (see Table 1). It can be seen from Table 1 that's Kintak tribes who live in Hulu Perak has the lowest population among the Negrito Ethnic with the population of 208 peoples. This followed by Kensiu tribe in Kg. Hole Legong, Baling, Kedah with 221 peoples, Mendriq tribes in remote areas Gua Musang with 307 peoples, and Lanoh tribe in Hulu Perak with the population of 360 peoples. Jahai tribe in Hulu Perak (especially in Belum-Temenggor Complex) is the largest groups with the population of 2358 peoples and followed by Bateq tribe with the population of 1478 peoples.

Table 1: Distribution of Indigenous People Population by Ethnic in Malaysia, 2010 (Source: Mustaffa, 2011)

ETHNIC GROUP		TOTAL NUMBER OF FAMILY	TOTAL OF PEOPLES	PERCENTAGE
NEGRITO	Kensiu*	58	221	0.1
	Kintak*	49	208	0.1
	Lanoh*	74	360	0.2
	Jahai	504	2358	1.3
	Mendriq*	62	307	0.2
	Bateq	307	1478	0.8
	<b>Total</b>	1054	4932	2.8
SENOI	Temiar	6061	30628	17.2
	Semai	9852	49427	27.7
	Semoq Beri	1183	5225	2.9
	Che Wong*	145	579	0.3
	Jahut	1128	5560	3.1
	Mahmeri	905	3700	2.1
	<b>Total</b>	19274	95119	53.4
MALAY PROTO	Temuan	6384	27996	15.7
	Semelai	1792	7619	4.3
	Jakun	7848	34802	19.5
	Orang Kanaq*	29	139	0.1
	Orang Kuala	624	3527	2.0
	Orang Seletar	349	1664	0.9
	<b>Total</b>	17026	75747	42.5
OTHERS	Malay	10	952	0.5
	Chinese	7	633	0.4
	Indian	-	93	0.1
	Others	5	370	0.4
	<b>Total</b>	22	2048	1.1
NOT STATED	<b>Total</b>	7	306	0.2
<b>OVERALL TOTAL</b>		37383	178152	100.0

## 2. Concept of Human Capital

Human capital development is the driving force for progress and economic development of a country. Productivity, creativity, competitiveness and ability in the use and production of new technology in a country are determined by the quality of the human resources. Even so, humans are not robots or machines that can be set in accordance with the rules required but require filling the soul and spirit are balanced with the needs of technology world today. Hence, the quality of human capital should be developed holistically by emphasizing the development of knowledge, skills, intellectual capital such as science, technology and entrepreneurship, progressive acculturation attitudes, ethical values and moral is high. According to Othman, Roslina and Norhadija (2011), development of knowledge and training to human capital investment requires education and continuing skills training quality so was born the first class human capital that is able to meet the development needs of individual, family, community, nation and world. Various definitions of human capital have been provided by many researchers in which each gives a different meaning and context. While the intent and the

concept is the same. Human capital refers to an individual human being or a community and his capability to do work. Human ability depends on the levels of possession of knowledge, skill and talent.

Human capital is defined as the ability of people to maximize their potential use in achieving a best in all aspects of their lives (Ratna, 2010). According to Flora (1999), the human capital refers to the resources of the individual such as education, skills, talents, health, knowledge gained through experience and formal learning, values, and leadership abilities. Features such as human capital has a commendable character, inspire philosophical belief system, principled, integrity, vision, and have proper planning, civilized and admirable moral imperative in the development of human capital. Elements of human capital can be embroidered in the civilizing process knowledge. Human capital issues in the context of acculturation can be detected in the philosophy of science education in Malaysia is developing the potential of individuals in a holistic and integrated to produce a balanced and harmonious intellectually, spiritually, emotionally and physically by faith and obedience to God. This effort aims to produce graduates who are knowledgeable, competent, honorable, responsible and capable of achieving well-being and contribute to the betterment of the family, community and country.

Emery and Flora (2006), Adam and Urquhart (2007), Kwon (2009) and Phillips and Pittman (2009), define human capital as knowledge and talents possessed by members of the community including the adult, youth and children. For Aini (2006), human capital also sees humans as an energy assets is truly important and meaningful to economic activity, the development of the country, or even the nation's progress. Sidek (2005) was subsequently added that the quality of human capital, not only has the knowledge and skills of the efforts that are current and sophisticated, but they also need to stress the importance of ethical values as a guiding principle in the development of human capital. According to Muhammad Hisham (2005), good human capital and high quality can shape the direction of the country towards the targeted vision. Without quality human capital, a country or society become weak because of the lack of human factors to be used as a trigger for a new initiative in socio-economic development. In addition, human capital also has a mobile character limit space. Each individual has the ability to transfer their skills to a different location if they have the economic resources, social support, and legal rights to do so. Though different, there are some similarities in the definition of point human capital given by scholars, namely the number and capacity of their terms knowledge, talents and skills, in doing the work. Abdul Rahman (2006) pointed that human capital is the knowledge and skills that will be owned by individuals and obtained by (i) the ability itself, (ii) experience in a variety of ways (not the same between individuals) and takes quite a long time (according to ability), (iii) are specifically useful for an individual or joint basis, and (iv) vulnerable to external influences of environment and social ties that exist. In principle, human capital is related to the efficiency and commitment of individuals in organizations or communities from the perspective of skills, experience, potential and capacity. Thus, the main goal is the development of human capital to improve and develop the individual / group for the survival and future benefits.

### 3. Methodology and Location

The study was conducted by means of unstructured interviews with indigenous people in the village of Jahai tribe for obtaining information on economic, spiritual, social and educational activities to support their daily life. Various information and information has been obtained from these interviews and even feedback and the services provided by the villagers is very good. This study was conducted during the survey to some Indigenous community settlement around the Royal Belum State Park in the village of Sungai Tiang and Sungai Kejar on 17 September to 21 September 2014 year. The study was conducted by means of interviews and observations of Jahai tribe in both villages.

In addition, the observation method is also done to look at the development of infrastructure facilities in both villages. An interview with the Department of Orang Asli (JAKOA) also has been carried out on 19 September 2014 to to gain insight and information related to economic status, spiritual, social and education of Jahai community at Royal Belum. Through observation, Kampung Sungai Tiang is a village that has the infrastructure for indigenous peoples in the region compared to Kampung Sungai Kejar. Therefore, the information and data

obtained from the interview and observation can be discussed so that economic, spiritual, social and educational activities of Jahai tribe and the development of infrastructure facilities in both villages knowable.

The study was conducted among Jahai tribes at Royal Belum State Park, Perak also known as the Royal Belum Forest Reserve is an area rich with biological diversity, complex structure with approximately 60% of the carbon stored in forest vegetation. This forest is one of the oldest tropical rainforest in the world and remains one of the largest virgin forests reserved with a stunning flora and fauna in Malaysia which the forests covered about 118 000 ha. In 194, the government has constructed a dam called Temangor Dam at Hulu Perak River, Gerik, Perak. The dam is located across the Perak River about 200 km to the northeast of Ipoh, Perak. This construction produces a large lake called Temenggor Lake. Temenggor lake located in adventure form the watershed as a source of water and hydroelectricity generators. Temenggor lake covering approximately 15,200 hectares and is the largest man-made lake in Perak. Forest areas are submerged for the dam, which is the strategic idea of the Prime Minister, the late Tun Abdul Razak in 1974. Once flooded, hill ranks of appeals, which is the high ground here turned into two small islands connected by a bridge of appeals. It is not only costly but also involves the transfer of a number of traditional Malay and Orang Asli. This area has become a dwelling place about 600 indigenous people in two villages namely Kampung Sungai Tiang and Kampung Sungai Kejar. Royal Belum State Park has attracted an average of 10,000 visitors each year.

#### 4. Survey Findings

Indigenous people have their own nature and quality of the human capital. Knowledge, skills and unique talent that they have are highly regard and attention from mainstream society. In the context of today's world indigenous human capital has invaluable benefits. Traditional knowledge they have is directly related to the environment in which they live (Amir Zal, 2013), this led the equity of their uniqueness human capital is not owned by other communities.

##### 4.1. Human Capital of Jahai Tribe

Indigenous people of Jahai are an indigenous tribe of Negritos. They inhabit many rural areas, particularly in the Northeast Perak and West Kelantan. Most Aboriginal Jahai choose to stay either at the confluence of the rivers or in coastal lakes. Where they are in Banun, Sungai Tiang and coastal Temenggor Dam in Perak and Kelantan, they are highly concentrated in and around Kampung Sungai Rual Jeli, Kelantan Hulu (Department of Orang Asli, 2015).

Location of Jahai tribe is in Banun, Sungai Tiang, Sungai Kejar and coastal Temenggor Dam in Belum-Temenggor Complex, Gerik, Perak. While in Kelantan, they are concentrated in and around Kampung Sungai Rual and Jeli at Hulu Kelantan (upstream of Kelantan). In general, looks as though there are similarities Jahai people with Abyssinia or Negro people in Africa, the Negrito tribes in the Andaman Islands and the Aeta of the Philippines. Banana-shaped combs their home, built of bamboo and thatched leaves *bertam* and *tepus*. Their home state briefly that it was due to those who like to practice nomadic, especially when there is death and injury for purposes other than food needs in new areas. However, like other indigenous communities, they now have their own settlements and homeless of all aspects of life through assistance by the Government.

Jahai mostly live in the forest environment to help them implement hunting and gathering. This corresponds to the routine of their lives as hunter-gatherers in Peninsular Malaysia. But life does not mean they do not settle as other communities, now Jahai began life living in residential areas established by the government through various development programs, including the provision of housing assistance through the Development Programme for the Hardcore Poor (PPRT). According to Tengku Intan Suzila et al. (2012), through efforts such as the development of it causes indigenous community have noticed and want new things, including through communication with the outside community as tourists, middlemen, government officials and researchers.

Jahai more appropriate now categorized as semi-nomadic communities (semi-nomadic). Jahai now resides in certain areas, including build and own a house. But at the same time they go into the woods for a long time and

build settlements while when looking for forest resources. This is because Jahai still depend on forest resources, whether to sell the collection of forest products to the outside or use it to meet the needs of self, family or community. At the same time they have to accept the changes through development undertaken on them. This includes receiving new way of life by living in a community site and get help like a house built by PPRT.

Jahai have a distinctive way of obtaining forest resources. They use methods that can save time, energy and costs. Among the commonly practiced method is living temporarily in the woods for a certain period to bring along a family member. Jahai build temporary settlements along the river as in Sungai Tiang and Sungai Kejar Royal Belum State Park. The transfer movement is done in two forms, namely in small and large group. In small groups, usually transfer contains only two or three families, while large groups of larger numbers. These settlements exist only to be temporary. They does not have a fixed time period whether month, week or even shorter. After living some time they moved to a new settlement. Among the considerations for the move is the ease in obtaining forest resources, including in terms of volume or distance with temporary settlements. Jahai usually will not go and build temporary settlements during the rainy season, between October and December, sometimes up to January. In the months that the river water level increases rapidly. This caused flooding and water to produce a fast-flowing river that could threaten their security either for living or moving through the river. Temporary settlements are usually arranged by the family. Every family has a small tent, otherwise known as *haya*. It fully built using traditional sources such as palm and bamboo forests. But bamboo is increasingly less used, unless they build small when to find forest resources only. This is because, it is difficult to remove and non-durable material. Instead, most Jahai now was using canvas as roofing and flooring. There are also Jahai using bamboo as a floor for them there. However, their entire basic frame constructed from bamboo. If there are any unmarried person, they also follow their parents into the forest, there lived together in the same or make their own *haya* in a smaller size.

They move from one place to another to another to follow the path of the river with rafts or boats fibers. For rafting, they built their own raft by using their self-generated by using bamboo at about ten feet long. They use a raft for many activities, not only to move from one place to another, but also a way of recreation for their children. Children make their raft as toys, pedal from upstream to downstream and upstream to downstream, from morning till evening. In addition to the raft, there are also Jahai who use boats made of fiber coupled to the engine of their daily work, including for nomadic. But not many Jahai have fiber-engine boats because it involves costs such as to acquire, manage, repair and petrol costs. Due to the relatively high costs, most Jahai decided to use only the yoke whether for daily activities and itinerant.

With respect to human capital Jahai, Jahai men into the forest to find the deeper forest resources. They find forest resources that have economic value as find bamboo, rattan, resin, sandalwood, honey, frogs and other forest resources. The women also live with my children. But does not mean that Jahai women sit casually, they actively seek certain forest resources, including food ingredients and herbs. However, it is extremely rare to find a woman use chopsticks food source. Usually they find cassava and fish can be eaten immediately. More uniquely, when they entered the forest to find food sources, Jahai women also cited vegetables, diamonds forests of colorful plants and most unique is that they are also looking forest herbs. Jahai women are more knowledgeable and have greater knowledge about the types of herbs in the forest than men. Often Jahai men refer Jahai women to ask about the name and how to use herbs forest. Knowledge of forest plant species that can be used as drugs, clearly know the names of herbs and how to use them is an integral part of human capital which is highly appreciated by modern society.

With respect to human capital of Jahai men, they have in-depth knowledge to find forest resources that can be sold to raise money. They entered the forest at a certain time, but its duration is not fixed. It depends on the accessibility of forest resources, types of forest resources and climate. For example, to collect sandalwood, it takes a time and forcing them to live in the forest. This is because a forest resource is difficult to obtain and require special skills. Furthermore, the growing lack of resources and require them to explore the forests farther to obtain it.

Despite the difficulty in gathering forest products, they do not explore irresponsibly. They only exploring for the resources of sandalwood. They were familiar with the forest environment and be able to trace back a location with sandalwood they've visited before this even without the help of modern equipment and mark a clear direction. In addition, they are also able to track the new location even though there are times when they cannot take their source due to the immaturity of sandalwood or taken by others, especially strangers. Elements of human capital in this form is unique because it is difficult to assess or explained, but it can only be felt through intuition trained through the routine of daily life in the forest.

By contrast, the rattan resources that are the bulk and weight, it is often more difficult to carry out. However, now dwindling demand for rattan. Jahai also still use blowpipes as the main tool for hunting wild animals such as squirrels, birds, monkeys and other animals. These traditional skills are becoming less Jahai owned by young people. One was that they felt they should not rely on these weapons to find food, some even worry about toxins in the affected blowpipes on their self. However, often times Jahai bring together antidote blowpipes when they went into the forest to hunt.

#### 4.2 Education and Spiritual development

Indigenous communities are natives and still lagging behind and are often ignored in education. The majority of the public still considers minority consisting of approximately 180,000 people (2010 census) does not want the development (Berita Harian, 2012). The data show that the Orang Asli's education is in a critical situation. The level of education they have recognized is still far behind compared to other races where the ratio of those eligible to Institutions of Higher Education and the school is still at a low level. Therefore, to uplift the standard quality of education among indigenous peoples, JAKOA for example has taken initiatives to encourage educational programs, training and mind development amongst children, teenagers and indigenous youth as a preparation towards leaving their dependency towards land-based economy. Various efforts have been undertaken by the government, particularly the Department of Orang Asli (JAKOA) to improve the quality of education of the indigenous people in the country. Now, the Orang Asli in Malaysia is undergoing a process of transformation as compared to 10 years ago. For the adult, several steps have been taken to change the life of indigenous people. According to Nur Iliya (2014), Department of Orang Asli (JAKOA) Kelantan and Terengganu are targeting a total of 5,000 heads of households participating in Adult Class for Indigenous Peoples (KEDAP) in year 2015 and 2016. KEDAP program is an initiative of the government to ensure that the Orang Asli get quality education. When the KEDAP is in place since 2008, is now the number of illiterate adults in indigenous communities are declining, but it gets better when the response has been encouraging. Strictly speaking, until now only 10 schools in the country offering KEDAP program and it will be added after witnessing tremendous interest and success among them.

Therefore, the indigenous people in Royal Belum also not left behind in the country's education. A national school Sungai Tiang was developed in 2005, in which indigenous children were sent to get them the best possible education. However, before the school is indigenous children were given special classes are held three times a week either in the hall or under the trees by the staff of the Department of Orang Asli (JAKOA) who give guidance in writing, reading and arithmetic. In addition, there are also private parties to build a toy library for children under 6 years. For adults were held KEDAP program organized by the Ministry of Education since year 2010. Through this initiative, nearly 90% of people Jahai at Royal Belum was able to write, read and count.

In spiritual development, almost 99% of indigenous people still practice the religion of animism and 1% are Muslims. Although, the majority of tribes still practice animism Jahai but the JAKOA have to persuade them to stay in a methodical manner and not nomadic in the belief held by them. For a family of Muslims, Islamic Religious Department plays its role in terms of religious education. In order to change the way of Orang Asli thinking, they has done various initiatives to educate Orang asli usually related to religious education. They will come during the school holidays to provide a deeper understanding more about Islam to them.

### 4.3 Socio-economic development

Indigenous community in Kampung Sungai Tiang Jahai continued subsistence-oriented economic activities using traditional approaches. Economic activities carried out by the tribal community in the village Jahai categorized into three sectors namely job of the government sector, private sector and own. Generally, people in the village still practice traditional economic activity that aims to raise money and economic self-sufficiency activities that fall within the work itself.

Fig. 1 shows the indigenous community economic activities in the village to support their daily lives. There are 3% of Jahai people in the village work with the government sector that is working with the Perak State Parks Corporation (TNP) as a forest ranger in the Royal Belum State Park. This become as a source of income and their economic activities, they earn a monthly income from the corporation. In addition, 17% of indigenous people in Kampung Sungai Tiang earn their living by running economic activity in the private sector as the daily boatman for tourists both from within and outside the country to the tourism area around Royal Belum State Park. Normally, the boatman from Jahai tribe will fetch tourists from the Jetty at Temenggong Lake to tourist attractions place surrounding Royal Belum State Park such as a campsite at River Site and others.

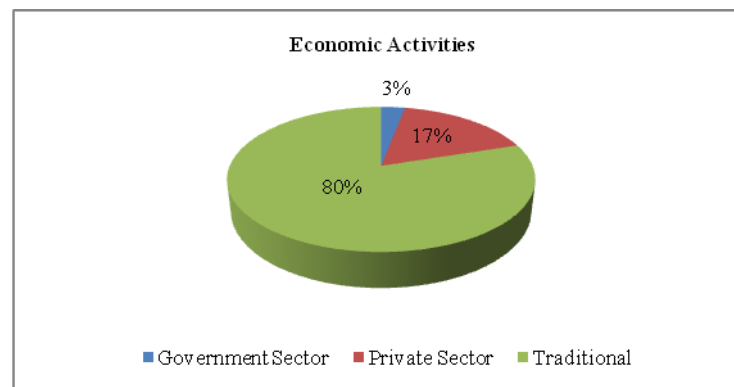


Fig. 1: Economic activities among Jahai tribes

The main economic activities Jahai community in Sungai Tiang and Sungai Kejar village is to carry out subsistence activities or activities are generally based on "reasonable life" which represents 80% of the villagers such as fishing, hunting and farming of animals shown in Fig. 1 above. However, the results of this fishing activity just to feed themselves and not sold because of the results obtained is barely sufficient for their family. Normally, these fishing activities carried out in the surrounding area and sometimes they go to more distant areas to get more results. In addition, there are a handful of Jahai peoples depend on forest resources for their source of income and living their daily through proceeds from the sale of forest resources and making crafts from forest resources collected.

### 4.4 Infrastructure development

Development of infrastructure facilities in Kampung Sungai Tiang was started in 2008 after the gazetted by the government in 2007. The infrastructure facilities have been developed in this village with the help of the Department of Orang Asli (JAKOA) to facilitate Jahai community in the village for their daily lives. Fig. 2 below shows the development of infrastructure in Kampung Sungai Tiang since 2007 to the present, 2014. This development is categorized into three namely infrastructure facilities, energy supply facilities and water resources.

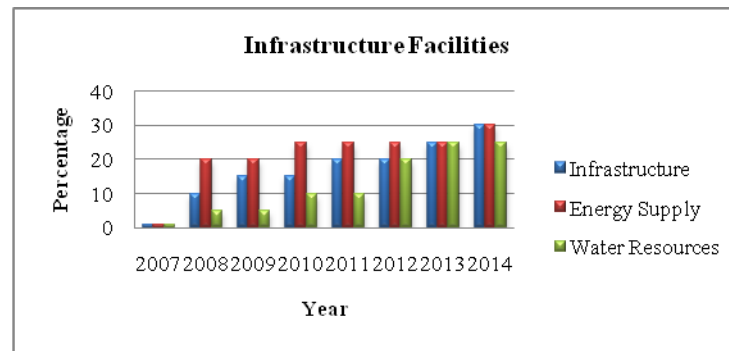


Fig.2. The infrastructure development at the indigenous villages in Royal Belum State Park

Development of infrastructure facilities has been developed since 2008 by about 20 percent. However, no change in terms of infrastructure development in the village is simply an increase of 10 percent until 2014. The infrastructure facilities available in the village it is a clinic, toy library, musollah, playgrounds, schools and council for indigenous peoples in both villages. Showing two of the existing infrastructure can be seen in Fig. 3. The infrastructure facilities can help improve the education and health status of indigenous peoples Jahai. While facilities for energy resources, each dwelling Jahai community has solar energy and generator facility to supply electricity at night. The construction of water tanks in each dwelling as well as water supply facilities for the residents of the village. It can facilitate the use of water daily population for the purpose of cooking and so even if the water source is the river water tank. This infrastructure development has improved the quality of human capital in Jahai society, such as school and toy library has improved the quality of their children's education and health centres and clean water can improve your quality of their health.



Fig.3. Infrastructure at Kampung Sungai Tiang

## 5. Conclusion

Elements and the quality of human capital vary by indigenous tribes, time and place. But the difference is actually more associated with habitat and environment of their locality. For example, people Jahai associated with forest resources. Nature and quality of the human capital of each community is unique and special because based on the physical background of each dwelling. Although numerous residential area indigenous community who explored and developed. The process of passing traditional knowledge and skills to exploit the natural resources around them continues. This is a manifestation of their attachment to the physical environment. Therefore, any sudden change of indigenous residential environment should be swallowed. This is because it can affect the quality of their human capital. Although there are new elements, but traditional knowledge and skills that make up the human capital indigenous communities continue to be maintained. This is because it involves the survival of social, psychological and economic Orang Asli.



Indigenous quality of human capital is not formed immediately but takes a long time through a process of continuous learning and inheritance. Therefore, the developmental work carried out on them to take into account the fact that they are still tied to the environment. Abrupt changes on their residential habitat are not much help to their community. The factor is the degree of dependence on the physical environment, which is very high; profound wisdom about nature in surround area; transfer of knowledge and skills inherited from one generation to the next generation; occurrence mix of knowledge and skills among indigenous peoples; and their desire to continue their identity as indigenous. The efforts made by the Government of Malaysia in developing Orang Asli educationally, economically, socially and also in terms of infrastructure are vital.

Human capital formation takes a long time. Process development work done on them can lead to both positive and negative effects. The positive effects are indigenous can change even take a long time. While the negative effects are threatened traditional knowledge and skills that make up the human capital they inherited a long time. Development that does not take indigenous sensitivities, particularly with regard to the residential environment into their habitat by generations, can threaten their future. This is because the environmental and indigenous peoples are two integral parts, and cannot be separated. Instead, efforts to protect the environment, traditional knowledge and skills should be done with the indigenous people collecting, recording and preserving all the elements of human capital to ensure the authenticity and sustainability.

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# Factors Influencing Knowledge Management in Islamic Banking Industry in Malaysia

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## Abstract

Nowadays knowledge management is an important asset that acquires high attention in all industry including Islamic banking industry. Managing knowledge is an essential process for gaining and sustaining competitive edge and organizational survival. This paper aims to study factors which have impact on management of knowledge within the banks operating in Malaysia. In addition this paper also shed some lights to some important factors of knowledge management in Malaysia by providing a picture of knowledge management status especially amongst Malaysian Islamic banking. The findings could help top managers to develop the appropriate agenda for ensuring success of knowledge management initiatives.

*Keywords:* Knowledge Management; Knowledge; Factors; Islamic Banking; Malaysia

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## 1. Introduction

From the business perspective, an organization's success to a great extent depends on its capability to leverage knowledge and produce value from its knowledge resources. To facing important challenge, every organization operates within some industry and adopts a competitive position within that industry and every strategic position is linked to intellectual resources and capabilities. Due to the intense global competition, the most important managerial context for investing in and promoting the use of knowledge management is the corporate strategy (Chaudhary, 2012).

Therefore, many banks are now moving towards becoming a knowledge-based organization due to the globalization of the financial markets. They have begun to realize the importance of knowledge and the role it plays in bringing up the value of the banks (Leng and Nasaruddin, 2006). In order to compete and become successful in the banking industry, a bank must know how to manage their intangible sset, which is called "knowledge". The practice of learning and managing knowledge is generally known as knowledge manaaagement. There is a trend where knowledge management is getting more important as it creates and brings value to organizations.

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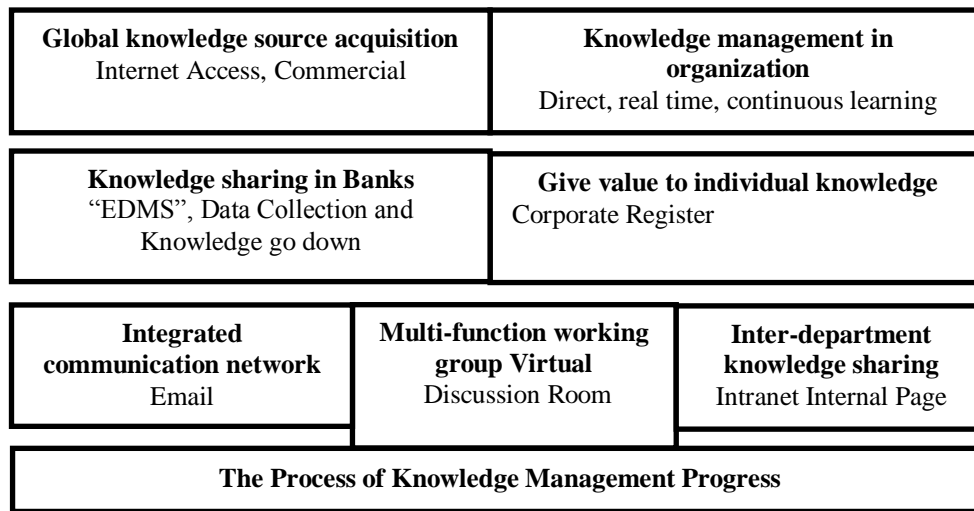


Figure 1: Knowledge Management Progress (KMPs) (Bank Negara Malaysia, 2004)

Figure 1 shows that technology playing important roles in managing data and information before they are transformed into knowledge (The Central Bank of Malaysia (BNM) is of no exception. The knowledge management progress at this organization focuses more on IT tools in their knowledge management initiative. However, according to Leng and Nasaruddin (2006) knowledge management is not a technology, it involves various components, namely people and process. In a banking environment, there are basically four parties representing the people component, which are the investors, bank workers, customers/clients and the managerial levels as shown in the Table 1 below.

Table 1: Examples of the Related Parties

Party	Examples
<b>Investors</b>	Shareholders, Unit Trust investors
<b>Bank Workers</b>	Clerical staff, helpline operators, executives, officers
<b>Customers/Clients</b>	Credit card holders, insurance holder, saving/current account holder
<b>Managerial Level</b>	Board of directors, branch manager

A lot of banks are currently satisfied with their current documentation system, management system, file system or any system that assisting in their daily operations. With the current technology all these systems can actually be upgraded into a more efficient system. Surprisingly, given the importance of the financial industry that were contribute to the country economy, relatively there is only little research or implementation of knowledge management being done in the banking industry especially Islamic banking industry. This paper comes with two perspectives:

- To identify the knowledge management approach in Malaysia Islamic banking industry.
- To determine the factors influencing knowledge management in Malaysia Islamic banking industry.

## 2. Literature Review

### 2.1. Concept of knowledge

Knowledge is the key element or initiatives in knowledge management in any industries. The era of knowledge-based today's have been force banking institution putting knowledge as one of the competitive advantages. Landscape and the environment in banking and finance industry have acquires worker knowledge-oriented (Hafizi and Hayati, 2006). In principle, basic of knowledge is related to data, information, philosophy, and wisdom (Allee, 1997). Starting from the incoming data has transformed into a set of information. Information is data that is intertwined with other data and information becomes knowledge when it began to be

analyzed, the information associated with each other and compared with what is already known. To understand the chronology of knowledge management, understanding of data, information and knowledge should be explored.

Warier (2003) states that knowledge is full utilization of information and data, coupled with the potential of people’s skills, competencies, ideas, intuitions, commitments and motivations. Indicates that knowledge mean is information and data help that’s organization to solve their problem. Knowledge is presented in ideas, judgments, talents, perspectives and concepts of every individual. Knowledge resides in an individual brain or is encoded in organizational processes, documents, products, services, facilities and systems. Knowledge is the result of learning which provides the only sustainable competitive advantage. Figure 1 below shows the relationship between data, information and knowledge.

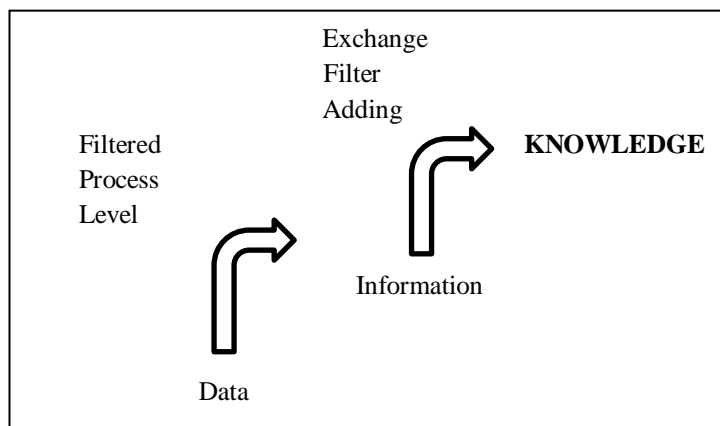


Figure 2: The Relationship between Data, Information and Knowledge.

According to Nonaka et al. (2001), knowledge can be divided into two types; tacit knowledge and explicit knowledge as shown in Table 2 below:

Table 2: Tacit Knowledge vs Explicit Knowledge

Authors	Tacit knowledge	Explicit knowledge
<b>Nonaka et al. (2001)</b>	<ul style="list-style-type: none"> <li>• Very private and difficult to interpret.</li> <li>• Shaped actions, procedures, routines, commitment, ideas and emotions.</li> </ul>	<ul style="list-style-type: none"> <li>• Can be expressed in terms of language and shared form of data, scientific formulas, specification.</li> <li>• Can be processed, transmitted and stored easily.</li> </ul>
<b>Van den Bosch and Van Wijk (2001)</b>	<ul style="list-style-type: none"> <li>• It is difficult to explain and teach as enshrined comes from personal experience.</li> <li>• Establishment of rules and routines.</li> </ul>	<ul style="list-style-type: none"> <li>• Not change as articulated codified and taught. Easy to move.</li> <li>• Most are built on the basis of shared knowledge.</li> </ul>
<b>Voebek et al. (2001)</b>	<ul style="list-style-type: none"> <li>• Available on the leader or professionals in organizations such as experience, idea, regulations and management model which are only qualifies them to know.</li> </ul>	<ul style="list-style-type: none"> <li>• Documented and structured knowledge, within easy reach of a difference medium.</li> </ul>

## 2.2 Knowledge Management in Malaysia

Knowledge management in Malaysia still in the infancy stage compared to the other countries. Very few organizations have actually initiated the knowledge management program. Sharing is an essential important practice in order to ensure that knowledge management program successful which is a profound implication for practitioners (King, 2009). Unfortunately, Malaysian does not seem to practice sharing in their environment. At the same time, employees will always be conscious of the appropriateness of their contribution; superiors on the other hand would be cautious to ensure that their comments do not reveal their lack of familiarity of the subject. The result of a research conducted by Catherine Gwin found that there is possibility of superficial exchange of knowledge which not in line with the whole idea of knowledge-sharing (Gwin, 2003).

Table 3: Examples of Banking operated in Malaysia

Category	Examples
Central Bank	Referring to BNM
Universal Bank	CIMB Group, Maybank Group
Malaysian Bank	Affin Bank Bhd, AmBank Bhd, RHB Bank, Public Bank Bhd
Foreign Bank	Bangkok Bank, HSBC Bank Malaysia Bhd, UOB Bank (M) Bhd, The Standard Chartered Bank (M) Bhd
Investment Bank	Affin Investment Bank Bhd, OSK Investment Bank Bhd, CIMB Investment Bank Bhd, RHB Investment Bank Bhd, Public Investment Bank Bhd
Islamic Bank	<i>Hong Leong Islamic Bank Bhd, Bank Rakyat Bhd, Bank Simpanan Nasional Bhd, Bank Muamalat (M) Bhd, Bank Islam (M) Bhd, MayBank Islamic Bhd, RHB Islamic Bhd, AmIslamic Bank Bhd, CIMB Islamic Bhd,</i>

Table 3 shows that Islamic Bank in Malaysia has expanding, and contributing a lot to the economy. Bank Negara Malaysia (BNM) has realized the importance of knowledge management, and has set up its' own knowledge management team. Bank is a financial institution that functioning as a payment agent for customer to borrow and lend money. In Malaysia, BNM is the central bank mainly to ensure the stability of Malaysia financial status and act as an advisor to the government.

Although around 18 years after the financial crisis have bring major impact on Malaysia economy, progress in reforming its financial status ever since has been affected. According to BNM (2011) many restructuring plans have been executed by Malaysian banks including Islamic banks to modernize and compete more effectively with the foreign institutions and together achieve the government's mission to ensure that Malaysia being an Islamic banking hub of the world (Malaysia Islamic Financial Centre (MIFC), 2008).

According to Zhou (2006), knowledge management strategy could solve the following main problems:

- 1) Employee's intelligence and information cannot be shared and information required cannot be achieved. It is rather difficult to capture employee's knowledge which embedded in the daily operations.
- 2) Having poor organizational memory, the banks cannot learn well from the past. They keep losing the knowledge of an expert due to their resignation or retirement.
- 3) Legacy computer system may lack the capability and flexibility to adapt to a rapidly changing business environment.

Moreover, knowledge management strategy brings the benefits to the banks which it may foster innovation by encouraging the flow of idea. Besides, it can improve customer service and efficiency of risk management by streamlining business process and enhance employee retention rates by rewarding employees for the value of their knowledge. Even though knowledge management is a fairly new field to banks in Malaysia, but a lot of effort have been put into it recently (Wettayaprasit *et al.*, 2005). This is the crucial issues that aim to obtain benefit from bigger economic scale and the potential for synergy in order to compete effectively and efficiently with other banks.

### 2.3 Knowledge Management Practices

The knowledge management (KM) practices which also known as knowledge management process could be defined as observable organizational activities that are related to knowledge management. It is an interrelated set of various business process developed in an organization to create, store, transfer, and apply the knowledge. A knowledge management practice, the first stage is knowledge acquisition, knowledge creation, knowledge storage, knowledge distribution, knowledge use and knowledge maintaining (Allee, 1997, Bhatt, 2001, Zheng, 2005 and Hafizi & Zawiyah, 2011).

There are several KM dimensions that have been implementing in banking industry according literature past study. The dimensions are follows:

#### 1) Knowledge Creation

This is the process that knowledge has to capture and define. Explicit knowledge can be easily captured and put in the form of a manual, booklet, or document. On the other hand, tacit knowledge is embedded in social structures, and therefore, it needs to be extracted, codified, and made explicit. Through this codification process, tacit knowledge is transformed into explicit knowledge.

#### 2) Knowledge Acquisition

Knowledge acquisition captured by six factors: i) Valuing employees attitudes and options; ii) encouraging employees to up-skill; iii) having a well-developed financial reporting system; iv) being a market focused by actively obtaining customer and industry; v) being sensitive to information about changes of market place and doing auditing such as assessment; and vi) review and examine the knowledge base to ensure the current situation being experienced by the organization.

#### 3) Knowledge Sharing

Sharing is occurring when having a communication process. Both of explicit and tacit knowledge can be shared. However, explicit knowledge can be shared easily and will have little risk of creating error in the process. Tacit knowledge, which is hard to articulate, is the challenging part of knowledge sharing. In any case, sharing should be as direct as possible with few intermediaries.

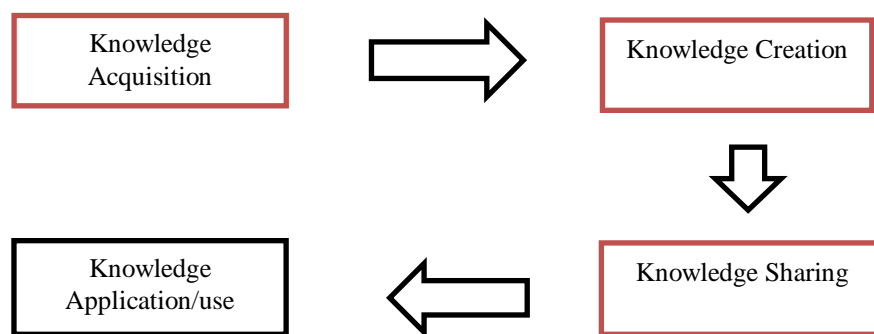


Figure 3: Knowledge Process Model

The effective of knowledge management can be analyzed from the perspective of the process (Zheng, 2005). Figure 3 illustrates the process of knowledge management which starting with the process of knowledge acquisition. Knowledge acquire through various resources either by individual or organization. Further development of the knowledge which focuses of the increasing knowledge among worker had begun. Then sharing knowledge occurs in targeting relevant knowledge. Use the knowledge gained can assist an organization or individual applying knowledge acquired.

Therefore, it is important to know that knowledge management has been developed and already done by previous studies not only refers to information technology, but also pay attention to the strategic aspect,

personnel, organization and culture of the organization. In addition, knowledge management is the preparation and management of operational processes to ensure that knowledge to meet organization's objective and strategy.

#### 2.4 Factors Influencing Knowledge Management Implementation

Development that occurs in business world has led organization to take operational administrative strategies through knowledge management. This is because, organizational that practices the knowledge management can improve the customers satisfaction by reducing the time to deal either over counters or online phone service, improve productivity and quality in organizations. In addition, knowledge management also can help organization improve efficiency and effectiveness performance, enhance market position by operating more intellectual in the market, enhance communication between knowledge workers, increase synergy between knowledge workers and allow the learning process being more effectively and efficiently.

Previous studies had identified the critical success factors that affect the implementing process of knowledge management between employees and the organization. Each of these factors is importance in the success of knowledge management in organizations:

##### 1) Technology

Technology is one of the ways to achieve a well approach towards the knowledge management. As the past, it will support the communication to work, facilities the acquisition of information or knowledge and not just retentive the information (Low et al., 2001). The development of information technology is able to drive across a range of levels (Martensson, 2000). This development in organization enables to promote human resource sharing and generate the knowledge that they have. Explicit knowledge can be encoded and stored in organizational intranet or other medium for workers using in future. The uses of intranet, internet and extranet has been prove effective on human resource capacity to share knowledge.

Technology is a very significant role in knowledge management is played by knowledge management system as without its very hard to have a value added of knowledge management. A sustainable competitive advantage can surely be achieved through management of knowledge so this fact has led many organizations to adopt KMSs which are source knowledge sharing as well as integration of knowledge (Danish, 2014).

##### 2) Culture

People use according what they believe, values, assumptions and norms as a guide that helps them to perform their daily activities. Every organization's culture is distinctive, and it influence the way people perform. Culture should be such that provide flexibility, social interaction, trust and so on. Organization culture is very important towards coordinating the sharing, learning and knowledge generate by organization (Gupta and Govindarajan, 2000).

Working environment is a place where organization culture prevails and people communicate and perform their work accordingly. The organization culture is evolving and complex in nature. It explains how people cooperate with each other and work together. According to Kuo (2011), culture of an organization formed the partnership is influenced by 80% compare to technology that only influenced by 20%. Therefore, it is important for the organization to have a culture that is appropriate to sharing of knowledge.

##### 3) Leadership

Knowledge management responsibility lies not only on employees but also on senior managers who need to create an environment that encourages the creation, generate and sharing the knowledge. Leader or manager is important as a model to ensure the enforcement of environmental knowledge management. According to

Debowski (2006) said that in order to motivate knowledgeable people, to build communication channels, guides others to share knowledge and to make efforts to make the process effective is the prime role play by the knowledge management leader. In other hands, leaders are the people that can elaborate the basic goal of managing the knowledge to the knowledgeable employees and to guide them towards the right path in achieving those goals.

The encouragement of senior or leaders in the process of learning may assist organization develop networking and skills workers in implementing the goals of the organization. Therefore, it is important for leaders to understand who has the knowledge and further develop system that support the generation and application of knowledge. Behavior and leader's style greatly influence the attitudes of employees.

### 3. Methodology

This paper is a desk-based and library-oriented. To find out the development in the knowledge management practices by Malaysia Islamic banking, the researchers have surveyed available literatures from books, reports, conference proceedings, articles, and journals that were related to the issues. The paper has been structured in the light of the research objectives.

### 4. Findings

Knowledge management has been gaining since early 21<sup>st</sup> century however it has gained more focus as western organizations have realizes as a key source of competitive advantage. In banking industry, this strategy still infancy and needs to research and development. The fact is large attributed the organizations are merely preoccupied with technology infrastructure, failing to focus on the knowledge management practices and tools. The choice of banking industry was based on the belief that KM is very important for financial institutions, as various literature sources have indicated. It also be noted that Islamic banking in Malaysia is growing fast, offering a wide range of new products and services.

There are several of models that studied for KM and was implemented in banking industry is Bank Knowledge Management Model (BKKM) which combination of environment, people and technology that functioning for transform information into knowledge toward structures the products and services among the industry.

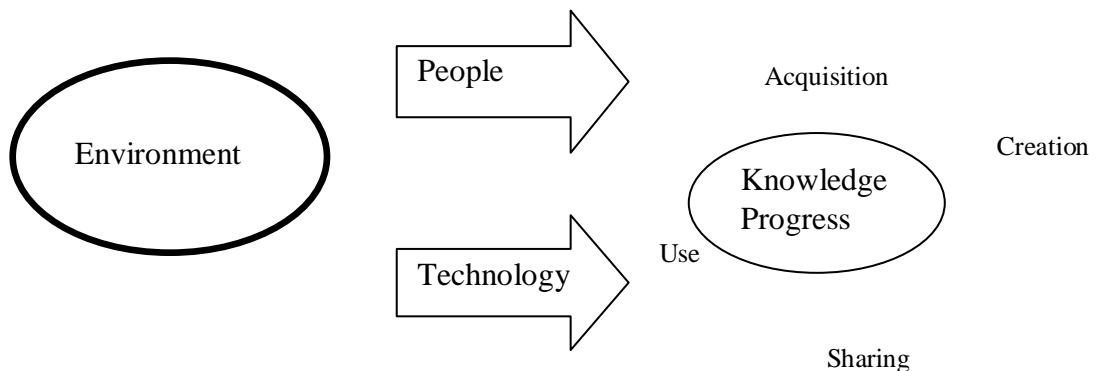


Figure 4: Banking Knowledge Management Model (BKKM)

Figure 4 shows the components that the comprise in BKKM such as environment, people, technology and knowledge progress including four knowledge practices such as knowledge acquisition, knowledge creation, knowledge sharing and knowledge use. Table 4 below will summarize bout the components that includes in BKKM.



Table 4: Summary of Components that includes in BKKM

Environment	Circumstances and available knowledge
People	Communication between the staff, embedded knowledge
Knowledge Progress	Knowledge related work
Knowledge acquisition	Obtaining from internal and external sources
Knowledge creation	Capture and define knowledge
Knowledge sharing	Communication both either explicit and tacit knowledge
Knowledge use	Functioning as network system by transfer knowledge

2000      2004      2007      2009      2011      2012...



Figure 5: The Knowledge Management model that apply in Bank Negara Malaysia

Knowledge management is actually rather new in banking industry of Malaysia. All the while, there are a lot of hidden knowledge or inside knowledge that have not been explored. In conclusion knowledge management is an effective way for Malaysian banks to build up the competence in the market not only to compete with foreign banking institutions but also gaining reputation in the eyes of world. Although there are many ways that organizations structure governance of their Knowledge management initiatives, BNM has found common elements among the best practices in order to sharing and expanded the knowledge. Figure 5 illustrate that leadership is a key in ensuring success in almost initiative within organizations (Hasanali, 2002, Wong, 2005 and Danish et al. 2014). There is nothing makes greater impact on organization than the leaders' model behavior they are trying to promote among subordinates.

In order to further elaborate knowledgeable people, leader is the people have to stand front the subordinate to build the communication channel, guide others to share knowledge and to make efforts to make the process effective is the prime role play by leader. By this, leader can elaborate the basic goal of managing the knowledge to the knowledgeable employees and guide them towards the right path in achieving those goals.

### 5. Conclusion

The role of knowledge management in the Islamic banking industry, like other management concepts depends upon its ability to contribute to stakeholders' value. There are little quantitative data exist on how to manage

intangible knowledge that directly impact on the organizations. However, the organizations cannot create knowledge without support from their employees or individuals. Large bodies of organization subjective evidence suggest managing knowledge as systematically matters. Banks rely on the ability of their employees to make good decisions, on the ability of the banks to meet customers need more efficiently and on the ability to continually innovative for the benefit of shareholders' value. In banking industry, the goal is to create a hybrid design for its knowledge management practice that synthesizes the "right" combination and balance of the tacit and explicit knowledge management approaches.

The "right" combination and balance may consist of number of factors such as the technology of organization used, knowledge intensity which are the strategies and operation used by organization, the resources that organization invest in developing infrastructure and processes for its knowledge management practice, the degree of geographical dispersion its' knowledge workers. Organizations that do not implemented systematic knowledge management approaches should start with the practices of implementation by always create organizational interest and energy for developing more extensive knowledge management practices. The implementation should be seen and communicated within the organization as the first step in evolving management process that will eventually include more formal and systematic process.

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# The Role and Nature of Communicative Interactions between Caregivers and Care Receivers in Healthcare Management

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## Abstract

Communication, in the form of verbal, non-verbal or both verbal and non-verbal forms, functions to transmit information and allows individuals to interact with one another. In medical settings, communication plays a vital role in assisting, influencing and promoting the healthcare management process. In the case of healthcare givers, via communication, information can be effectively gathered, given and understood in order to provide appropriate medical care. For care receivers, it allows them to communicate medical needs, as well as to express and share their feelings and concerns.

This paper is organised in two parts. First, the authors will explore the concept and role of communication in healthcare delivery and address the issue of how effective caregiver-care receiver communication is vital in attending to and fulfilling not only patients' physical, but also their psychological and social needs. Next, this paper also includes a description of an ongoing case study aimed to examine verbal communicative interactions between six patients undergoing routine dialysis treatment and their care-givers at a non-governmental organization-run (NGO-run) haemodialysiscentre in Kuala Lumpur.

*Keywords: communication; healthcare management; caregiver-care receiver: verbal interaction*

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## 1. Introduction

Communication in the form of verbal, non-verbal, or both, allows individuals to interact with one another. Interactive communication between individuals involve the sender and the receiver exchanging messages that function to inform, express, motivate and regulate as well as coordinate. Therefore in any form of communication, what message is sent, how and whether it is sent and received as intended is vital in determining whether communication takes place successfully. Effective communication is achieved when messages are delivered, received (interpreted) and responded to appropriately.

The importance of effective communication is evident in medical settings. For healthcare providers, whether physicians, nurses, therapists or other health professionals, communication allows information to be effectively gathered, given and understood in order for appropriate medical care to be delivered. In the case of care receivers, namely patients, they are able to express their medical needs, as well as express and share their feelings and concerns via communication.

As the medical service industry continues to strive for improvement and better standards of quality, evidence appears to indicate that person-centred approach in healthcare management represents a more desirable alternative to the functional approach. The approach that focuses on patients, rather than their medical condition has been found to directly benefit the patients through promoting well-being and recovery. The recognition of the role of communication as being central in achieving person-focused approach has led to an upsurge in research in interaction between caregivers and care receivers. In a systematic review that studied the association between communication and constructs of therapeutic alliance, Pinto et al. (2013) suggested that patient-centred interaction helps health professionals to engage with patients in the treatment process "by listening to what they have to say, asking questions and showing sensitivity to their emotional concerns" thus forming a therapeutic alliance that positively influences treatment outcomes.

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Successful communication among care providers and patients, as well as their family members is not only necessary in providing the most optimal physical care that patients need, but can help provide emotional support, hence reducing patients' and their family members' anxiety (Baile et. al., 2000). A review on the link between treatment satisfaction and adherence to treatment, evidence appears to be available that communication facilitates to improve patients' satisfaction and treatment compliance. Through effective communication, health professionals (in this case, doctors) are able to provide early detection and intervention of health conditions resulting in higher patient satisfaction and improved outcomes, and better adherence to medical treatment. This in turn, would have positive impact on their health conditions (Communication in Health Care Services, 2013; Fong, 2010; Clack, 2004).

In another review of twenty-one studies on the relationship of effective doctor-patient communication and patient health outcomes, 16 studies demonstrated a positive correlation suggesting "effective communication exerts a positive influence on ... symptom resolution, functional and physiological status and pain control" among patients (Stewart, 1995). Almost two decades later, Fong echoed this conclusion. While the ultimate goals of effective doctor-patient communication helps ensure that the delivery of the best possible care to the patient in that it facilitates better understanding of the patient's condition, needs, perception and expectations, as well as facilitates in regulating their emotions (2010).

In a study to investigate the relationship between doctors' interaction and patients' reported satisfaction with primary medical care that they received, doctors who were rated the highest in patient satisfaction reports were those who practised high person-focused interaction (Flocke, 2002). Person-focused doctors communicated at a more personal level, connected with their patients and were perceived to focus more on the person than on the disease. They were also perceived to be more likely to allow patient involvement in both consultation and decision-making process. These attributes in turn contributed to influence treatment outcomes positively such as in improvements in health conditions (Hall, 2010).

The functional as well as the affective aspects of effective communication is also well documented in nursing care literature. Effective communication facilitates nurses in the process of managing patients' conditions in that it not only allows optimal management of medical care, but also aids in building positive relationship that enables both care givers (nurses) and care receivers (patients) to provide and ask for emotional support and shared feedback. On the other hand, poor communication often resulted in failure to provide essential physical and emotional support, which consequently resulted in higher patient distress, hence contributing to poor health outcomes (Reynolds, 2000). Weaver (2010) pointed out that effective caregiver-care receiver communication which empowers patients can be achieved when caregivers are able to overcome barriers of conflicting values and differences. Awareness of and identifying with their patients' physical, psychological and/or social barriers will further enhance communication effectiveness, consequently leading to more positive health outcomes.

However, communication between caregivers and care providers has its share of problems. Flocke (2002) noted that while person-focused approach in healthcare is generally recognised, more doctors were focused on the patients' disease and were likely to demonstrate low levels of communication effectiveness. These physicians in turn were found to be considered as less friendly, and were more likely to dominate communication. In addition, they were less likely to engage their patients in negotiating treatment options and decision making. This finding appeared to be supported by Berry (2009). In his content analysis study, a majority of nurse practitioners still did not practise patient-centred communication, but instead tended to communicate with their patients for instrumental purposes, such as in giving instructions and discussing schedules. They also tended to restrict patients' contribution to the communicative exchange by using more close-ended questions.

Similarly, a study conducted among Iranian nurses found that they were more task-oriented and focussed on routines rather than on their patients' psychosocial needs. The author also noted that issues such as perception of socio-cultural and economic differences, interfering families as well as concerns and limitations of information that they can share with the patients acted as barriers to effective communication process between caregivers and

care receivers in Iranian hospitals (Fakhr-Movahedi, 2011). The goal of communication would fail if nurses were unable to overcome barriers of conflicting values and differences and identify with the physical, social and psychological needs of their patients (Weaver, 2010).

In a nutshell, a survey of studies on healthcare communication found that effective interaction between health professionals, whether they are physicians, nurses or therapists, and their wards is therapeutic. It facilitates the process of managing patients' conditions in that not only does it allow optimal management of medical treatment, but also build positive relationships between the two parties. It also enables the two parties to provide and ask for support and share feedback. In short, effective communication has a role in creating a sense of well-being among patients, hence improving the healing process. Without a doubt, it is a major component in the process of health care management.

## 2. The Case-Study

The second part of this paper contains a description of an ongoing case study aimed to examine verbal communicative interactions that took place between patients and their care-givers at a medical facility in Kuala Lumpur. This casestudy was a part of a larger study exploring caregiver-care receiver communication and patient empowerment. During the course of conducting the latter, the authors were presented with rich data of which a decision to examine the content of communicative interactions between participants was made. Hence, the present case study seeks to establish the nature of verbal communicative interactions between caregivers (in this instance, nurses) and care receivers (patients) who were undergoing routine dialysis treatment at a non-governmental organisation-run (NGO-run) haemodialysis centre.

A qualitative approach was employed to provide insights and understanding to the nature of interactions that took place among patients undergoing long-term routine treatment and their regular caregivers. The study involved participants at the NGO-run haemodialysis centre in WangsaMaju, a small township within the city of Kuala Lumpur, Malaysia. Six end-stage renal failure patients undergoing routine dialysis treatment were identified. The participants, consisting patients (care receivers) and nurses (care givers) at the dialysis centre were selected using purposeful sampling method to gather in-depth data. The final selection of care receiver participants was made by the Head Nurse in charge of the facility using the following criteria:

1. Not verbally incapacitated
2. Aged 40 years and above
3. Regularly attended scheduled dialysis treatment
4. Hadbeen undergoing dialysis for no less than 3 years

Priority was also given to those in the low income group, as the authors and the Head Nurse agreed that the cash incentive given would benefit them more. The care receivers that were eventually selected were three male and three female patients with age ranging from 53 to 68 years. The caregiver participants were all staff at the centre which had 15 registered nurses who rotated on three shifts of four nurses each. Average duration of experience attending to dialysis patients at the centre was three years.

Data collection was conducted in the day-ward at a haemodialysis centre run by a non-profit organisation subsidised by the Malaysian Health Ministry. It took place between March and June 2014 as a part of the larger study mentioned earlier. Upon approval from the relevant authority and patient identification, six patients signed consent forms after they and their family members were informed of the purpose of the study. In order to gather rich in-depth data, a total of 42 observations of communicative interactions between six patients and their nurses were conducted. Each patient was unobtrusively audio-taped (6 sessions) and video-taped (1 session) while they underwent their scheduled dialysis treatment. Each recording session started at the beginning and finished at the end of a dialysis treatment and lasted for 4 hours, i.e. the duration of dialysis treatment for each patient at the centre. Three student Research Assistants (RAs) were employed and trained to observe and record interactions that took place between the patients and their nurses. Using a specially designed form, categories of communicative interactions were also rated. Credibility of observational ratings was randomly confirmed via

peer checking. As part of the larger study, a patient empowerment questionnaire was also administered on each patient participant as a means to gauge patients' perception on how much they are involved in their treatment (locus of control), their knowledge and understanding of their disease (awareness) and the behavioural and psychological efforts that they employ to manage their health conditions (coping strategies).

The content of verbal interactions between the patients and the nurses which totalled 168 hours of recording was then transcribed verbatim. The task was assigned to an experienced RA who was instructed to capture all verbal contents while non-verbal features of intonation, emphasis, speed or pauses were not transcribed. The transcripts were then reviewed to identify selections of interactions to be further analysed. For the purpose of the study, only selections involving caregiver-care receiver interactions were highlighted. These data were then analysed using NVivo 10. Verbal interactions (in the form of written transcription) were contemplated as units of analysis (condensed meaning units according to content and functions) and were analysed thematically.

As the present study is still on-going, this paper is unable to report completed findings at this juncture. However, initial data analysis had revealed that major themes existed. Caregivers' verbal interactions with their patients fell into two major categories: instrumental or task-focussed communicative functions, and affective-based or relationship building communicative functions.

## 2. 1. Task-based Communication

In the first category of instrumental or task-focused communication, verbal interaction took place for the purpose of delivering medical care, in this case nursing care. Communication evolved around exchange of information that was treatment-related. Verbal interactions made by participants were oriented to remarks that were instructional, seeking and giving answers and confirmation, explaining and clarifying, and behaviour change discussions. They also include decision-based exchanges such as in negotiating and implementing doctor's orders or administrative demands. The following shows excerpts of caregiver-care receiver interactions demonstrating verbal exchanges that were oriented towards the patient's medical care.

(Excerpt 1)

Nurse: *Tarik nafas. Perlahan....* (Inhale. Slowly....)  
Patient: *Ya* (Yes.)  
Nurse: *Siap. Sakittak?* (Done. Does it hurt?)  
Patient: *Tak. hehe.* (No. hehe.)  
Nurse: *Awal-awalajesakitkan?* (It only hurts at the beginning right?)  
Patient: *Ya.* (Yes)  
(Pause. Conversation then continued.)  
Nurse: *Sakitsikitna. Tarik nafas....* (It just hurts a little. Inhale.)  
Patient: *Ya.* (Yes.)

(Excerpt 2)

Nurse: *Dua-duatangan. Angkattangan.* (Both hands. Lift your hands.)  
Nurse: *Dah makan?* (Have you eaten?)  
Patient: *Dah.* (Yes.)  
Nurse: *PeningtakNenek?* (Do you have a headache, Grandma?)  
Patient: *Tak.* (No.)  
Nurse: *Barulepasmakankeapani?* (Have you just eaten?)  
Patient: *Barulepasmakan. Ada darahtinggike?* (I just finished eating. Is my blood pressure high?)  
Nurse: *Tak, tidak.... Ok lagi.* (No. No.... It's still ok.)

(Excerpt 3)

Nurse: *Makcik, nantijanganbengkoktangan ye.* (Aunty, do not bend your hand next time please.)  
Patient: *Ye. Macamni ye?* (Yes. Like this?)  
Nurse: *Macamni.* (Like this.)

Nurse: *Bolehlakhkalaunakkedepanmacamni. Haah.Tapijanganbengkok.* (You can move forward like this. Yes. But do not bend (your hands).)

## 2. 2. Affective-Based Communication

In the second category, verbal interactions that took place were affective-based. Communicative exchanges evolved around establishing rapport and trust, and building and maintaining social relationships between participants. This category can be further compartmentalised into two sub-categories: 1) socially-oriented communication, and 2) emotionally-oriented communication.

Socially-oriented verbal interactions included showing humour and sharing jokes, sharing and making personal remarks, making compliments, and conveying interest. The following are excerpts that demonstrate the above:

(Excerpt 4)

Nurse: *Abah, tadikanMidahkasimakantu.Sambal tusedap.* (Father, just nowMidah (patient's daughter) gave me the food. The *sambal* is delicious.)

Patient: *Iyeke?(Really?)*

Nurse: *CamneAbahbuattu?Abahbubuhtelurasin?Pecah ye?(How did Father make it? Did you put in salted egg? Break it?)*

Patient: *Pecah je.Pecahkuningtu, yang tutakmelekittu.Minyakbanyak.*(Just break it. Break the yolk, that's why it's not sticky. Lots of (cooking) oil.)

Nurse: *Pastu?(Then?)*

Patient: *Pastuterbalik-terbalikkan. Pastupotong-potong.* (Then flip it (several times). Then, cut it up.)

Nurse: *Oh...lepastumasukdalam sambal tu?(Oh... next, put it into the *sambal*?)*

Patient: *Sambal tuadakepahsekiloseengah.* (The *sambal* has one and a half kilos of clams in it.)

Nurse: *Banyaknya!(A lot!)*

In the following excerpt the exchange between the participants started on a humorous note with the patient admonishing herself for complaining about having to wait her turn for the nurse to insert tubings into her fistula, the surgically created blood vessel that enables blood to be transferred easier.

(Excerpt 5)

Nurse: *Jangandokponteng dah.* (As long as (you're) not absent.)

Patient: *Ni lahmasaalahnya. Mengadu-mengadu.Menyampahtu.* (That's the problem. Complaining.Terrible.)

Nurse: *Ni japlagisampailah.* ((I'll) be there soon.)

Patient: *Ha-ah, tulahCikSaadiahmalastu...* (Yes, that's what I don't favour.)

Nurse: *Confirm! (Confirm!)*

When treatment finally began, the interaction shifted to be more emotionally-oriented. Emotion-oriented approach involved empathic communication that validated the feelings of the patient, and provided emotional support that assisted patients in accepting and coping with the consequences of their medical condition.

(Excerpt 6)

Nurse: *Senjapaje dah.* ((You're) so silent).

Patient: *Diamaje la.* (Just being quiet.)

Nurse: *Melayanperasaanpulak.* (Deep in thoughts.)

Patient: *Orang kata ni ape, bendatu.Diarakamapakitabual.* (They say this thing records our conversation.)

Nurse: *Ah... (Ah...)*

Nurse: *Siappakai glove sekarang? ((You're) wearing gloves now).*



- Patient: *Ye la.Taktahansejuk.Tangansebelahsini.Macamkebas.Tangansejuk.*(Yes. Can't stand the cold.This hand here.Feels numb.Cold hand.)
- Nurse: *PergiMydin. Beli yang tebaltu.Stoking pun boleh.*(Go to Mydin. Get thicker ones.Get socks too.)

### 3. Discussion and Conclusion

Although the case-study presented above has not been concluded and conclusive findings have yet to be derived, initial examination of the verbal interactions that took place between the patients and their caregivers appeared to substantiate that communication plays a vital role in effective health care. The traditional role of care providers was focused on the delivery of medical care and little attention was paid to caregiver-care receiver communication processes. Kaplan (1997) referred to this biomedical model as the "Fix-it Model" where communication is seen more of a necessity to perform the tasks of identifying, diagnosing and providing remedy to illnesses. However, as health care management improves, rethinking the issue had resulted in a subtle shift in paradigm from a task-based model to more person-centred approach.

Kaplan (2002) later proposed an alternative to the "Fix-it Model" model, which he named "Outcomes Model" whereby the ultimate goal of healthcare was not just in managing illnesses and health condition biologically, but also to improve the quality of life and to extend life expectancy of patients. The alternative "Outcomes Model" helped rethink the role and impact of communication on a changing health care perspective. This model emphasized the patients' benefit and hence the person-centred approach.

Communication is identified as a cornerstone in the person-centred approach. It is through effective communication that not only crucial information can be gathered and shared, but relationship and trust between both care providers and their wards may be enhanced. This approach emphasized both on providing physical and mental care of patients, especially those with long term illness.

Hence, communication plays an essential role in addressing and fulfilling the patients' physical as well as their psychological and social needs. Via communication, caregivers and care receivers build relationships that may help create the sense of well-being, thus improving the healing process and the quality of life among patients.

While limitations of the present study are acknowledged, the current initial findings appear to provide support that communication does indeed play a crucial role to impact health outcomes. Effective communication and improved quality of communication is associated with better physical and emotional health of patients. Among others, person-centred approach which puts emphasis on communication improves patients' satisfaction and treatment compliance (Fong, 2010; Clack, 2004), reduces anxiety (Baile, 2000) and increases likelihood of patient engagement (Flocke, 2002; Hall, 2010, Berry, 2009). Person-centred approach to healthcare which emphasizes on therapeutic communication between health professionals and their patients facilitates, involves and supports patients and is associated positive health outcomes (Pinto, 2013)

In terms of implications, the eventual findings of the present study are expected to contribute to both theory and practise. On the theoretical level, it is expected to contribute to the growing body of knowledge on communication in healthcare management. It also addresses a new direction for research in communication. On the practical aspect, it points the need for further examination and understanding of the role of communication in the field of medicine as a deeper understanding will have positive implications for patients who receive care from health professionals. It will provide a framework for developing medical and nursing education curricula which highlights communication between care givers and care receivers.

### Acknowledgement

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# The Existence Of Corporate Culture In Pertamina (Persero) Refinery Unit IV Cilacap

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## Abstract

The research aimed to know the current condition of corporate culture in PERTAMINA (Persero) Refinery Unit IV Cilacap. The methodology used is Questionnaire and Interview. Primary data is collected by questionnaires and interview that distributed to 300 employee and interview the HR manager and HR staff. There is a 6C corporate culture (Clean, Competitive, Confident, Customer Focus, Commercial, and Confident) that existence in PERTAMINA (Persero) Refinery Unit IV Cilacap. Commercial dimension is the weakest dimension than the other. Never the last, the acceptability of 6C culture in PERTAMINA (Persero) Refinery Unit IV Cilacap is high. It is prove employees understood and implemented well. So, to improve Commercial dimension, PERTAMINA must form a particular program.

*Keywords: Culture, Corporate Culture, PERTAMINA, Change, Transformation*

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## 1. Main text

Nowadays, the corporate culture is seen as part of the organization's identity. Moreover, the company also realized that organizational culture is made in order to create value that will be the goal of the company, and associated with their vision and mission in running the company. Corporate culture also give effect to the results of the company's performance.

The object research is PERTAMINA Refinery Unit IV Cilacap which is one of state-owned enterprise that is undergoing a process of transformation, because PERTAMINA Refinery Unit IV Cilacap is in a new environment. The new environment, influenced by UU No. 22/2001 which make new competitor in the business world for oil and gas retail and distribution industry. From the government side, the government demanded greater dividends with transparency and professionalism in the business of PERTAMINA. It caused by changes in laws and regulations that require the need for transformation. In influencing the corporate culture, to transform, then the new value is needed to achieve the new goals of the company. This value is implemented through a corporate culture that must be applied by every employee. In this study, in addition to knowing the implementation of the corporate culture, the ultimate objective was to determine the acceptability of employees toward the new culture that applied in PERTAMINA (Persero) Refinery Unit IV Cilacap.

PERTAMINA (Persero) Refinery Unit IV Cilacap is one of refinery unit which produce many product that distributed in Java and surrounding. Refinery process has a relation with a productivity. If the Company's performance is high, the productivity become high too. The company's performance influenced by the corporate culture that existence in PERTAMINA (Persero) Refinery Unit IV Cilacap. Corporate culture in PERTAMINA (Persero) Refinery Unit IV Cilacap has a role to be the guidance to achieve the vision and mission of PERTAMINA (Persero) Refinery Unit IV Cilacap in order to maximizing PERTAMINA's wealth.

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## 2. Literature Review

According to Damen (1987), culture is based on the pattern of human or live style that being learned and share thus style with each other. These pattern consist aspects of human social interaction. Hofstede (1984), culture could differentiate each of group or communities by their own type of mindset principle. Charles Handy (1985) classified four organizational types as follows: Power Culture, is dependent on the strength and influence of the central figure, Role Culture, is culture that operates in accordance with logic and rationality and its strength lies in its function or specialist, Task Culture, prefers a project oriented and extremely adaptable, and the last is Person Culture, is be the central point in the person culture. Hofstede (1990) classify the manifestation of culture into four categories, which are symbols, heroes, rituals and values. And according to Schein (1985), differentiate the level of corporate culture into 3 level: Level 1 is Artifacts, Level 2 is Values, and Level 3 is Basic Underlying Assumptions.

According to Brown (1995), indicates that the following are the more widely commented upon functions of culture: Conflict reductions, Coordination and control, Reduction of uncertainty, Motivation, Competitive advantage. According to Kurt Lewin (1947) in the theory of three Steps Process of Change, Lewin revealed that the corporate culture change occurs in three stages, which are Step unfreezing, Changing Step, and Freezing Step.

## 3. Methodology

6C is the corporate culture in PERTAMINA (Persero) Refinery Unit IV Cilacap which has 6 dimensions, that is Clean, Competitive, Confident, Customer Focus, Commercial, and Capable. Each of dimension has a variables that construct the dimension. To analyze the existence of the corporate culture in PERTAMINA, researcher create a Questionnaire that constructed from questionnaire design which contained variables of each dimension in 6C. And each variables produce one question for questionnaire. It can be seen in the table 1.

Table 1. Questionnaire Design

Dimension	Variable	Dimension	Variable
Clean (X1)	Integrity (X1.1)	Customer focused (X4)	Focused on customer need (X4.1)
	Accountability (X1.2)		Care (X4.2)
	Honest (X1.3)		Sincere (X4.3)
	Transparent (X1.4)	Commercial (X5)	Create added value (X5.1)
Solution oriented (X2.1)	Risk taker (X5.2)		
Proactive (X2.2)	Innovative (X5.3)		
Competitive (X2)	Responsive (X2.3)	Capable (X6)	Increasing professionalism (X6.1)
	Quality (X2.4)		Teamwork together (X6.2)
	Confident (X3)		Continuous learning (X3.1)
Mutual respect (X3.2)			Persistent (X6.4)
Hard work (X3.3)			

Then, questionnaire distributed to 300 respondents in PERTAMINA (Persero) Refinery Unit IV Cilacap Head Office. Sampling method in this research is stratified random sampling. Stratified random sampling will be collected randomly from the entire job function in PERTAMINA Refinery Unit IV Cilacap. After all questionnaires collected, the data will be processing by Cronbach's Alpha Score and Pearson Score method and the result will come up. From both of methods, the validity and reliability of questionnaire will come up. Next, the data converted to histogram in purpose to specifically describe the real condition of PERTAMINA (Persero) Refinery Unit IV Cilacap culture. From the result, researcher can explore the related reference of corporate culture and give recommendation for the weak variables.

#### 4. Data Analysis

From 300 questionnaires that have distributed, there are 261 questionnaires that have back which are been respondents with various characteristic profile. The reliability and validity test has already processed by Cronbach's Alpha Score and Pearson Score method in PASW Statistics Version 18.0. If the value of alpha > 0.7 means sufficient reliability. And if the Pearson score > 0.3 means the data is valid. The result of 6C culture dimension validity and reliability test is all of variables of 6C dimension is valid and reliable. Because all of variables have value alpha > 0.7 and the Pearson score > 0.3.

From the result of dimension of corporate culture, Figure 1 illustrates the average score of all dimensions. In overall, the condition of corporate culture in PERTAMINA (Persero) Refinery Unit IV Cilacap is good. From the survey it show the employees understand and implemented the corporate culture.

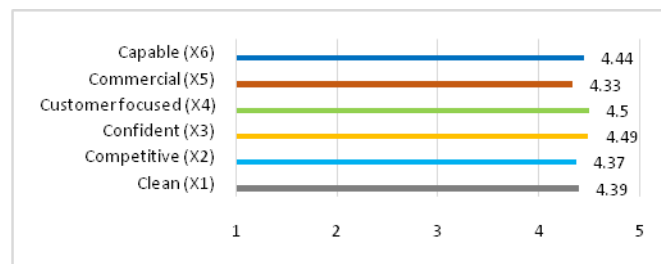


Figure 1 Corporate leadership culture (value 6C) score

Figure 2 illustrates the average score of variables from CLEAN dimension. From this four variables honest (X1.3) and integrity (X1.1) is higher than accountability and transparent. It shows employees were understood and implemented honest and integrity than accountability and transparent.

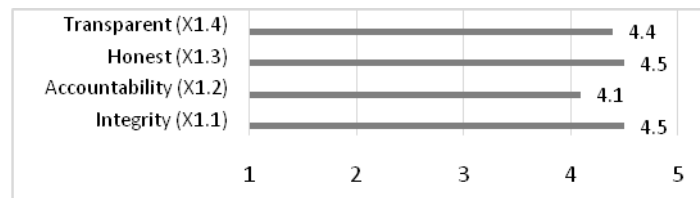


Figure 2 Score of variables from Clean dimension

Figure 3 illustrates the average score of variables from CLEAN dimension. From this four variables solution oriented is higher than proactive, reactive, and quality. It shows employees were understood and implemented solution oriented than proactive, reactive, and quality.

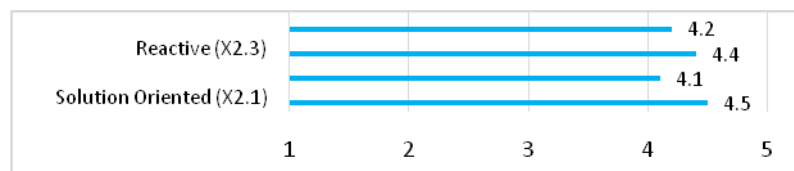


Figure 3 Score of variables from Competitive dimension

Figure 4 illustrates the average score of variables from CONFIDENT dimension. From this three variables mutual respect is higher than continuous learning and hard work. It shows employees were understood and implemented mutual respect than continuous learning and hard work.

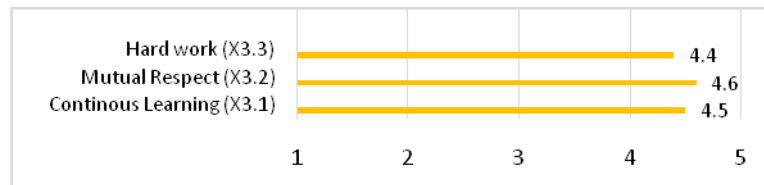


Figure 4 Score of variables from Confident dimension

Figure 5 illustrates the average score of variables from CUSTOMER FOCUS dimension. From this three variables care is higher than focus on customer need and sincere. It shows employees were understood and implemented care than focus on customer need and sincere.

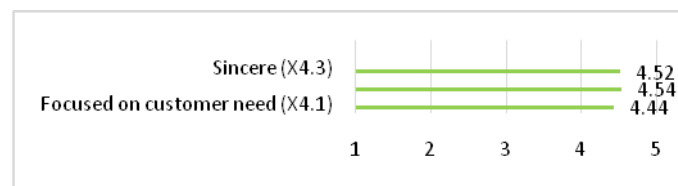


Figure 5 Score of variables from Customer Focus dimension

Figure 6 illustrates the average score of variables from COMMERCIAL dimension. From this three variables innovative is higher than focus on risk taker and create added value. It shows employees were understood and implemented innovative than risk taker and create added value.

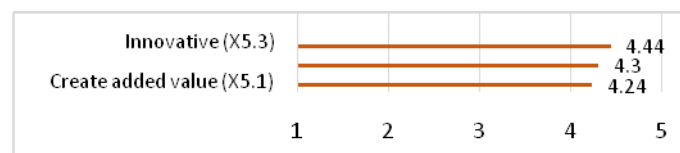


Figure 6 Score of variables from Commercial dimension

Figure 7 illustrates the average score of variables from CAPABLE dimension. From this four variables teamwork together is higher than increasing professionalism, mastering the latest technology, and persistent. It shows employees were understood and implemented teamwork together than increasing professionalism, mastering the latest technology, and persistent.

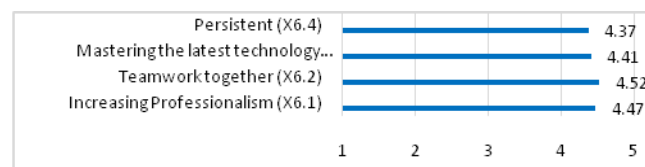


Figure 7 Score of variables from Capable dimension

## 5. Descriptive analysis of PERTAMINA (Persero) RU IV Cilacap Culture Existence

According to Damen (1987), culture is based on the pattern of human or live style that being learned and share thus style with each other. These pattern consist aspects of human social interaction. If it is associated with explanation from Damen (1987), PERTAMINA, with 6C, forming a pattern that governs the interaction between employees. This pattern is the values contained in the 6C. Value 6C also serves to identity to distinguish PERTAMINA with other company. As that describes with Hofstede (1984), culture could differentiate each of group or communities by their own type of mindset principle.

Based on classification of organization types from Charles Handy (1985), 6C culture of PERTAMINA is included in Person Culture type. It cause the individual is the central point in the 6C culture. PERTAMINA (Persero) Refinery Unit IV Cilacap corporate culture exists to help the individual rather than the other way

around. Value 6C create a worker to be professional people. And according to Hofstede (1990), value 6C in PERTAMINA (Persero) Refinery Unit IV Cilacap have in value stage in Hofstede's Manifestations of Culture classification. Because value 6C is the basis of the formation of worker character. Value stage is the core of culture in Hofstede classification.

Based on the result of the questionnaire in overall PERTAMINA (Persero) Refinery Unit IV Cilacap corporate culture, Customer Focus dimension is the strongest dimension and in very good conditions. Customer Focus is an essential elements for a company to improve the quality of the company. Therefore, PERTAMINA trying to keep the customer's loyalty, so that the existence of the company is maintained, even with the opening of the retail and distribution markets, competition in the fuel distribution sector will increase. To that end, PERTAMINA aggressively make the service, to come up PERTAMINA with customers. In the dimension of Customer Focus, there are three variables, namely sincere, care, and focus on customer need. Variable of Care has the highest percentage than sincere and focus on customer need. This proves that the employee PERTAMINA (Persero) Refinery Unit IV Cilacap priority concern to the customer.

And the other hand, dimension of Commercial become the weakest dimension of value 6C, but still in good level. When viewed from the achievement of the company's net profit up to August 2014, PERTAMINA should be concerned about this, because the progress of net income only reached 77.82% or 1.66 billion USD from the target in August 2014 at 2.13 Billion USD. There are several external factors that affect it, such as the influence of the US dollar exchange rate and the increasing influence of Delta Price PERTAMINA products. But on the other hand, there is internal factor that influence, that is all the potential in the employee has not been exploited to contribute. Commercial dimension, there are three variables, innovative, risk taker, and create added value. And create added value is the lowest variable. In fact, the added value is an important element in the commercial process. The added value can only be created if any asset of the Company may provide returns or contributions, both production assets and non-production assets. Similarly, workers are the greatest assets owned by the Company, must be able to contribute. If employees already contributed, so productivity will be increase, because they will maximize the commercial process which related the productivity.

Schein (1985) describes that the two basic functions of organizational culture are to ensure survival and adaptation to the external environment, and to ensure internal integration. Based on the result of interview with the HR manager and HR staff, in the process of implementation of corporate culture in PERTAMINA (Persero) Refinery Unit IV Cilacap and to ensure internal integration, there is a group of cultural activists (change agents), who will be involved as a driver 6C culture. They are known as change agents. Change agent consists of the Manager (enough socialization about CA), and was elected as a facilitator of cultural workers voluntary / selection (should participate Training CA). Tasks and role of change agent is to follow the gathering / workshop facilitator culture / Change agent, committed to run PERTAMINA Values 6C consistently and be a role model function, encourage and ensure the implementation of the five cultural programs, communicate its activities with PERTAMINA Culture function, and search and build cultural facilitator in his division.

And to ensure survival and adaptation to the external environment, change agent implements 6C values into corporate culture, which is called the five cultures simultaneously (5 budaya serentak). Five of the culture are values day, thank you campaign, 5 minute talk, Visual monitoring board, and Impact Plan discussion.

- Impact Plan Discussion, is conducting division internal discussions to seek a solution to the problem of existing. The goal of this program is to reproduce ideas and be more in accordance with the root cause problem in each division, facilitate and strengthen the implementation of the follow-up because of the similarity designers and implementers of ideas repair. The object of this program is the vice president and staff.
- Visual Monitoring Board, is a board in which there are all the names of the employees in one division and KPI each division. The goal of this program is for Performance Assessment can be done in a transparent

(KPI visualization), as well as facilitate monitoring and sharing of information. The object of this program is managers and staff.

- Minute morning talk, is briefing conducted all divisions each morning, starting at 07.30. And everyone has a talk time up to 5 minutes. The goal of this research is to create a communication media, which is routinely between manager and staffs, and as a sharing information between staffs and manager about the job (eliminating SILO effect). The object of this program is managers and staff.
- Value Day, is the time when all workers are required to stop working about 1-2 hours to listen to the lectures that are motivated about values 6C. The goal is to provide values and motivation for employees to become better. The object of this program are all employee of PERTAMINA.
- Thank You Campaign, is an award given by the manager to the staff who have performance and carry out his duties well. The goal is to provide motivation to all employees in order to become better, and the openness of the performance appraisal. The object of this program are all employee of PERTAMINA.

Then at PERTAMINA (Persero) Refinery Unit IV Cilacap, special cultural programs, there are three distinctive culture of PERTAMINA (Persero) Refinery Unit IV Cilacap:

- Culture Pause: Sing Songs PERTAMINA each meeting before the start of the operation. Culture Pause duration of 2 minutes before the meeting begins.
- Red Flag: Putting a red flag on the table that is not neat and clean.
- English Day and English Course: Provide subsidies to workers to follow courses in English and use English every Monday.

Other Implementation of 6C culture are watching together Value Based Development Program (a program to explain the values 6C interactively) and CEO monthly letter. CEO monthly letter is sharing made by the CEO of PERTAMINA (central or branch) to employees in orders to keep company's values and work culture 6C. Starting from July to December 2014. Each month, there will be one of the values 6C campaigned through visualization, competitions and promotions. It is intended that values 6C can be understood by the workers within PERTAMINA with fun and the spirit of volunteerism.

According to Brown (1995), the function which had been had 6C corporate culture in PERTAMINA (Persero) Refinery Unit IV Cilacap are:

- Conflict reduction. 6C Culture had promoted consistency of perception, problem definition, evaluation of issues and opinions, and preferences for action. Given that there are strong tendencies for organizations to be highly conflict and antagonistic, 6C culture also is a useful source for integration and consensus.
- Coordination and control. 6C Culture provide the agreed norms of behavior or rules that enable individuals to reach agreement on how to organize in general, and the process by which decisions should be reached in particular.
- Reduction of uncertainty. 6C culture taught workers to perceive reality in a particular way, to make certain assumptions about what things are important, how things work and how to behave.
- Motivation. 6C culture have been an important source of motivation for employees and thus has a significant influence on the efficiency and effectiveness of PERTAMINA (Persero) Refinery Unit IV Cilacap business process.
- Competitive advantage. 6C culture have been a strong organization culture which can be a source of competitive advantage. It promotes consistency, coordination and control, reduces anxiety, facilitates organizational effectiveness and therefore improves the chances of being successful in the marketplace.

#### 6. Steps Process of Change in PERTAMINA (Persero) Refinery Unit IV Cilacap

Based on Lewin's three Steps Process of Change, at this time PERTAMINA (Persero) Refinery Unit IV Cilacap is at the last step in Lewin's three Steps Process of Change, the freezing step. In the freezing step, PERTAMINA



(Persero) Refinery Unit IV Cilacap must ensure 6C culture has been implemented by the employee permanently. PERTAMINA (Persero) Refinery Unit IV Cilacap has made efforts to create a culture 6C become permanent with programs addressed to all workers. In addition, programs that do PERTAMINA (Persero) Refinery Unit IV Cilacap now, aims to workers do not revert back to the old ways of thinking Reviews their doing or prior to the implementation of the change.

### 7. Conclusion, Managerial Recommendation, and Further Research

To survive in the new environment, which is caused by changes in laws and regulations in Indonesia, and to face the challenges of global competition in oil and gas sector, at the world, then PERTAMINA did the transformation. Transformation of PERTAMINA, has changed its core business and perform renewal strategies in the upstream and downstream sectors. PERTAMINA also changed their vision and mission to become a world-scale national companies. Therefore, PERTAMINA form a set of values to guide employees to act, and as a culture to achieve the new vision and mission of PERTAMINA. These values are 6C, Clean, Competitive, Confident, Customer focus, Commercial, and Capable. All of business sector in PERTAMINA must to apply 6C culture, including PERTAMINA (Persero) Refinery Unit IV Cilacap. From the results of questionnaires distributed at the head office of PERTAMINA (Persero) Refinery Unit IV Cilacap, all dimensions have a high score results. This means that the entire value of 6C has been well applied in PERTAMINA (Persero) Refinery Unit IV Cilacap. And to implement the corporate culture in PERTAMINA (Persero) Refinery Unit IV Cilacap is to form the Change agent who tasked to implement 6C value in the company and create programs, these are Value Based Development Program, CEO monthly letters, and the application of 5 cultural programs simultaneously (lima budaya serentak). And there is a distinctive program that is specifically implemented in PERTAMINA (Persero) Refinery Unit IV Cilacap, these are Culture Pause, Red Flag, and English day.

To increase Commercial dimension in 6C, so PERTAMINA (Persero) Refinery Unit IV Cilacap must do the intervention. One of the intervention is motivation. Commercial has a relation with employee motivation. Application of reward system is an appropriate method to further improve employee motivation. Then training to be a method to increase the variable of 'creating added value' which is an important variable in the Commercial dimensions.

This research aims to determine the implementation of the culture, and how the acceptability of an employee to the value at PERTAMINA (Persero) Refinery Unit IV Cilacap. For further research, corporate culture can be attributed to performance management and employee engagement.

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# Research Framework: Relationship among Soft Skills, Hard Skills, Innovativeness and Productivity of Knowledge Workers in Indonesia

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## Abstract

Knowledge economy is economy that gives important role for information, knowledge and innovation. In that economy concept, firms can be succeed in innovation as long as they can absorb effectively knowledge using some absorptive capacity, spend some money in research and development and take the opportunities of industry spillovers (Cohen and Levinthal, 1989). Those firms consist of knowledge workers who in the human capital and competence context (Spencer and Spencer, 1993) should mastered not only hard skills but also soft skills. The objectives of this research are to develop conceptual model which is describe the relationship among soft skills, hard skills, innovativeness of knowledge workers, and their productivity in the context of knowledge economy in Indonesia. Multiple regression analysis might be appropriate to be used as a method for this research.

*Keywords: Soft Skills, Hard Skills, Knowledge Workers, Innovativeness, Productivity, Knowledge Economy.*

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## 1. Background

In the economics of innovation, information and knowledge become the main capital. Through research and development (R&D), firms can innovate and use their information and knowledge while they learn (Cohen and Levinthal, 1989). The Organization for Economic Co-Operation and Development (OECD) in 1996 stated that knowledge is recognized as the driver of productivity and economic growth, leading to a new focus on the role of information, technology and learning in economic performance.

Powel and Snellman (2004) define the knowledge economy as economy that depends more on cognitive aspects than resources in the form of physics. Creating knowledge that will be used in the cognitive aspects will be important. Education is the fundamental enabler of the knowledge economy. Well-educated and skilled people are essential for creating, sharing, disseminating, and using knowledge effectively. Dahlman and Utz (2005) state that the knowledge economy of the twenty-first century needs a set of new knowledge and skills, which includes not only ICT skills, but also such soft skills as problem solving, analytical skills, group learning, working in a team-based environment, and effective communication.

There are many concepts in soft skills, one of them explained by Spencer and Spencer (1993). Furthermore, Stuetzer, Goethner, and Cantner (2012) found for start-up firms that the entrepreneurial process balanced skills (such as: 1. marketing, sales, promotion; 2. accounting, controlling, financing; 3. engineering, R&D; 4. production; and 5. Personnel) are an important success factor throughout the entrepreneurial process.

Tan et. Al (2008) has been assessed the relative efficiency of 12 selected Asia Pacific countries in their development of Knowledge Economy (KE). Those countries are: Australia, China, India, Japan, the USA, Hong Kong, Korea, Singapore, Indonesia, Philippines, Malaysia, and Thailand. The performances of the selected countries are evaluated using data envelopment analysis (DEA). The DEA scores indicate that four of the

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emerging countries (India, Indonesia, Thailand and China) are relatively inefficient in KE development compared to the other eight which are equally efficient. The main reason for their backwardness is due to the outflow of their human capital to the developed countries.

The relationship between innovation and productivity has been examined by Mohnen and Hall (2013). They reviewed the effects not only technological innovation but also non-technological innovation on firm's productivity. They conclude that innovation can make a firm has a better productivity or better sales per employee.

KE in the firm level associated with the Knowledge Management (KM) practices. Cantner, Joel, and Schmidt (2011) found that "firms which apply KM perform better in terms of higher-than-average shares of turnover with innovative products compared to their twins". Furthermore, firms in six Latin American countries (Argentina, Chile, Colombia, Costa Rica, Panama, and Uruguay), which are most probably developing countries that spend some money in knowledge, can create innovation that in the end has higher labor productivity than firms that do not do such spending (Crespi and Zuniga, p.274). So Indonesia, as one of developing countries in the world is an interesting country to be researched in the sense of knowledge economy and human capital aspects.

## 2. Research Questions

Based on the background, therefore this doctoral program research would answer the questions such as:

1. Are there any relationship among soft skills, hard skills, innovativeness of knowledge workers and labor productivity in Indonesia?
2. If there are any relationship, which variables influencing the others variable?
3. Which specific soft skills and hard skills are influencing firm's innovations which lead to the firm's productivity?

## 3. Objectives

The objectives of this research are to develop conceptual model which is describe the relationship soft skills, hard skills, innovativeness of knowledge workers and labor productivity in the context of knowledge economy in Indonesia as well as to recognize the specific soft skills and hard skills that influencing firm's innovation which lead to the firm's productivity; and to give recommendation to the academic, business and government in Indonesia.

## 4. Hypotheses

Based on the background, the research questions and the research objectives, the research hypothesis are developed as the following:

1. H1.a: The overall soft skills of knowledge workers positively influence their overall innovativeness.
2. H1.b: Some factors of soft skills of knowledge workers positively influence their overall innovativeness.
3. H2.a: The overall hard skills of knowledge workers positively influence their overall innovativeness.
4. H2.b: Some factors of hard skills of knowledge workers positively influence their overall innovativeness.
5. H3: The overall soft skills of knowledge workers positively influence their overall hard skills.
6. H4: The overall innovativeness of knowledge workers positively influence their overall labor productivity.
7. H5: The overall soft skills of knowledge workers positively influence their overall labor productivity.
8. H6: The overall hard skills of knowledge workers positively influence their overall labor productivity.

The overall value of the construct in this case is the mean value of each construct of soft skills, hard skills, innovativeness and labor productivity in the firm level, as the average measurement result of the individual level.

### Original Contribution and Benefit

The original contribution of this research is to develop conceptual model which is describe relationship soft skills, hard skills, innovativeness of knowledge workers and productivity in the context of knowledge economy in Indonesia through empirical findings in several relevant industries. In the other hand the benefit of this research,

9. For research community: contribution in the area of human behavior, soft skills, positive psychological capital, innovation and knowledge economy.
10. For business and government: reference of knowledge in defining strategy and program in human behavior development and policy in the context of knowledge economy.

### 5. Research Design

This research is a cross-sectional research that will use the last-three-years of firm data and worker's perception, from the period of year 2012 to 2014. Soft skills, hard skills, and innovativeness will be measured at firm level by asking to the respondent. The respondents, who are asked to fill in the on-line questionnaire using internet, are differentiated into two categories. Firstly, the firm's manager, who hold minimum of medium-level management such as human resources/capital manager or human resources/capital director or chief executive officer or owner. She/he is asked to fill in the firm's general data such as type of industry of the firm, number of employees, sales of the firm, R&D expenditure, and number of training hours. The firm's general data will become the control variables at the firm level. Secondly, the workers, who are expected to answers their perception regarding soft skills, hard skills, and innovativeness related to their job in the last-three-years and some individual level data. The respondents are required to have a minimum level of education of three-years-Diploma (D3) as the control for knowledge workers. The control variables for the individual level are: age, gender, level of education, length of working duration, job-level, and department/division of job.

The measurement of each variable could be based on the following models or researches:

6. Soft skills will be research based on: Relevant Spencer and Spencer (1993) model, Tether et.al. (2005), Rainsbury et. Al. (2002), Weber et. Al. (2012), Consoli and Elche (2010, 2013), Atuahene-Gima (2005), Narver et al. (2004), Lichtenthaler (2009), Homburg (2000), Sloane (2011) and the others relevant model.
7. Knowledge workers hard skills with indicators: Microsoft office abilities, internet abilities, and management skills/knowledge (Rainsbury et al, 2002); Hendarman and Tjakraatmadja, 2012; Hendarman, 2012). Another reference of skills to be surveyed are based on PIAAC-OECD<sup>1</sup>.
8. Innovativeness with indicators: technical and non-technical innovations (Van Oort, 2009; Pedrosa et al., 2010; Hendarman and Tjakraatmadja, 2012; Hendarman, 2012) as well as our proposed variable measurement based on the others references and firm's characteristics.
9. Productivity will be predicted by labor productivity with the measurement of sales per employee (Chudnovsky, López, and Pupato, 2006; Crespi and Zuniga, 2012)) as well as our proposed variable measurement based on the others references firm's characteristics.

Figure 1 show the conceptual model proposed that will be tested. All of the constructs will be measured at the firm level. The summary of variables (factors and constructs) can be shown at Table 1. The research conducts quantitative approach using multiple regression analysis.

<sup>1</sup> <http://www.oecd.org/site/piaac/mainelements-of-the-survey-of-adult-skills.htm>

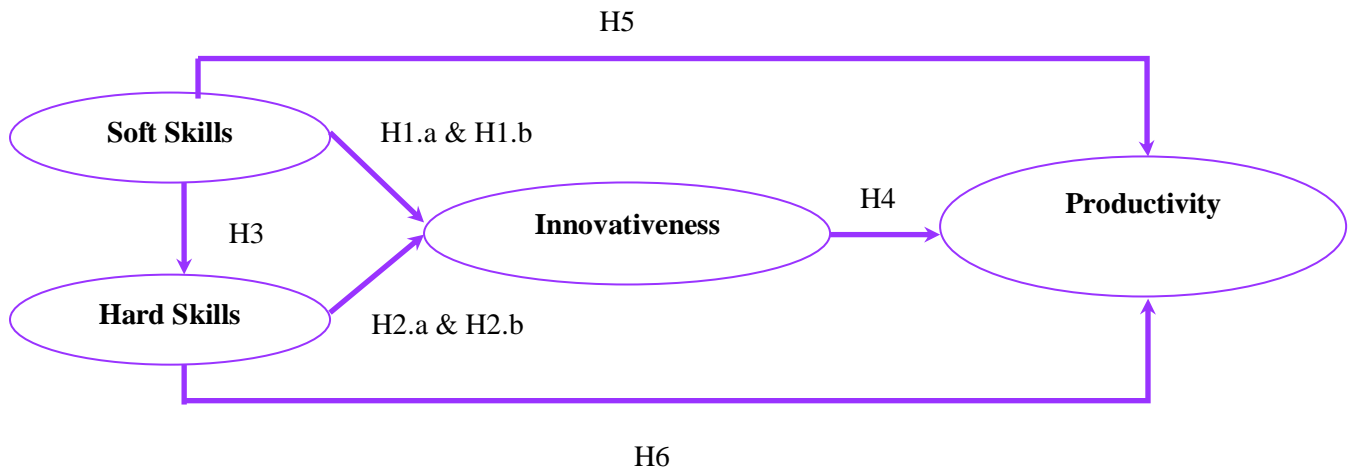


Fig. 1 Conceptual Model Proposed

Table 1 Summary of Factors and Constructs

Factor	Total	Construct	Total
<b>Main Variables</b>			
Technical Innovativeness	3	Innovativeness	1
Non-Technical Innovativeness			
Hard Skill	2	Hard Skills	1
Information Seeking	1	Soft Skills	1
Conceptual Thinking	1		
Innovation Leadership	1		
Relationship building and maintenance	1		
Quick study	1		
Tolerance for uncertainty	1		
Passion and optimism	1		
Sub Total	7		
Number of Employees	1	Productivity	1
Sales	1		
<b>Total</b>	<b>14</b>	<b>Total</b>	<b>4</b>
<b>Control Variables</b>			
Type of Industry	1	Firm Level	5
Firm Age	1		
Training Hours	1		
R&D Expenses	1		
Level of Education	1		
Age	1	Individual Level	6
Gender	1		
Education Level	1		
Working duration	1		
Job-Level	1		
Department/Division	1		
<b>Total (Firm+Ind.)</b>	<b>5+6</b>	<b>Total</b>	<b>5+6</b>

The random sampling method will be used in this research. The firms as the object of this research will be chosen in the Java Island, Indonesia. The firms could be varying not limited to manufacturing firms and service industries. In this case the type of industries will become a control variable. Java Island is chosen because since year 1930, its population is the largest in Indonesia, in 2010 more or less 137 million<sup>2</sup> people (57,4% of Indonesia population) live in Java Island. In 2006<sup>3</sup> ca. 14.5 million firms (64% of total firm in Indonesia) are located in Java Island.

The survey will be delivered for medium and large firms as well as small firms (including small and medium enterprise (SME)). If the assumption of 30%-50% of response rate is taken then the total sample of the firms would be at least 350 firms that we hope to result the minimum valid data of 105 firms. The total questionnaires for each firm will be varying from 3 until 30 questionnaires depend on the size of the firm. Kushnir et al. (World Bank/IFC, 2010) proposed and defined the criteria Micro, Small, and Medium Enterprise (MSME) as firm which is having up to 250 employees. Therefore large firm is a firm which is having more than 250 employees. The total target sample of firms and the total questionnaires can be shown at Table 2.

**Table 2 The Total Target Valid Sample of Firms and The total questionnaires**

Size of Firm	Target Valid Sample of Firms	Target of Total Questionnaires for each Firm	Target of Total Questionnaires
Small (MSME)	75	3-25	1050
Large (>250 workers)	30	15-30	675
Total	105		1725

## 6. Further Agendas

This paper is a research-framework paper, therefore the main objective of this paper is to explain conceptual model and hypotheses as well as research methodology design. In addition some problems and solutions are given for discussions, critics, and feedbacks. The paper-based questionnaire has already been designed in English. Further agendas of this research are to design the on-line questionnaire in Bahasa Indonesia and to start the survey.

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<sup>3</sup> [http://www.bps.go.id/brs\\_file/se06-02jan07.pdf?](http://www.bps.go.id/brs_file/se06-02jan07.pdf?)



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# Integrating Knowledge Management into Project Management To Increase Organizational Performance at Central Team PT. Abc

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## Abstract

The purpose of this study is to identify knowledge management gaps in Central Team that is working on capital project in oil and gas industry. The objective of this study is to find KM solution to prevent knowledge loss due to incomplete deliverables during project transition between phases and people. Research was done by conducting analysis with the basis of questionnaire and interviews with project managers and team members in various projects that handled by Central Team. Most members acknowledge the need of knowledge management improvement in people, process, and technology categories. The most important factors to ensure the success of project knowledge management are people behaviour, process, and technology aspects such as information systems and methods. This research was able to identify key knowledge management practices in each category to improve overall business performance. Rewards and recognition would drive team member to apply knowledge sharing. Document checklists were developed for phase transition to minimize knowledge loss between phases. HR Policy modification was recommended to ensure that member would have enough time for smooth knowledge transfer for multi year's projects. Document repository improvement was developed to ensure that critical information is readily accessible to all members. Easily accessible and standardized project documentation helps transforming tacit into explicit knowledge while retains explicit knowledge thoroughly.

*Keywords: Project Management, Knowledge Management, Knowledge Transfer.*

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## 1. Introduction

Central Team is part of Capital Project Division of PT. ABC, a department that works on projects with capital value between USD 500,000 and USD 75,000,000. Central Team has to address several issues. One major issue is that most of the projects last for multiple years, while member of the group usually last for less than 4 years on average. Team manager has a period of 4 years in particular position before move to different team / different business unit. Each project manager usually lasts for 4 to 5 years on that position, while engineers are usually less than 4 years. Horizon engineers, who are usually fresh graduates, have two years assignment period on average.

The turnover rate in 2013 is 24%. This ratio is high for a team with less than 20 members. Issue raised by this rate is knowledge transfer. It is crucial to have a robust knowledge transfer between employees. Misinformation or document misplacement during handover is still common in various projects.

Recently Central team faced issue with Field Access Improvement project. The project objective was to install three gates at three different locations as access to oilfield. The project was started in 2008 and was scheduled to be finished by 2011. However, due to leaking issues, these gates cannot be handed over to the government. Leaking has become severe that it started to create electrical issue at those gates. Discussion with the government indicated that there might be sole cost, a cost that cannot be recovered for this project due to this issue. The amount of sole cost could be between USD 50,000 to USD 350,000.

This sole cost possibility has raised alarm within PT. ABC management. Capital Project manager instructed to carry out facilitated root cause analysis session to prevent similar issue in the future. The analysis pointed out

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that the root cause of this was incomplete deliverables transfer during project transition.

In American Productivity and Quality Center report (International Benchmarking Clearinghouse, 2003), Halliburton Energy Service Group faced a similar challenge where 30 percent to 40 percent of the time, the knowledge or information does not flow to the people who need it while performing their job duties. The same report shows that another service company, Schlumberger, has made knowledge management as part of a solution to solve their business problems.

There are five steps in PT. ABC project execution that called Project Management Process (PMP) process as shown in Figure 1.

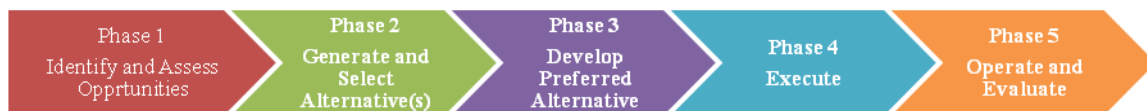


Figure 2 PMP Phases

In phase 1, project team pursues the clear opportunity frame and ensures alignment with business objectives. In phase 2, project team generates and assesses a wide range of creative, doable alternatives for the project based on the endorsed project Frame. In phase 3, several key activities area adequately defines the project, develop estimates that align with the scope and execution strategy, and quantify risks and uncertainties. In phase 4, project team executes the project in accordance with the PMP, Appropriation Request and other FID commitments. Start up and transition the completed asset to the business unit. The last phase consists of monitoring performance of the asset. Benchmark the asset performance against business objectives (the Part 5 Look back). Share results and lessons learned. Identify new opportunities.

The aim of this paper is to identify and suggest solution to transfer of knowledge problems between project phases in Central Team. This research followed the corridor of three categories of people, process, and technology that would improve Central Team project management's performance facing time, cost, and quality constraints. The topic dictates in depth analysis of each aspect mentioned above. More rewarding environment, extensive knowledge sharing opportunities and robust infrastructure would likely have allowed Central Team to improve its performance on projects' time and budget.

## 2. Business Issue Exploration

Conceptual framework is important to approach issue identified in the previous chapter. Organizational development was used to approach this issue. This approach is an effort to (Cummings & Worley, 2008) develop planned interventions in the organization's process that can be applied organization wide, managed from the top, and with the objective to increase organization effectiveness and health. Organizational development application will eventually improve individual performance and create better morale.

This framework is a long range, planned, and sustained effort to find better solutions, create higher job satisfaction, improves teamwork within Central Team. There are several elements of organizational development process as seen in Figure 2.

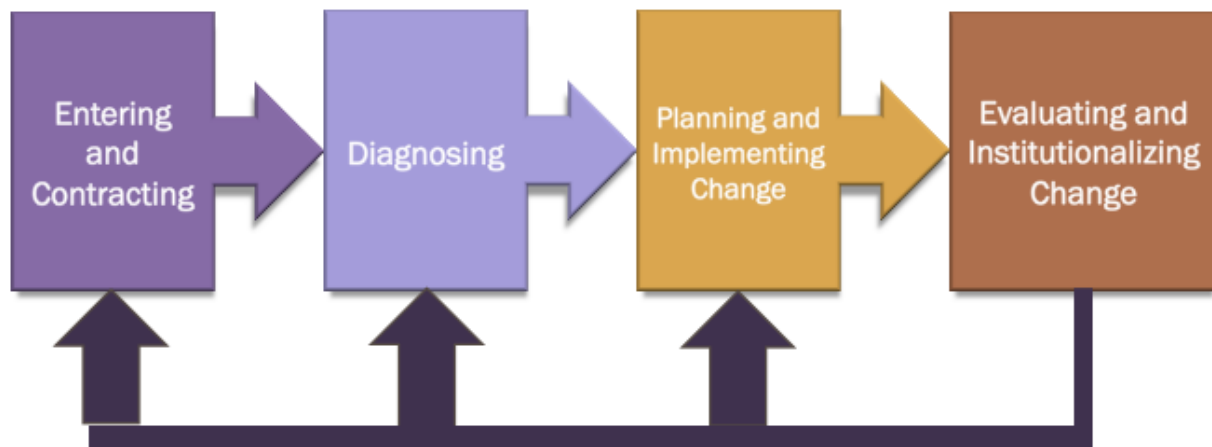


Figure 3 Organizational Development Framework (Cummings & Worley, 2008) with modification

Figure 2 shows general model of planned change within organization. The arrows connecting the different activities in the model show the typical sequence of events, from entering and contracting, to diagnosing, to planning and implementing change, to evaluating and institutionalizing change. The lines connecting the activities emphasize that organizational change is not a straightforward, linear process but involves considerable overlap and feedback among the activities.

Entering an organization involves gathering initial data to understand the problems facing the organization or to determine the positive areas for inquiry. Conducting root cause analysis of Field Access Improvement project did the first step, or entering in this framework. After information is collected, the problems or opportunities are discussed with managers and other organization members to develop an agreement to engage in planned change. During root cause analysis, it was clear that the main issue was incomplete deliverables during project phase transition. This research uses the assumption that deliverables loss was due to inadequate knowledge transfer during project phase gating. The issue is within capital project management PT. ABC and affecting Central Team and Operation Engineering.

In diagnosing, the Central Team system is carefully studied. In this phase, research will be focused on understanding Central Team problems, including their causes and consequences. In this particular stage, questionnaire and interview will be given to Central Team members to understand current knowledge management practice in Central Team. Based on the questionnaire, action steps for recommendations will be developed based on diagnosis results.

In planning and implementing change step, interventions will be designed to achieve the Central Team's goals and make action plans to implement them. The interventions will cover four major types including:

1. Human process interventions at the Central Team's member level,
2. Interventions that modify Central Team's technology,
3. Human Resource of PT. ABC interventions that seek to improve performance, and
4. Strategic interventions, involve managing internal process necessary to support business strategy.

In the last step of evaluating and institutionalizing change, the effects of the intervention will be evaluated and institutionalization of successful change initiatives will be managed for sustainability. Feedback to Central Team members about the intervention's results provides information about whether the changes should be continued, modified, or suspended. Institutionalizing successful changes involves reinforcing them through feedback, rewards, and, training.

This research uses qualitative method to gain an in-depth insight into matters that affect team member's behaviors. Questionnaire used in tandem with interview to clarify particular parts of the survey. First, a survey developed to test the research questions. Then, the reviewed literature used during the drafting in a deductive manner to help compile the questionnaire and to compare the findings of the survey with the theoretical

assumptions. Data collected from all Central Team project management members in the early phase of research. The next step is to assess one major root cause as shown in Figure 3.

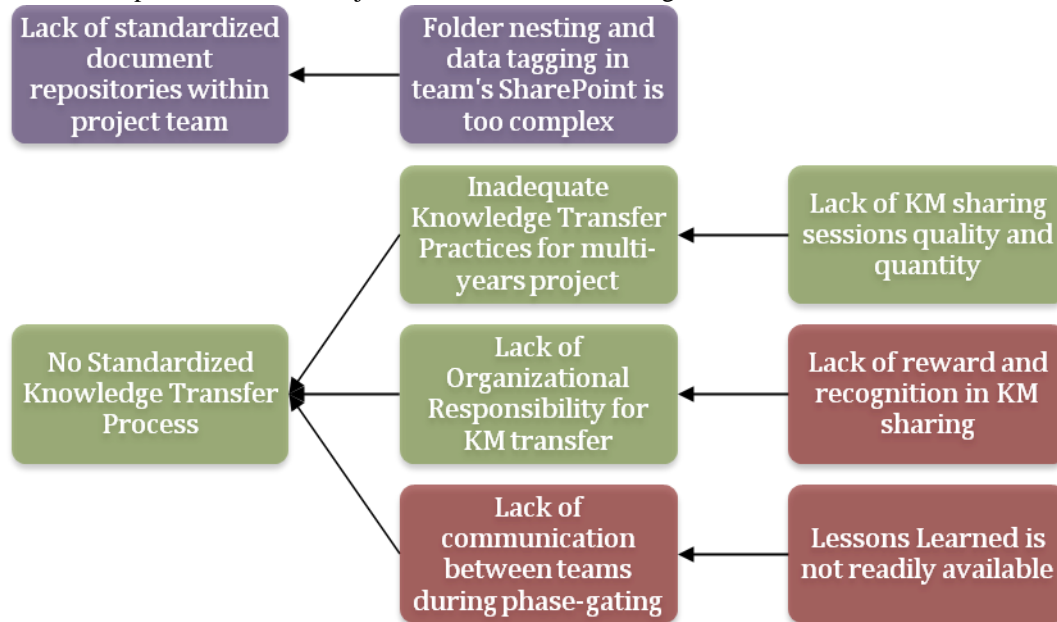


Figure 4 Root Cause Schematic

The first cause is poor document repositories. This issue leads to different perspectives among team members, as each member will tag data and put documents according to each perspective. This hinders the effort to find relevant document from other projects in a particular project, including lessons learned.

Inadequate knowledge transfer process leads to several issues such as quantity of knowledge sharing practices due to no clear guideline to conduct knowledge sharing session, neither the enforcement of those practices. Without a clear knowledge sharing process, there will also be no clear job description on knowledge sharing management in the project team. Without clear job separation, it is difficult to reward and recognize people who conduct such practices.

Without clear knowledge transfer process, communication between team is only happened sporadically depends on project members' initiatives and awareness. This poor communication will hinder any lessons learned or best practice sharing to the new project team. Based on this analysis, Knowledge transfer process is the cause of KM issue in Central Team.

### 3. Business Solution

There are several alternatives to answer root causes identified in this research. Figure 5 shows Knowledge Transfer Process Map as part of recommendations, specifically to face Knowledge Transfer Issue within Central Team.

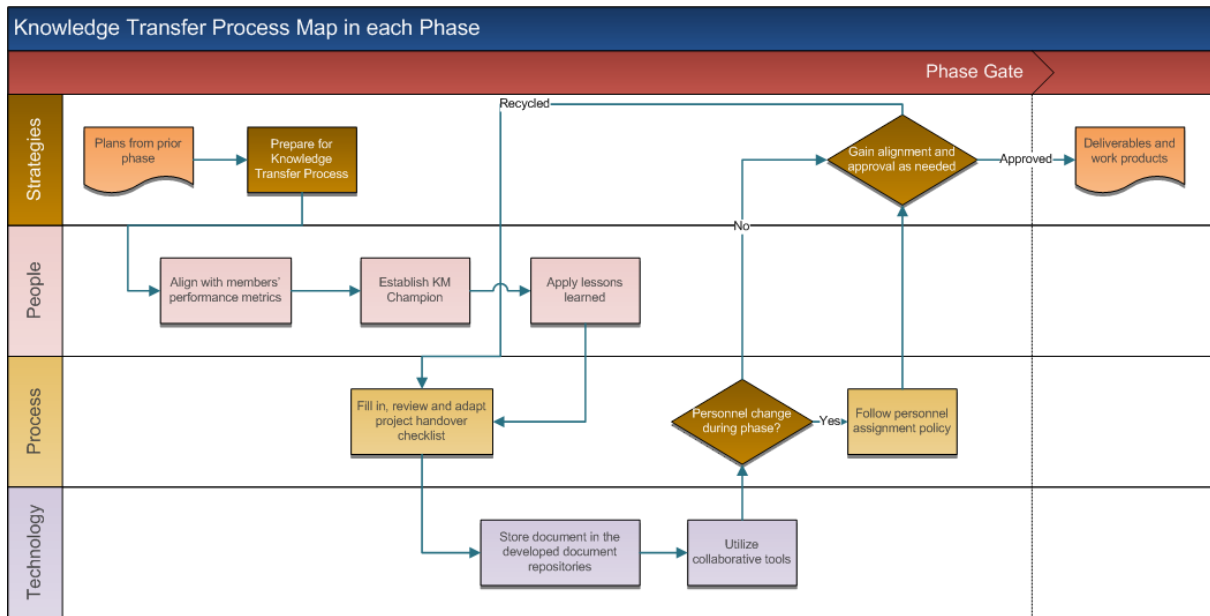


Figure 5 Knowledge Transfer Process Map

Each step of recommended process is shown in the following table. Table 2 presents a summary of Knowledge Transfer Process steps and the outputs and duration for each step specifically during Knowledge handover process within project.

Table 8 Knowledge Transfer Process Steps, Outputs, and Durations

Knowledge Transfer Process Step	Outputs	Duration
Prepare for Knowledge Transfer Process	<ul style="list-style-type: none"> <li>Identified key knowledge holders</li> <li>Identified similar projects in the past</li> <li>Established project team members</li> </ul>	A few days to a few weeks
Align with members' performance metrics	<ul style="list-style-type: none"> <li>Knowledge transfer practices compliance incorporated project members performance metrics</li> <li>Alignment with other metrics in members' performance agreement</li> <li>Endorsement from members' direct supervisor to reward and recognize members' effort</li> </ul>	A few days to a few weeks
Establish KM champion	<ul style="list-style-type: none"> <li>Appointed KM champion for knowledge handover process</li> </ul>	A few hours to a few days
Apply lessons learned	<ul style="list-style-type: none"> <li>Lessons learned sharing session from other similar projects</li> </ul>	A few days to a few weeks

Knowledge Transfer Process Step	Outputs	Duration
Fill in, review, and adapt project handover checklist	<ul style="list-style-type: none"> <li>▪ Reviewed and updated checklist document according to project needs and project phase</li> <li>▪ Increase effective communication between teams.</li> </ul>	A few weeks to a few months
Store document in the developed document repositories	<ul style="list-style-type: none"> <li>▪ Use of well communicated document repositories</li> </ul>	Ongoing during execution
Utilize collaborative tools	<ul style="list-style-type: none"> <li>▪ Use of ADAIRO tools in SharePoint site for each project</li> <li>▪ Assurance that decisions made during handover well recorded, documented, and communicated</li> </ul>	Ongoing during execution
Identify personnel changes	<ul style="list-style-type: none"> <li>▪ Identification of key project members changes</li> <li>▪ Sufficient transition period between key personnel changes</li> </ul>	A few days to a few weeks
Follow personnel assignment policy	<ul style="list-style-type: none"> <li>▪ Implementation of tandem working between personnel for the same job on the same project for certain period</li> <li>▪ Communicated document repositories practice for the particular project</li> </ul>	A few weeks
Gain alignment and approval as needed	<ul style="list-style-type: none"> <li>▪ Approvals from DE and DRB that knowledge transfer process were complete</li> </ul>	A few days

#### 4. Conclusion and Implementation Plan

KM initiative recommendations that were suggested from this research are shown in Figure 6.

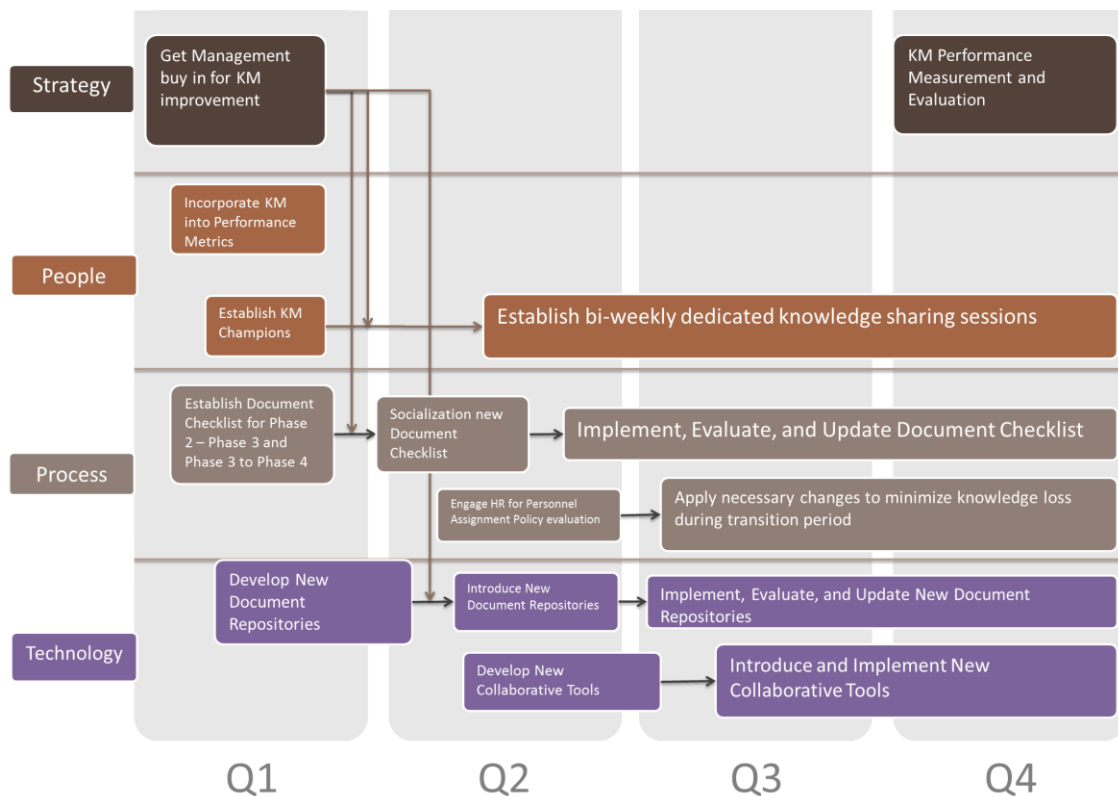


Figure 6 KM Implementation Timeline

For each category of people, process, and technology, all contribute to successful knowledge management implementation. In people context, several interviewees stated the importance of having proper reward and recognition to push the concept of knowledge management implementation. Applying reward and recognition in formal monthly team meeting would expose members to knowledge sharing practice. Project handover from team or from certain individual to another has a huge potential of knowledge loss. This knowledge loss could create major problem in the future that disrupt project's cost and schedule. Developing a robust and complete checklist that endorsed by management would minimize that particular potential by ensuring all relevant knowledge transferred during handover process. Tools like SharePoint are inefficient if the members resist using them, therefore improvement has to be made and implemented. Simplifying metadata and adding ADAIRO tools in each project, while being supported by good and clear communication to the whole team will improve members' awareness of good document management and increase members' productivity.

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# REWARD MANAGEMENT STRATEGY (PAY STRUCTURE DESIGN) TO IMPROVE EMPLOYEE ENGAGEMENT (Case Study: PT Victoria Nusantara Indonesia, Tbk.)

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## Abstract

Reward management is concerned with the formulation and implementation of strategies and policies that aim to reward people fairly, equitably and consistently in accordance with their value to the organization. According to the Hay Group Engaged Performance Model, reward is a one of significant elements that build the engagement level of employee in organization. In context of reward management, the business issue that faced by PT Victoria Nusantara Indonesia, Tbk. (VNI) is low of employee satisfaction level in the aspect of reward as one of elements in the Engaged Performance Model. The root problems are low internal equity and low external competitiveness of pay structure which reflecting in the Fixed Annual Cash (FAC) and Basic Salary Structure. To resolve that issue, the recommendation is re-designing pay structure of PT VNI and then developing policy to relate compa-ratio and performance with salary increment to catch up the market positions (FAC Percentile 75). The process of re-designing pay structure using the guideline from Armstrong and Murlis (2004:208) about “10 steps to design pay structure”. Those all steps resulting a new pay structure for PT VNI that have more clear progression rate, improve the internal equity and more competitive in the market. In order to implement the new pay structure and compa-ratio policy the main resource required is financial budget. PT VNI need to prepared additional 1.26% for basic salary increment budget (Initial budget 11.11%), total budget 12.37%. Also IDR 257.695 (Thousand) for lump sum cash payment for over pay employee.

*Keywords: HAY Group Engaged Performance Model, Pay structure*

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## 1. Introduction

PT Victoria Nusantara Indonesia, Tbk. (VNI) was established on 1982 to execute a strategic role in manufacturing tinplate product to fulfill the growing demand for tinplate packaging materials in Indonesia market. To raise funds in support of continued development into the next level, PT VNI completed an initial public offering (IPO) and listed its shares on the Indonesia Stock Exchange on 2009. In conjunction with the IPO, there was a transfer of majority ownership, of 55%, from State Owned Company to Japanese Consortium.

PT VNI runs the operations from Head Office located at Jakarta, while production activities are centralized at the plant site, located in Cilegon. Since 2013, additional support was given for sales activities with the opening of representative office in Surabaya, responsible for serving customers in Surabaya and surrounding areas as well as the eastern part of Indonesia. In total, number of employees of PT VNI at the end of December 2014 is 342 employees.

PT VNI Producing two forms of tinplate, coil and sheet. Total market share in Indonesian Tinplate Consumption (Data 2013) is 67%. The competitors mainly coming from Korea, China, Taiwan, Malaysia and India. In context of relation with customer the approach is Business to Business (B2B). The customers could be differentiated based on the category and segments as Indonesian Association of Can Packaging Producers (APKKI), Milk, Battery, Food, Biscuit and General.

In context of tinplate manufacturing process there are two main raw materials required Tin Mill Black Plate (TMBP) and Tin. The suppliers of TMBP mainly from Japan and Korea, and Tin supplier is from Indonesia, PT Timah (Persero), Tbk.

The business issue that faced by PT VNI is tight price competitions with imported tinplate that caused by oversupply of tinplate (Global tinplate demand: 16 Million Tons/Year; Total production capacity: 25 Million Tons/Year) and also zero percent (0%) import duties from Korea (AKFTA). The impact of this situation makes PT VNI projected suffered loss in 2014 for (USD 5 Million).

Learning from the result in 2014 and based on market forecast 2015, PT VNI strategies in 2015 are:

1. Sales

- a) Strengthened Milk Market to Maximize Profit
- b) Gauge Down (Lowering thickness) from 0.16 to 0.15 as a Long Term Growth Strategy
  - To enclosure Customers.
  - To differentiate PT VNI Value and Strength from imported tinplate.
- c) Low Tin Coating Promotion to Maximize Profit and Production Volume
  - To increase profit by encourage customers to shift to Low Tin Coating from TFS (Tin Free Steel).
  - To keep market share in General Can Market.

2. Production

- a) In the first half of 2015, in order to achieve the target of prime yield, PT VNI will concentrate to improve the quality. Target December 2014 Prime Yield 91.39% and in May 2015 Prime Yield targeted 95.61%.
- b) In the second half of 2015, PT VNI will increase production speed to expand capacity. Target in the first quartile 2015 Production Speed 280 mpm and in the fourth quartile 2015 production Speed become 300 mpm.
- c) PT VNI also will improve tin consumption rate to reduce the operation cost.

## 2. Business Issue Exploration

### 2.1. Conceptual Framework of Reward Management and Employee Engagement

Reward management is concerned with the formulation and implementation of strategies and policies that aim to reward people fairly, equitably and consistently in accordance with their value to the organization (Michael Armstrong and Helen Murlis, 2004:1). The strategic aim of reward management is to develop and implement the reward policies, processes and practices required to support the achievement of the organization's business goals (Michael Armstrong and Helen Murlis, 2004:1).

Engaged employees enjoy their work, feel valued, and are proud to tell people that they work for the Company. They go the extra mile to help their customers and colleagues, and they want to stay and develop a career with the Company. In the long run they are the real contributors (<http://www.digitalopinion.co.uk/>: 2014).

In the late 1990's Hay Group developed a model from their employee opinion and reward work, which looked not just at the transactional and relational elements of reward but focused also on what employees defined as a compelling, high-performance workplace (Michael Armstrong and Helen Murlis, 2004:13).

Hay Group Engaged Performance Model consists of six elements there are quality of works, work/ life balance, inspiration/ values, enabling environment, future/ growth opportunity and tangible rewards.

The details of above elements captured in the figure below:

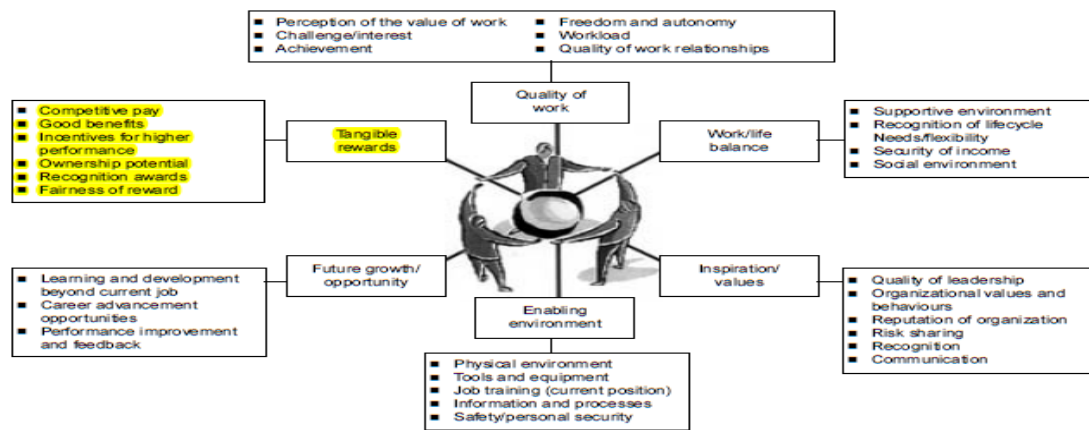


Figure 1 Hay Group Engaged Performance Model

According to the above figure we could identify that the tangible rewards has a contribution to the engagement level of the employee.

## 2. 2. Analysis of Business Situation

In context of reward management there are several issues faced by PT VNI:

### 1. Low satisfaction level in the elements of reward

According to PT VNI Employee Engagement Survey Data 2011-2013, the satisfaction rate in the element of reward mainly in the aspect of work compensations are under 50%. Satisfaction percentage in the aspect of work compensations year 2013 are 43 %, only increase 2% compare to 2012. Only 43% employee evaluates that salary received balance with the Job Load and personal competencies, and also work performance equals with salary increment.

Based on regression analysis toward all variables in the engagement survey 2013, the result shows that reward has the highest impact toward employee engagement level. Therefore to increase the engagement level, company could make first intervention on its aspect. The details of statistical analysis captured below:

Table 1. Regression Analysis Result of Engagement Aspect

No	Independent Variables	R	R Square
1	Work it self	0.644	0.415
2	Relationship With Co-Workers	0.587	0.345
3	Work Supervision	0.704	0.496
4	Personal Development	0.549	0.301
5	Career Development	0.757	0.573
6	Working Condition & Work Equipments Fulfillments	0.547	0.299
7	<b>Reward</b>	<b>0.817</b>	<b>0.668</b>
	Work Benefit	0.485	0.236
	Intangible Reward	0.721	0.519
	Work Compensation/ Remuneration	0.693	0.48

## 2. Low internal equity

Internal equity refers to the relative values assigned to different jobs within an organization and how reasonable those values are, both within job families and among comparable jobs throughout the organization. Based on HAY Salary Survey Report 2014, PT VNI has low internal equity which can be describe in the aspect of basic salary, fixed annual cash, shift and non shift allowance, overtime and non overtime, and also the progression rate as captured in the figures below:

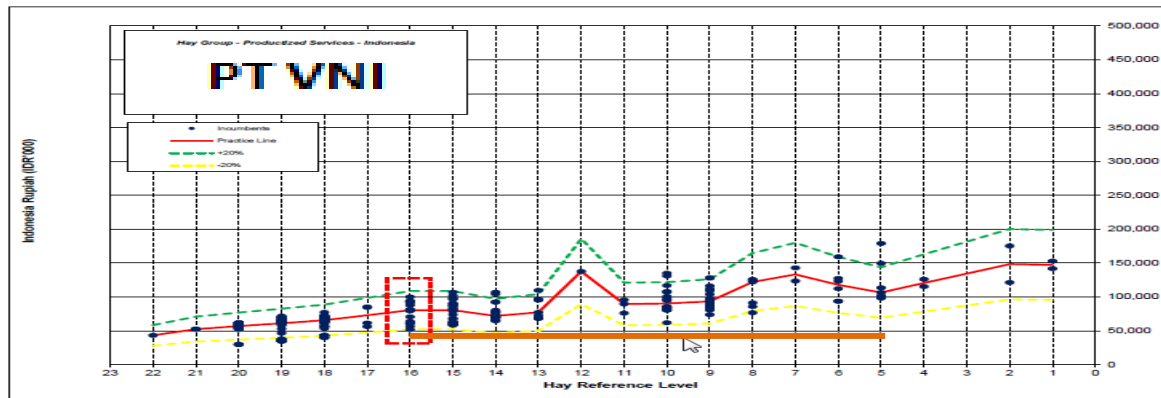


Figure 2. Internal Equity of Basic Salary PT VNI

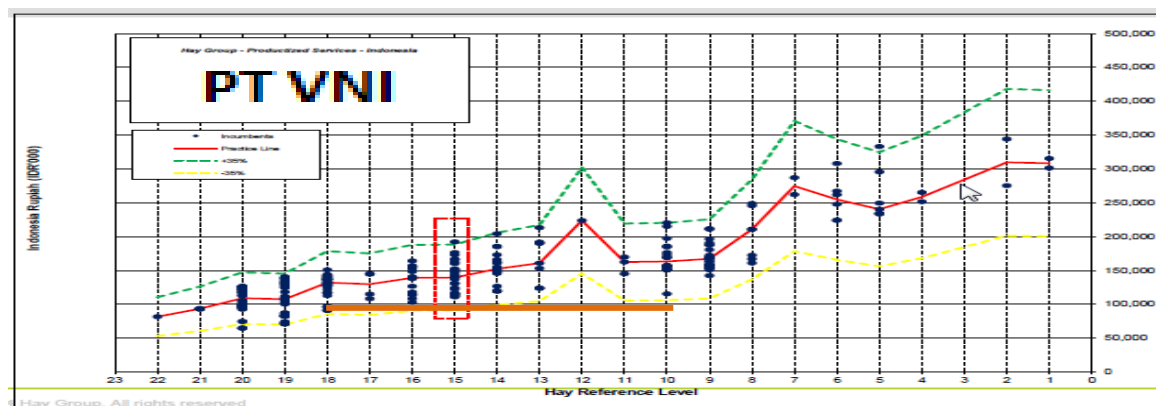


Figure 3. Internal Equity of Fixed Annual Cash (FAC)

### Remarks:

Basic Salary : 12 month basic salary

Annual Base Salary : Basic Salary + THR + Other Fixed Payment

Fixed Annual Cash : Annual Base Salary + (Transportation, Housing, Meal, Car and Mobile Allowance)

### Grade

1—3: General Manager; 4—7: Manager; 8—12: Superintendent; 13—17: Supervisor; 18—22: Officer.

Based on above figures, we could identify that there were many employee in each grade received both Basic Salary and Fixed Annual Cash below the practice line (median value) and or above the practice line which causes by have no policy to relate the compa-ratio (distance between individual salary with median value in the pay structure) with basic salary increment. Currently, PT VNI only has basic salary increment due to Cost of Living Adjustment (COLA) and also annual Performance Appraisal (PA).

In addition, it was have no significance gap between one layer positions to higher positions. For example, in the basic salary, employee in the grade 16 (Supervisors) could have same basic salary compare with employee in the grade 5 (Manager). And also in the Fixed Annual Cash employee in the grade 18 (Officer) could have higher Fixed Annual Cash compare with employee in the grade 10 (Superintendent).

### 2.3. Overtime and Non Overtime

There are big difference of Fixed Annual Cash between overtime (Officer Level) and non overtime employee (Supervisor—General Manager), the details captured below (HAY Salary Survey Report, 2014):

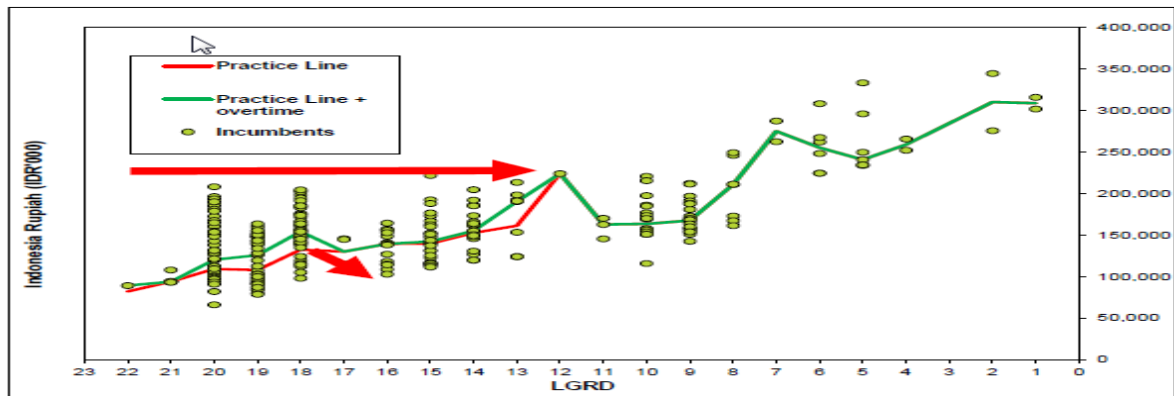


Figure 4. FAC Comparisons between Overtime and Non Overtime Employee

According to above figure, the workers in Grade 18 up to Grade 22 received similar Fixed Annual Cash (FAC) compare to workers in Grade 17 up to Grade 13. Gap between workers in Grade 18 to Grade 17 are not significant, moreover actual data shows Grade 18 receives higher FAC compare to Grade 17 due to overtime eligibility in Grade 18. The impact of its treatment makes the promotion process becomes not attractive. The officers prefer to stay in the officer level.

### 2.4. Progression Rate

Low internal equity that related with low promotion attractiveness also influence by narrow and have no clear standardization of percentage gap between one grades to other grade as captured in the table below:

Table 2. Existing Basic Salary Structure of PT VNI

Position	Grade	Basic Salary Structure			Progression Rate
		Mid	Mid	Max	
General Manager (GM)	1	11,824,719	18,191,876	24,559,033	8.9%
	2	10,857,176	16,703,348	22,549,520	8.8%
Manager	3	9,980,329	15,354,353	20,728,377	8.6%
	4	9,186,614	14,133,252	19,079,890	8.5%
	5	8,468,491	13,028,447	17,588,403	8.3%
	6	7,818,401	12,028,309	16,238,217	7.8%
	7	7,252,519	11,157,721	15,062,923	2.6%

<b>Superintendent</b>	8	7,067,466	10,873,025	14,678,584	2.4%
	9	6,900,403	10,616,005	14,331,607	2.7%
	10	6,720,494	10,339,221	13,957,948	5.8%
	11	6,350,408	9,769,859	13,189,310	5.6%
	12	6,014,590	9,253,215	12,491,840	5.4%
<b>Supervisor</b>	13	5,706,186	8,778,747	11,851,308	5.0%
	14	5,432,049	8,356,998	11,281,947	11.2%
	15	4,886,330	7,517,431	10,148,532	12.9%
	16	4,328,061	6,658,556	8,989,051	13.6%
	17	3,811,016	5,863,102	7,915,188	13.9%
<b>Officer</b>	18	3,345,676	5,147,194	6,948,712	14.8%
	19	2,914,805	4,484,315	6,053,825	16.6%
	20	2,500,561	3,847,017	5,193,473	18.0%
	21	2,118,522	3,259,264	4,400,006	20.7%
	22	1,754,676	2,699,501	3,644,326	

### 3. External Competitiveness Issue

In context of external competitiveness issue, in 2014 PT VNI was conducted HAY Salary Survey to compare PT VNI reward position toward market. The benchmark companies are capture in the table below:

Table 3. PT VNI Benchmark Companies for HAY Salary Survey 2014

No	Companies	Country of Origin	Nature of Business	Product
1	Ancor Flexibles Indonesia	Australia	B to B	Manufacture (Packaging)
2	Bekaert Indonesia, PT	MNC	B to B	Natural Material (Steel)
3	Bluescope Steel Indonesia, PT	Australia	B to B	Natural Material (Steel)
4	Hitachi Construction Machinery Indonesia, PT	Japan	B to B	Manufacture ( Industrial Machinery )
5	Holcim Indonesia Tbk, PT	Switzerland	B to B & B to C	Building Material (Cement)
6	Indocement Tungal Prakarsa Tbk, PT	German	B to B & B to C	Building Material (Cement)
7	IPM Operations and Maintenance Indonesia	Japan	B to B	Electricity (Power Plant)
8	Komatsu Indonesia, PT	Japan	B to B	Manufacture (Commercial Vehicles and Trucks)
9	Lafarge Cement Indonesia PT.	France	B to B & B to C	Building Material (Cement)
10	Mulia Glass Container Division PT.	Indonesia (FOB)	B to B	Building Material (Glass)
11	Mulia Glass Float Division PT.	Indonesia (FOB)	B to B	Building Material (Glass)
12	Mulia Glass Safety Glass Division PT.	Indonesia (FOB)	B to B	Building Material (Glass)
13	Muliakeramik Indahraya PT.	Indonesia (FOB)	B to B & B to C	Building Material (Ceramic)
14	Petrojaya Boral Plasterboard, PT	Australia	B to B & B to C	Building Material (Plasterboard)
15	Poly Packaging Industry, PT	Indonesia (FOB)	B to B	Manufacture (Packaging)
16	Toba Bara Sejahtra	Indonesia (FOB)	B to B	Natural Resources (coal mining)
17	Trakindo Utama, PT	Indonesia (FOB)	B to B	Manufacture (Commercial Vehicles and Trucks)
18	Ultrajaya Milk Industry Tbk, PT IPM Operations and Maintenance	Indonesia (FOB)	B to B & B to C	Fast Moving Consumer Goods (Milk)
19	Vale Indonesia Tbk, PT	Brazil	B to B	Natural Resources (nickel mining)

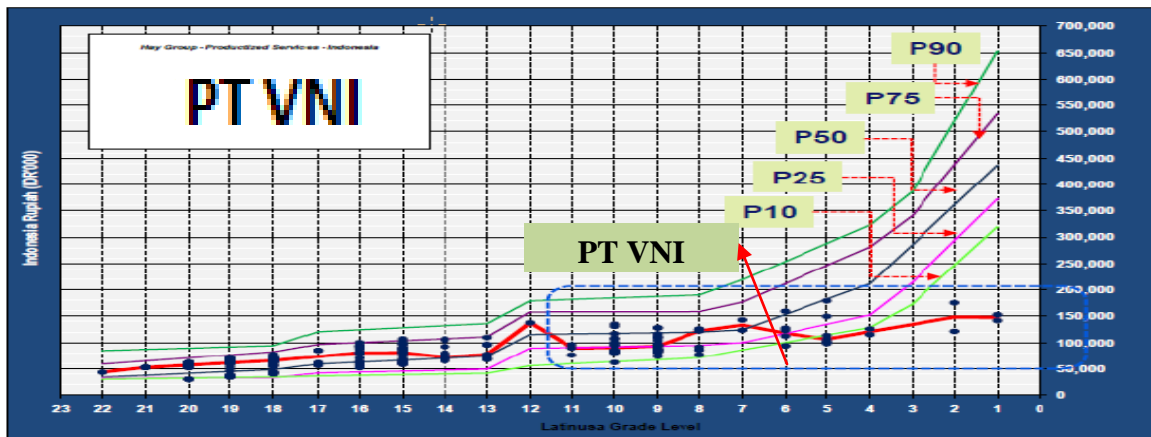


Figure 5. PT VNI Basic Salary Position

Based on above figure, we could identify that PT VNI Basic Salary position for Grade 12—22 already competitive ( $\geq$  Percentile 50). However, for Grade 1—11 not competitive yet ( $\leq$  Percentile 50).

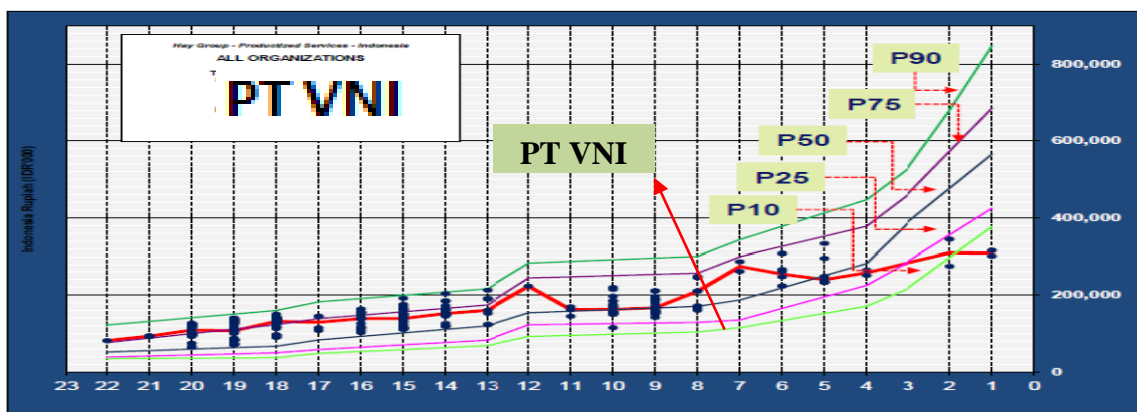


Figure 6. PT VNI Fixed Annual Cash (FAC) Position

Based on above figure, we could identify that PT VNI FAC position for Grade 4—22 already competitive ( $\geq$  Percentile 50). However, for Grade 1—3 (General Manager Level) not competitive yet ( $\leq$  Percentile 50).

### 3. Business Solution

#### 3. 1. Alternative of Business Situation

According to the business issues analysis, the alternative solutions is re-designing pay structure to improve the internal equity and external competitiveness and then developing policy to relate compa-ratio and performance with salary increment.

#### 3. 2. Analysis of Business Solution (Re-Designing Pay Structure)

According to Michael Armstrong and Helen Murlis in a book titled *Reward Management A Handbook of Remuneration Strategy and Practice* chapter 16 there are 10 steps to design new pay structure with details as follow (2004:208):

1. List the jobs placed within each grade on the basis of job evaluation;
2. Establish the actual rates of pay of the job holders;

3. For each grade, set out the range of pay for job holders and calculate their average or median rate of pay (the pay practice point);
4. Obtain information on the market rates for benchmark jobs where available. If possible this should indicate the median rate and the upper and lower quartiles;
5. Agree policy on how the organization's pay levels should relate to market rates – its 'market stance'. This could be at the median or above the median if it is believed that pay levels should be more competitive;
6. Calculate the average market rates for the benchmark jobs in each grade according to pay stance policy, e.g. the median rates. This produces the range market reference point;
7. Compare the practice and market reference points in each range and decide on the range reference point.
8. Examine the pay differentials between reference points in adjacent grades.
9. Decide on the range of pay around the reference point.
10. Review the impact of the above pay range decisions on the pay of existing staff. Calculate the costs of bringing them up to the minimum.

The technical details of above steps explained as follow:

### Step 1: Job Grade Evaluation

Job evaluation is a systematic process for defining the relative worth or size of jobs within an organization in order to establish internal relativities and provide the basis for designing an equitable grade and pay structure, grading jobs in the structure and managing job and pay relativities (Michael Armstrong and Helen Murlis, 2004:112)..

List of PT VNI job grade are ranging from Grade 1-22 . The job evaluation basis in PT VNI using *The Hay Guide Chart Profile Method*. The Hay Guide Chart Profile Method is a factor comparison scheme. It uses three broad factors (Know-how, Problem Solving and Accountability), each of which is further divided into sub-factors, although these cannot be scored individually. The summary of those factors are captured below (Michael Armstrong and Helen Murlis, 2004:636):

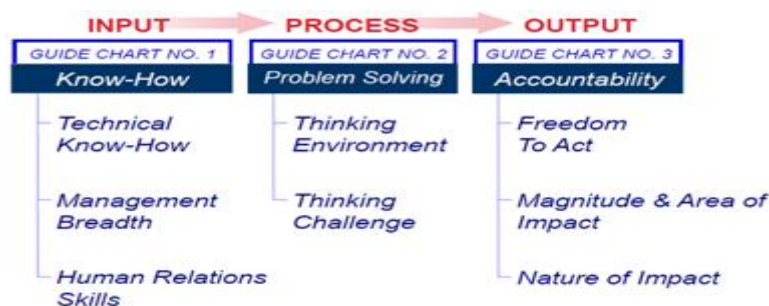


Figure 7. HAY Job Evaluation Factors

### Step 2: Actual Pay of the Job Holders

The actual pay calculated based on the existing nominal of employee cut off December 2014. The aspect is Fixed Annual Cash (FAC) with the formula as follow:

FAC = Annual Basic Salary (12 Times) + THR + Other Fixed Payments (13<sup>th</sup> Salary + Leave Allowance) + Annual Fixed Allowances (Transportation + Housing + Meal + Shift + Car Allowance + Mobile Phone Allowance)



Step 3—7: Pay Differentials (Pay Structure and Actual Practice) with Reference Market

Based on the result in the Step 2 and also the data of reference market of 19 companies (See Table 3) the pay differentials are captured in the table and figure below:

Table 4. Data FAC of PT VNI and Reference Market

Position	Grade	FAC Market		FAC Mid Structure	FAC Existing (median)
		FAC P75	FAC P50		
<b>General Manager (GM)</b>	1	685,801,354	565,811,840	398,425,703	308,545,697
	2	573,751,000	477,365,000	375,651,224	309,795,374
	3	461,701,350	388,917,375	355,011,601	284,230,981
<b>Manager</b>	4	378,217,406	305,231,777	329,818,756	258,666,589
	5	352,118,000	278,631,600	312,915,239	240,537,216
	6	326,020,000	252,249,050	297,613,128	254,950,346
	7	299,924,343	220,318,265	284,293,131	274,746,448
<b>Superintendent</b>	8	277,249,598	206,343,174	216,562,283	210,733,032
	9	264,164,300	192,024,355	210,229,877	167,228,075
	10	251,079,000	187,255,650	205,995,081	163,294,144
	11	235,993,700	173,656,707	197,283,843	162,517,058
	12	215,908,200	156,674,532	189,379,190	223,787,849
<b>Supervisor</b>	13	194,788,448	134,722,263	170,644,829	161,019,079
	14	183,956,000	127,118,698	164,192,069	152,437,357
	15	167,124,000	115,386,130	151,346,694	139,433,911
	16	148,292,000	102,294,390	138,205,907	139,201,202
	17	139,460,639	96,118,072	126,035,461	129,805,452
<b>Officer</b>	18	123,352,653	77,372,347	105,137,068	132,206,688
	19	111,728,000	63,505,100	94,995,020	107,659,803
	20	100,097,000	59,730,000	85,244,360	109,008,245
	21	88,466,000	55,954,900	76,251,739	93,480,304
	22	76,827,282	52,179,917	67,687,365	81,776,831

Notes: FAC Market taken from HAY Salary Survey Report 2014.

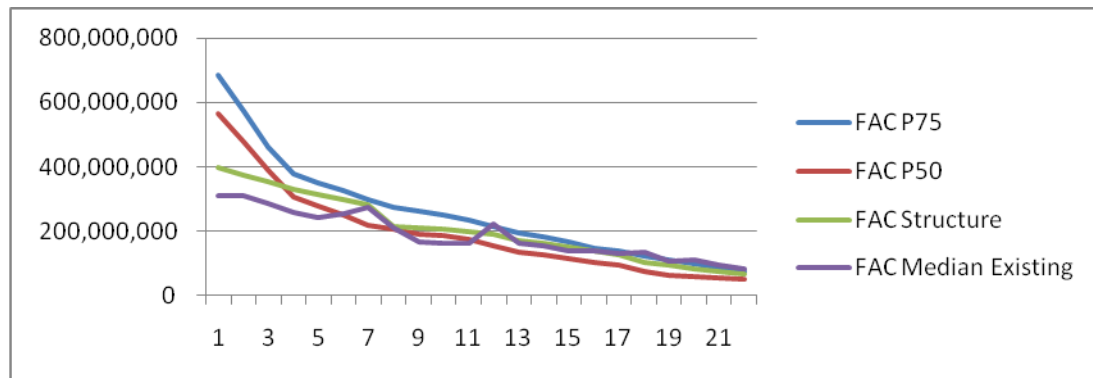


Figure 7. Pay Differentials of PT VNI and Reference Market

According to the above figure we could identify the things as follow:

1. PT VNI FAC structure
  - Grade 22 until 4 already competitive (In between of FAC P50 and FAC P75).
  - Grade 3 until 1 below the market (< FAC P50).
2. Actual Payment
 

Even the FAC structure mostly above the market, the actual payment shown employee in the grade 11,10,9,5,4,3,2 and 1 are below the median structure and below the market (< FAC P50).

Based on above explanations and discussion with Management (PT VNI Board of Directors, Personal Interview, 24/10/2014), the guideline to go to step 8 and 9 are:

1. PT VNI strives to go to FAC P75 as a basic market references (Targeted Policy Line).
2. To go to FAC P75 and considering company financial conditions, the aspect to improve is basic salary structure. Other FAC Elements are staying the same.
3. The basic salary structure should able to make difference between overtime and non overtime eligible group and also have significant progression rate between job bands.
4. The basic salary structure also should able to inline the compa-ratio with the performance.
5. The cost budget for the new structure increment is 11.11% which already include the increment due to inflations for 8.36% ([www.bi.go.id](http://www.bi.go.id), 2014).
6. The implementations start for payment April 2015.

#### Step 8—9: Basic Salary Structure Design (Range in Grade and Progression Rate)

The process on this step is as follow:

1. Deciding minimum pay for the lowest grade (Grade 22). The nominal refer to the constitution UU Number 13/2013 that stated the minimum basic salary is 75% from fixed allowances. The fixed allowances refer to Cilegon Minimum Wage 2015, IDR 2,760,590 ([www.radarbanten.com](http://www.radarbanten.com), 2014), therefore the minimum basic salary for Grade 22 is IDR 2,070,460.
2. Considering the FAC in the Officer Level and Supervisor Level already same or slightly above FAC P75 therefore the Mid Value in Grade 18 and Grade 13 keep in the same nominal.
3. Considering currently 75% of PT VNI employees age are more than 45 years old and has length of service period for more than 21 years therefore to anticipate over pay the range between scale keep in the range 30%.

4. The progression rate between Job Bands are 20% exclude from the Officer Level to Supervisor Level (To differentiate between overtime and non overtime group), the progression rate is 35%.
5. The progression rate in each internal Job Bands is variety adjusted with the company's budget.

The result of this step as follow:

Table 5. New Basic Salary Structure of PT VNI

		Monthly Basic Salary Structure							
		Current		Progre sion	New Structure		Progre sion		
GM	1	11,824,719	18,191,876	24,559,033	8.9%	17,500,000	25,000,000	32,500,000	8.2%
	2	10,857,176	16,703,348	22,549,520	8.8%	16,180,430	23,114,900	30,049,370	8.2%
	3	9,980,329	15,354,353	20,728,377	8.6%	14,960,400	21,372,000	27,783,600	20.0%
Manager	4	9,186,614	14,133,252	19,079,890	8.5%	12,467,000	17,810,000	23,153,000	5.0%
	5	8,468,491	13,028,447	17,588,403	8.3%	11,868,220	16,954,600	22,040,980	5.0%
	6	7,818,401	12,028,309	16,238,217	7.8%	11,298,140	16,140,200	20,982,260	5.0%
	7	7,252,519	11,157,721	15,062,923	2.6%	10,755,500	15,365,000	19,974,500	20.0%
Superint endent	8	7,067,466	10,873,025	14,678,584	2.4%	8,962,870	12,804,100	16,645,330	5.0%
	9	6,900,403	10,616,005	14,331,607	2.7%	8,536,080	12,194,400	15,852,720	5.0%
	10	6,720,494	10,339,221	13,957,948	5.8%	8,129,590	11,613,700	15,097,810	5.0%
	11	6,350,408	9,769,859	13,189,310	5.6%	7,742,490	11,060,700	14,378,910	5.0%
	12	6,014,590	9,253,215	12,491,840	5.4%	7,373,800	10,534,000	13,894,200	20.1%
Supervis or	13	5,706,186	8,778,747	11,851,308	5.0%	6,140,802	8,772,574	11,404,346	6.0%
	14	5,432,049	8,356,938	11,281,947	11.2%	5,793,209	8,276,013	10,758,817	6.0%
	15	4,886,330	7,517,431	10,148,532	12.9%	5,465,292	7,807,559	10,149,827	6.0%
	16	4,328,061	6,658,556	8,989,051	13.6%	5,155,935	7,365,622	9,575,309	6.0%
	17	3,811,016	5,863,102	7,915,188	13.9%	4,864,090	6,948,700	9,033,310	35.0%
Officer	18	3,345,676	5,147,194	6,948,712	14.8%	3,603,040	5,147,200	6,691,360	14.9%
	19	2,914,805	4,484,315	6,053,825	16.6%	3,137,050	4,481,500	5,825,950	14.9%
	20	2,500,561	3,847,017	5,193,473	18.0%	2,731,330	3,901,900	5,072,470	14.9%
	21	2,118,522	3,259,264	4,400,006	20.7%	2,378,040	3,397,200	4,416,360	14.9%
	22	1,754,676	2,699,501	3,644,326		2,070,460	2,957,800	3,845,140	

Based on above structure, the new FAC Structure Position becomes as follow:

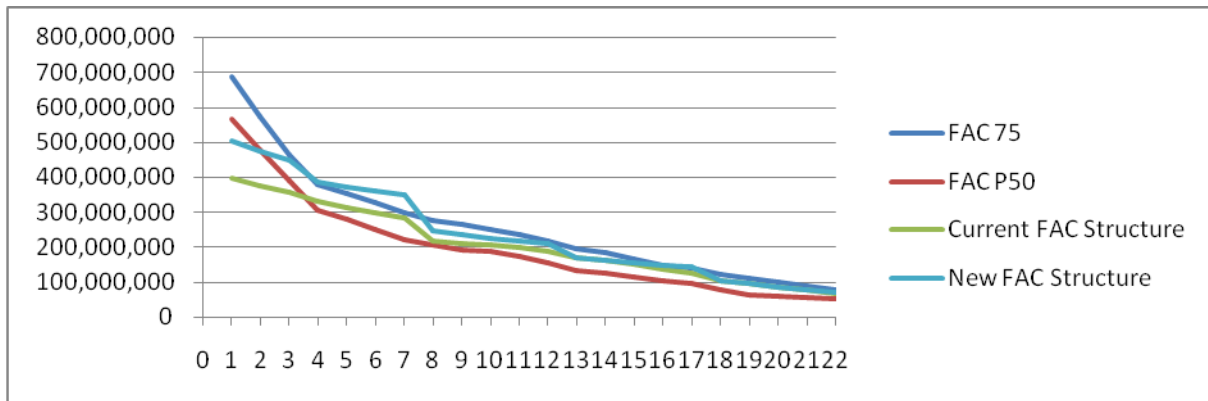


Figure 8. New FAC Structure Position of PT VNI compare to Reference Market

Table 6. The Difference Summary of New FAC Structure Position

Grade	Current	New
Grade 22 until 4	In between of FAC P50 and FAC P75	<ul style="list-style-type: none"> <li>– Grade 17, 16, 12 equals with FAC P75 line</li> <li>– Grade 7 until 4 above FAC P75 line</li> <li>– Other grade become more near to the FAC P75 line</li> </ul>
Grade 3 until 1	Below the market ( FAC P50)	Still below FAC P50 but slightly near the line

Step 10: Cost Impact

To make the cost impact simulations the step is as follow:

1. Calculating the individual compa-ratio or the gap between employee basic salary and mid value basic salary structure.
2. Developing the policy to relate compa-ratio and performance appraisal with basic salary increment.

According to Michael Armstrong and Helen Murlis in a book titled *Reward Management A Handbook of Remuneration Strategy and Practice* chapter 21 this method called as *Pay Progression* that indicates the percentage increase payable for different performance ratings according to the position of the individual in the pay range (2004:289).

Pay progression in a graded structure is typically planned to decelerate through the grade for two reasons. First, it is argued in line with learning curve theory that pay increases should be higher during the earlier period in a job when learning is at its highest rate. Second, it assumed that the central or reference point in a grade represents the market value of fully competent people.

Based on above theory and the identification of employee compa-ratio ranging from 44 % until 134 % and also the existing PT VNI performance appraisal system, the recommendation as follow:

Table 7. Recommendation of Compa-Ratio and Performance Appraisal Relation in Basic Salary Increment Policy

No.	PA	Compa-ratio					Low – Min (60%-70%)		Min-Mid (70%-100%)		Mid-Max (100%-130%)	
		40%	50%	70%	100%	130%	Slope	Interce pt	Slope	Interce pt	Slope	Interce pt
1	A1	6.20 %	6.20 %	4.75 %	4.25%	2.60%	- 7.3%	9.8%	- 1.7%	5.9%	- 5.5%	9.8%
2	A2	5.70 %	5.70 %	4.25 %	3.75%	2.10%	- 7.3%	9.3%	- 1.7%	5.4%	- 5.5%	9.3%
3	B1	5.20 %	5.20 %	3.75 %	3.25%	1.60%	- 7.3%	8.8%	- 1.7%	4.9%	- 5.5%	8.8%
4	B2	4.70 %	4.70 %	3.25 %	2.75%	1.10%	- 7.3%	8.3%	- 1.7%	4.4%	- 5.5%	8.3%
5	B3	4.20 %	4.20 %	2.75 %	2.25%	0.60%	- 7.3%	7.8%	- 1.7%	3.9%	- 5.5%	7.8%
6	B4	3.70 %	3.70 %	2.25 %	1.75%	0.10%	- 7.3%	7.3%	- 1.7%	3.4%	- 5.5%	7.3%
7	C1	3.20 %	3.20 %	1.75 %	1.25%	- 0.40%	- 7.3%	6.8%	- 1.7%	2.9%	- 5.5%	6.8%
8	C2	2.70 %	2.70 %	1.25 %	0.75%	- 0.90%	- 7.3%	6.3%	- 1.7%	2.4%	- 5.5%	6.3%
9	D	2.20 %	2.20 %	0.75 %	0.25%	- 1.40%	- 7.3%	5.8%	- 1.7%	1.9%	- 5.5%	5.8%
10	E	1.70 %	1.70 %	0.25 %	- 0.25%	- 1.90%	- 7.3%	5.3%	- 1.7%	1.4%	- 5.5%	5.3%

3. Collecting assumptions data of employee performance appraisal score (Performance year 2014). As reference we used PT VNI Performance Appraisal Data 2013.
4. Calculate total basic salary increment of each employee due to performance appraisal, compa-ratio and also inflations (Cost of Living Adjustment) for 8.36%.
5. Identify the position of employee basic salary after the increment and compare it with new basic salary structure (Under, within and over pay).
6. Adjusted the under and over pay position to the minimum and maximum basic salary structure. The reference of this step following PT VNI regulation, BOD Decree, Number: HK.00.01/05/0000/2009, Article (8) that stated:

- The adjustment of basic salary conducted if employee basic salary after increment is under and or over the basic salary structure.
- For under pay, the adjustment is used the minimum basic salary structure in employee grade.
- For over pay, the adjustment is used the maximum basic salary structure in employee grade. The difference with maximum basic salary structure paid lumpsum (x12).

7. Calculate the impact on the aspect of basic salary and also to the FAC.

Based on above steps the cost impact is as follow:

Table 8. Cost Impact

No	Aspect	Current (Annual, 000)	New (Annual, 000)	Impact (%)
1	Basic salary cost	IDR 23,573,397	IDR 26,488,747	12.37%
2	FAC Cost	IDR 45,316,615	IDR 48,872,769	7.85%
3	Lumpsum Cost for Over Pay Basic Salary		IDR 257,695	

The impact on individual Basic Salary and FAC describe in the figures as follow:

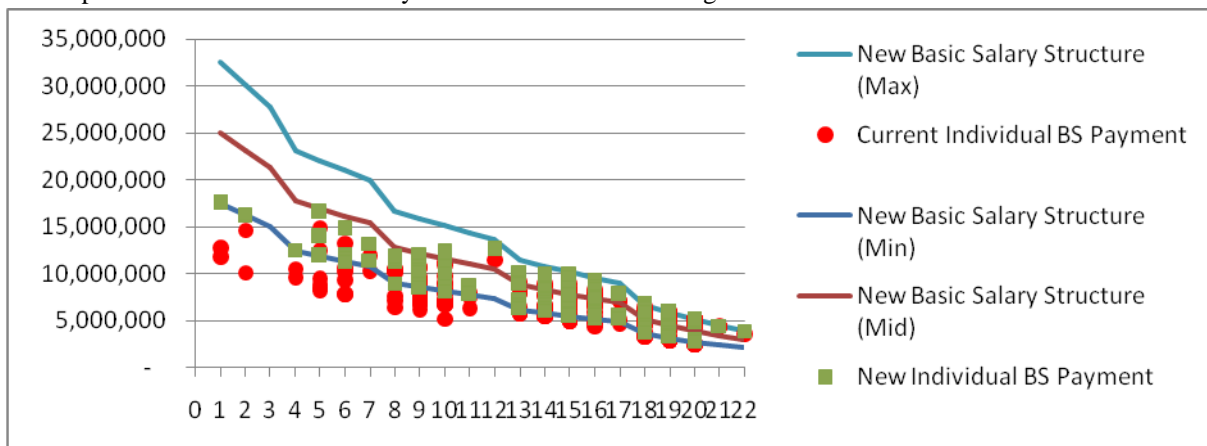


Figure 9. New Individual Basic Salary Payments

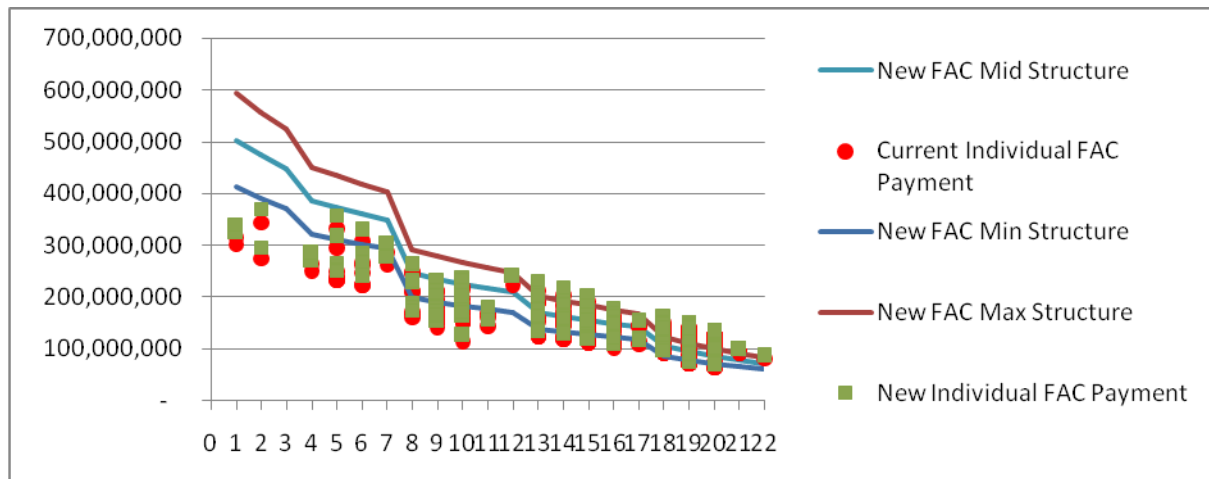


Figure 10. New Individual Fixed Annual Cash (FAC) Payments

### 1. Conclusion and Implementation Plan

In order to implement the new pay structure the main resource required is financial budget. According to the calculation of cost impact, PT VNI need to prepared additional 1.26% for basic salary increment budget (Initial budget 11.11%), total budget 12.37%. Also IDR 257,695 (Thou) for lumpsum cash payment for over pay employee.

The implementation plan of new pay structure proposed to be implement on April 1, 2015 as stated in the PT VNI Joint Working Agreement (PKB), Article (35) Point (4) “*The basic salary structure will be reviewed and adjusted every year in April for the latest, based on the discussion between Company and Labor Union and will be set in BOD Decree*”.

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# The Success of Small and Medium Enterprise (SMEs) Development Based on Human Resource Management Practices in Indonesia

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## Abstract

The successful development of small and medium enterprises (SMEs) in Indonesia must always aligned to be Indonesian SMEs are ready to face any challenge, including the ASEAN Economic Community (AEC) which came into force in December 2015. As the largest market in ASEAN. With increasing consumerism of society, in fact, can be an opportunity for Indonesian SMEs to expand its business. The study aims to determine the human resource management practices in SMEs are successful in Indonesia and to know the main variables that affect the success of SMEs in Indonesia. The results of this study are expected to be a reference for SMEs and government to develop SMEs in Indonesia. This is exploratory research. Samples were culinary SMEs, chosen at random and has been operating at least 15 years and with a sales turnover continuously increasing. Primary data was collected with the help of a questionnaire accompanied by interviews. Results: the success of SMEs development in Indonesia because SMEs has a superior product and have many varian as a result of ongoing innovation and the owner of SMEs are indeed individuals who are creative and have a soul researchers. Considers and treats its human resources as the primary wealth that determines the success of the company. They implement human resource management practices, although not formally written. All processes ranging from recruitment, selection, placement, training, reward and punishment, promotion and dismissal of employees, conducted through the procedures with clear criteria. And their policies are made very consider maintenance aspects of labor. They also implement phylosophy of human resource management : the right man on the right place.

Limitations: It is a preliminary study and qualitative. Sample of 30 SMEs selected from the city of Jakarta, Bogor, Bandung and Bekasi – Indonesia.

*Keywords:* The success of SMEs development; Human resource management practices; Culinary SMEs

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## 1. Introduction

### 1. 1.Problem back ground

Small and Medium Enterprises in Indonesia so far has demonstrated its power as a pillar of the national economy including resistance to recession. Even its contribution to national GDP of 53.32 percent is higher than large enterprises that only 41.00 percent, and the government sector amounted to 5.68 percent (BPS, 2009). However, a lot of weaknesses Indonesian SMEs, especially in terms of competitiveness. This is shown by the results of a survey of the World Economic Forum (WEF) on the competitiveness of Asian growth, which ranked Indonesia continued to decline. In In 2003 ranked 72 of 102 countries, in 2004 ranked 69th out of 104 countries, and in 2005 ranked 74 of 117 countries. In addition, the quality of Human Resources (HR) Indonesia only be in the order of 108 (UNDP, 2006). This position is under Malaysia (32), Brunei (53), and Thailand (57). This condition will greatly endanger the existence of Indonesian SMEs moreover, will face the enactment the Asean Economic Community (AEC) in December 2015. Indonesia as the largest market in ASEAN because the population is large (4th largest world) will certainly be contested by all businessmen in the ASEAN countries. Therefore, SMEs in Indonesia should immediately be improved. So Indonesia's SMEs remains an important part in the development of national economy. Thus, The large number of Indonesian population is accompanied

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by increasing high levels of consumerism, it's become benefit for Indonesia. it is mean Indonesia not just be a market for other nations and do not make Indonesia a nation that colonized in his own country.

For Indonesian SMEs, increase competitiveness is an important thing that must be done immediately. The best way that possible and can be done is to strengthen the internal factors of SMEs. This is due to internal factors absolutely controllable by the owners of SMEs, so that repairs can be done at any time. According to Delaney and Huselid; macDuffie (1995) and Thompson (1996), the success of managing internal factors will have a significant contribution to the success of a business. The internal factors that it is the key to success is its human resources (HR). This is because the good human resources management will produce quality human resources. According to Barney (1991), the resources and the power of high-quality human resources made the company has a sustainable competitive advantage. For SMEs, good HR management practices need to be pursued so that SMEs are able to develop their human resource assets and prevent SMEs from wastage because an error in the recruitment, selection, placement, awards system and in the maintenance of labor.

### 1.2. Research objective

- a. To know the human resource management practices in successful of SMEs development in Indonesia.
- b. To know the main variables that affect the success of SMEs development in Indonesia.

### 1.3. The Importance of Research

The results of this study can be used as a reference for the improvement of SMEs in Indonesia by improving the practice of managing its human resources. So SMEs in Indonesian can be success to expand its business through increase productivity and competitiveness

### 1.4. limitation

This research was conducted in the city of Jakarta, Bogor, Bandung and Jakarta. they are the cities that are on the island of Java which is the most populous island in Indonesia. This research is preliminary study, so it only involves 30 SMEs Culinary samples from all four cities. The research conducted to obtain a description the real situation of SMEs in particular how human resource management practices in SMEs that become sample and not be analyzed quantitatively.

## 2. Literature review

Shaikh et al., (2011), said that a worldwide fact is SMEs are an important part of a development of the nation's economic and social structure. Some studies also show that SMEs have a significant contribution to economic development, both in industrialized countries and developing countries (Berry e al, 2002; Hill, 2001; Tambunan, 2007, 2008). Meanwhile, in today's global competition, the quality of human resources is one of the most important competitive factors of companies (HOLÁTOVÁ, D. et al., 2014). And qualified human resources to be strongly associated with innovations that can be done by the company (Bal et al., 2013). The results of research in Indonesia also shows that the labor has positive and significant impact on the success of the business (Nasution, Sari, IG., Muchtar, YS. (2013). And the quality of the workforce significantly affect productivity (Ariani, Suresmiathi, D. (2013).

However, until now, human resources management practice in SMEs in Indonesia, is still very limited. generally process that carried out by SMEs is an internal recruitment and training of specific production. While for the practice of management of human resources such as training, employees retention, etc. not too concerned. That is because most small business owners consider the proximity and very careful. This is so that human resources are trained not profitable for competitors (St-Hilaire, 2010). In terms of employees retention in SMEs, it is the human resource management practices that require separate skills. This is because the compensation associated with employees retention in most SMEs in Indonesia, is still relatively small.



According to Bernardin and Russell (1993), human resource management related to withdrawal (recruitment), selection, placement, development, compensation, maintaining (retention), evaluate, and promote within the organization. Medium Scherhorn, J.R. (2010), states that the Human Resource Management is a process of attracting, developing, and maintaining a talented work force. Thus the human resource management is part of organizational life that focuses on the management and utilization effectively to increase the productive contribution to the organization by means of strategies, ethical, and socially accountable (Walters, 1985; Werther, Jr. And Davis, 1996). Meanwhile, Schuler and Huber (1993) told that human resource management practices is a specific action measures are used to attract, motivate, train, and retrain workers for the activity of human resources in general activities (planning, staffing, assessment, compensation, training and development, and establish and maintain effective working relationships). And human resource management practices are carried out progressively (characterized by an increase in performance, the ability of employees, employee motivation and flexible work structures), can improve competitiveness business (Delaney and Huselid, 1996; Tannenbaum and Dupurre- Bruno, 1994). With progressive resource management practices, the businesses can survive in the middle of the business environment full of uncertainty and turbulence (TIYANTO, P.PH., 2009). Associated with SMEs, Greenbank (2001) states that the definition of success is composed of a number of criteria that include the level of income, job satisfaction, work time, control and flexibility. Choveke and Armstrong (2000) explained that the criteria for entrepreneurial success is when they are able to manage their businesses through the growth, development and sustainability.

### 3. Methodology

This study is an exploratory and qualitative research, conducted in SMEs that are domicile in Jakarta, Bogor, Bandung and Bekasi. SMEs were selected into sample was 30 SMEs culinary that considered successfully expand its business, with criteria: has been operating at least 15 years and with a sales turnover continuously increasing. Data collected by using questionnaires and interviews, secondary data were obtained from the relevant agencies and desk research. The analyzes were performed descriptively.

### 4. Results And Discussion

At first, researcher hypothesized that the success of SMEs to develop itself into the greater due to the ability of SME owners in managing their human resources. it means that human resource management practice have run. The hypothesis is based on the premise that because of the level of education of human resources in the majority of SMEs are relatively lower and the compensation received relatively smaller Compared with these workers in large companies with similar ability levels. Therefore, it takes a more managerial capabilities to be able to steer HR in SMEs and keep his motivation remains high. Because of The successful SMEs are assumed as SMEs that has been operating at least 15 years and with a sales turnover continuously increasing. the reason is SMEs with this condition are due to the success of its human resources management and have been running the human resource practice.

However, after doing research with the help of questionnaires and in-depth interviews on a sample of SMEs, is found that there are major and other important variables that precede what is hypothesized. It is the presence of a quality product and varied as a result of ongoing innovation by SMEs owners. From the interview can also be concluded that SME owners are individuals who are creative, innovative and have a high curiosity (spirited researchers). The result of interviews can be summarized as follows:

- a. The main variables of an SME could still exist and thrive is the superior product produced. Superior here in the sense of quality that is always well maintained and new innovations that continue to be made by the owner so that the varian of products continue to evolve. New product variants continue to be pursued through research / experimental results continuously conducted by the owners of SMEs.
- b. All owners of SMEs that are studied, are creative people who always want to know, is never satisfied with what has been obtained. Always make new innovations based on research / experiment that always conducted SME owners by utilizing all the information they have.

- c. From the beginning of business, small business owners always directly control the operations of the company including the production process so that the product quality is consistently maintained.
- d. In terms of human resources recruitment, employee initially taken from the surrounding area, then develop in relatives / friends of the place of origin of the employees who incoming first
- e. The initial selection is done merely to know the origin, level of education and ability. The next selection is done from result of observed and monitor by owner when the new employees do apprenticeship .
- f. Observation and monitoring by owner of SMEs is not limited in work activity alone, but also on his personal character, especially that associated with honesty and good behavior. like no drinking liquor. When employees indicated dishonesty and have a habit of drinking, then they will be excluded / not be accepted as an employee. This also applies to employees who are already senior.
- g. SME owners are always observing and monitoring the work of employees is not only make them diligent work, but more important is to find the potential of its employees. Then employees who have potential more from which they have done will be offered other types of work in accordance with its potential. Further, employees are trained and ditempatka in a more appropriate place according to his ability. Placement on the type of work that is more precise, it is usually associated with improvement / enhancement of compensation to be received by the employees concerned.
- h. In terms of compensation, the owner of implement policies that employees must feel safe at work, in the sense that they can rely on the company in terms of meeting their needs without misgivings are not paid. Even if there is an urgent condition, the owner / leader ready to help SMEs find a way out, including in order to their family
- i. The owner of SMEs has a philosophy that their employees is part of him and the company. So if the owner was happy because the company grew and profit increases, then employees have to feel happy too. It is manifested in the form of additional incentives. These incentives in additional money form or free for homecoming activities together for who live outside the city with cost. companies. It is because many of employees from the same home town, because in recruitment is a lot of employees who are relatives / friends / neighbors of senior employees.
- j. In some SMEs are studied, there are joint activities undertaken by management and employees once a week with reduced of working hours. Usually in the form of sports activities facilitated by the company. This is done to eliminate the psychological gap between leaders and subordinates as well as the relationship among employees in order to become liquid, not rigid, so communication is fluently. With this activity, the leadership of SMEs become more familiar, more knows the character and personality of each employee. It is very useful to implement policies put right employees at the right place and will be useful also for the career development of its employees.
- k. Policies in human resources management practices as do the owners of SMEs who becomes the object of research, causes of low employee turnover and increasing employee loyalty. This can be seen from no employees that out of the company despite there are offer of compensation which is more attractive than other SMEs.

## 5. Conclusion

- a. The success of SMEs develop in sample of study because SMEs has a superior product and have many varian as a result of ongoing innovation by owner of SMEs. The owner of SMEs are indeed individuals who are creative and have a soul researchers.
- b. Considers and treats its human resources as the primary wealth that determines the success of the company.
- c. Implement human resource management practices, although not formally written. All processes ranging from recruitment, selection, placement, training, reward and punishment, promotion and dismissal of employees, conducted through the procedures with clear criteria. And policies are made very consider maintenance aspects of labor.
- d. Using phylosophy of human resources management : the right man on the right place.

## 6. Suggestions

- a. This study should be continued by increasing the number of samples that represent all of Indonesia so that a wider generalizations, so the results of research can be used as a reference in developing SMEs in Indonesia.
- b. Research should be continued with the quantitative measurement using statistical analysis to determine the effect of innovation variables and sub variables of human resource management practices that most affect the success of SMEs.
- c. Research also can be continued by measuring how the role of leadership and organizational culture on the success of SMEs and determine how the model of leadership and organizational culture that effective for SMEs. Thus, it can be obtained more detailed description associated with the success of SMEs.

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# Transition of Malaysia towards Knowledge Society by 2020: Ethical Consideration on the Use of Electronic Gadget in Malaysia Schools

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## Abstract

Due to demands to full fill necessity of K-economy towards Vision 2020, Malaysia is now on the race to create more Information Technology (IT) literate. Education sector has been targeted to be an introduction sector to implement Information and Communication Technology (ICT) tools to advance learning and teaching processes. As such, Government of Malaysia has been working on few strategies to introduce electronic gadget applications in Malaysian schools to improve quality of education inclusively. In this study, we have conducted a survey to study the needs and acceptability of electronic gadgets such as mobile phones in schools, then analyzed outcome of survey accordingly. The result of the survey shows level of acceptance on the use of electronic gadget in schools and ethical consideration has been considered to decide best decision to overcome its negative impacts. Based on ethical consideration, the use of electronic gadgets in schools should be permitted as it brings more valuable benefits towards nation and society well-being. Malaysian to maintain high level of ethics and morality act to be able to use and handle knowledge well.

*Keywords:* IT gadgets; Mobile phone; Information and Communication Technology; Malaysia Schools

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## 1. Introduction

### 1. 1. ICT as enable tools towards K-economy status in Malaysia

Moving towards Vision 2020, Malaysia needs to ensure that it remains as a country with dynamic, productive and fast growing economic to be on par with other leading region in the world. Therefore, a strategic initiative has been made in year 2002 by Government of Malaysia (GoM) to develop knowledge-based economy (K-economy). The K-economy will provide the foundation to sustain rapid growth of Malaysia's economy while enhancing international competitiveness by improving nation capability to innovate and adapt indigenous technology; including design, develop and market new products. Most importantly, information and communication technologies (ICTs) are pillars for the success of K-economy.

As Internet is the key driver of ICT tools, users need to be equipped with disseminating knowledge to be able to develop e-based activities as new approaches to do things toward Vision 2020. Thus, strategically GoM has launched National IT Agenda (NITA) and the Multimedia Super Corridor (MSC) as the foundation of the Strategic Framework for Bridging the Digital Divide to provide and facilitate essential infrastructure requirements for enable Internet access within nation. GoM also formed Malaysian Communications and Multimedia Commission (MCMC), an organization responsible to promote utilizations of resources using ICT as enabler tools. Briefly these efforts explain the transformation efforts of Malaysian society through technological advancement to become information-rich society.

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## 1. 2. ICT Progress in Malaysian Education

Education has become as a powerful tool to promote economic and social development. Therefore incorporating ICT into education is one way to ensure equitable development through universal and society which are important player to create, innovate, generate and exploit superior knowledge. Few strategies and exploitation in existing education development framework have been done to value added ICT tools. ICT gadgets such as mobile phones, tablets and personal computer makes learning more interesting, encouraging, inspiring and significant to the children, the early adapters of ICT gadgets. As such, GoM has been working thoroughly through few initiatives such as SMART school, Computer Literacy, Computers in Education, Electronic Book Program and Universal Services Project to ensure proper infrastructure and delivery of ICT-based knowledge up until rural schools and community to bridge the digital divide gap in Malaysia. The use of ICT gadgets as for teaching and learning material accommodate various needs and capabilities, resulting more independent children who are able to manage their own learning at quicker phase.

## 1. 3. Role and Importance of ICT in Education

There are various advantages of using IT gadgets and mobile phone in Malaysian schools and we have identified it as eLearning process, where it uses electronic media such as personal computer, smart phones and other information technology (IT) gadgets as communication tools in education.

### 1. 3. 1. Increased Access to Education through ICT

By having IT gadgets such as smart phone and personal IT gadgets, teachers can plan their lesson along with various resources available such as YouTube, Interactive CD ROM, visual concept, and 3D view. Thus, this exerts impact on the outcome of the learning through eLearning as it represents continuation of improvement and ability to accommodate different teaching styles, while increase chances for student success.

Besides that, IT gadgets in school also allows students to be independent due to availability of information instantly and students can access to the most up-dated and relevant data in shorter time. Thus encourage students to work collaboratively to find information for projects or assignment, thus promoting spirit of team work by sharing of knowledge and skills among students.

Besides quality information, student also capable to download and share teaching material via their smart mobile phones anywhere at any time and save the need of printed material for learning purposes. Additionally, Marwan (2013) said that mobile phones and IT gadgets also allows effective and efficient completion of test, assignment, examinations and quizzes that enable quick, fast, and real-time scores while promoting accurate and precise scoring.

### 1. 3. 2. Improves Quality of Education through ICT

By using IT gadgets at school, it promotes and broaden the quality and flexibility of teaching material while increasing the efficiency and effectiveness of education system. Here, rather than depending on printed material such as textbooks and hand-outs, teacher are capable to update learning material according to latest information and made it available to students within short period of time in effective manner using emails. Furthermore, having IT gadgets for teaching keeps student's interest high while boosting their enthusiasm for learning. With technology, students have the option of learning visually, textually, through auditory means or even with a hands-on approach, manipulating physical objects instead of simply watching or reading about them.

### 1. 3. 3. Challenges imposed by use of mobile phones and other IT gadgets in school

On the other hand, Internet as the key driver of ICT tools for electronic gadgets does impose disadvantages to students. Main challenges are students become victims of cybercrime and scams, less real life communication as students are too much addicted to the use of electronic gadgets, infringement of information privacy rights while exposing themselves for unknown data mining, examination cheating and merely as distraction material during school hours.

#### 1. 3. 4. *Cyber Crime and Scams*

Mobile phones and IT gadgets also allows students to communicate with world without limitation including unknown from other part of the world. Cyberbullying is simply means the use of mobile phones and IT gadgets to cause psychological and emotional disturbances. Examples of cyberbullying is to make treats, provocation, harassment, racial arguments, and virus. Here, students are being mentally abused by virtual world that affecting students. Besides that, students also becoming popular group for online scam activities because they are easily convinced by online advertisement and virtue-world human. Other than becoming victim of online activities, students also exposed to inappropriate images and information such as pornographic from pop-up advertisement and notices.

#### 1. 3. 5. *Hinder Relationship and Health*

Mobile phones and IT gadgets are addictive and many students are losing their normal physical activities to static position with mobile phones and gadgets as it provides everything needed for communication with outside world. Students becoming self-content leads to real-communication difficulties. Besides, studies also said that the more time students spend time on mobile phone, the more disagreement happens between them and others like parents and even teachers at school. Studies also mentioned that addiction or degree of attachment towards the mobile phone and electronic gadgets would cause students to experience symptoms such as anxiety, depression or even lack of sleep, which would interfere with their overall psychological functioning.

#### 1. 3. 6. *Privacy Rights*

Mobile phones and IT gadgets said to be very important as it allows information on fingertips, but it also impose disadvantages to certain extend. Students might be exposed to open web environment where companies can do information pull without their notifications. Other than this, by having so many information available within them, students also may involve with plagiarism to complete task given in the school, thus reducing the quality and knowledge level of the students.

#### 1. 3. 7. *Cheating*

Smart mobile phones are equipped with various specifications and applications that allows room for cheating during examination in school. Pictures and messages or even a captured picture can be send out to someone to help them in the examination. This activity shift the overall benefits of mobile phones in school.

#### 1. 3. 8. *Distraction*

A study also shown that school children are more prone to get addicted with games than study time including homework and reading time. Other than games, most of the online activities that are possible with mobile phones or IT gadgets such as online activities, videos, music, and chatting are addictive and can levy distraction from whole concept of having mobile phones for education purposes. Thus this activity can interrupt normal teaching environment in the school as students more interested on texting or playing games rather than focusing during lecture session.

## 2. Methodology

### 2. 1. Sample

In this analysis paper, we have decided to conduct analysis based on survey questionnaires send to 35 peoples including students, parents and public all around Malaysia. The survey question were based on the needs of having electronic gadgets such as mobile phones in schools and negative outcome may encounter due to mobile phones.

### 2. 2. Data Collection

The survey questionnaire collected through emails and analyzed. Data collected from the survey were keyed into Microsoft Excel for further analysis and discussion. Survey form used as questionnaire is attached as Appendix 1.

### 3. Results and Data Analysis

The survey were completed by 35 people from secondary schools, work place and parents in Malaysia. Figure 1 shows respondent response to every question asked on the use of electronic gadget such as mobile phones in school.

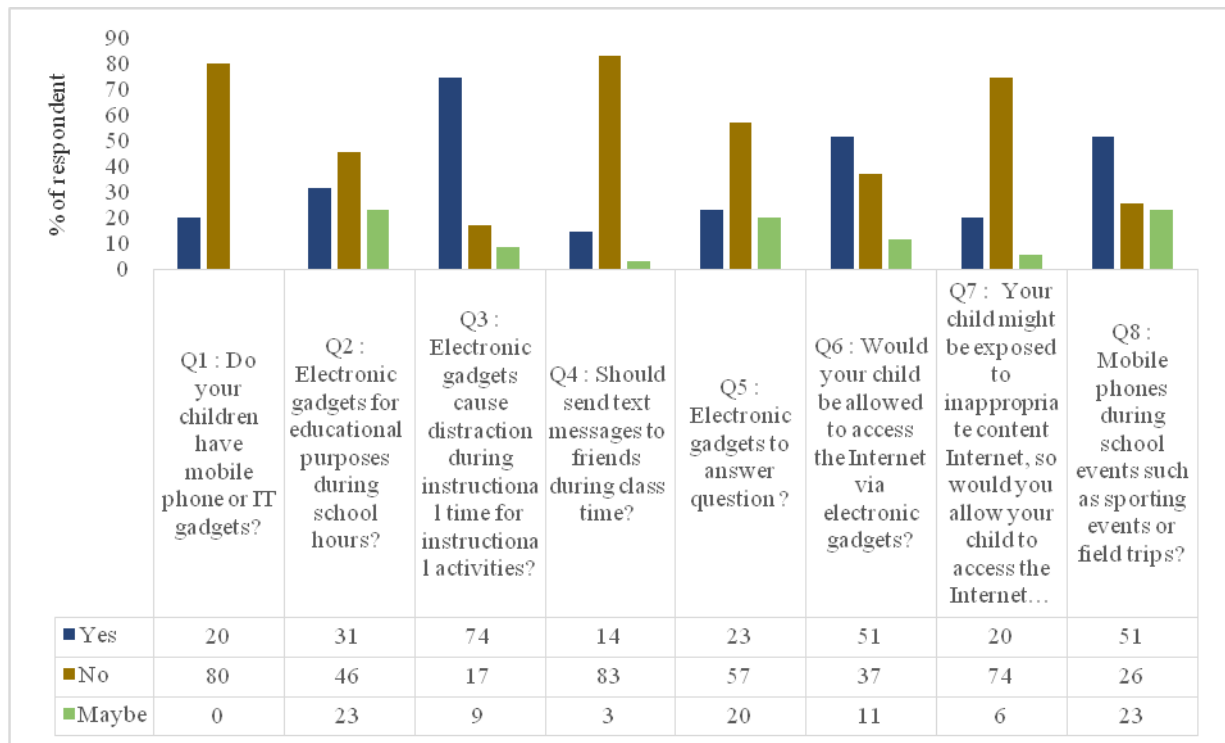


Figure 1: Questionnaire Responses

The data shows that 80% of the respondent does not have kids in school with gadgets such as mobile phones. While asked on probability they allow and prefer electronic gadgets during school hours, 46% of respondent doesn't prefer it while 36% of respondent will allow the use of electronic gadgets during school hours. Responding to question that gadgets such as mobile phones as distraction material, 74% said it causes distraction during lesson teaching hours while 17% disagree that mobile phones causing distraction.

The question then related to the needs of student to text their friends during class hours, where 83% respondent totally disagree which tally similarly with respondent respond on previous question that gadgets such as mobile phones causes distraction in class. Due to availability of Internet access in most of school, 57% of respondent mentioned that gadgets should not be used as medium to answers question in the class or exams, while 23% are agreed to use mobile phones to answer questions.

Respondent also were asked on their view if they will allow children to access Internet via electronic gadgets at school, 51% of them answered yes they will due to its benefits while 37% are not agreeing with Internet use via electronic gadget in school. Then we asked on their response if respondent will allow kids to access Internet while exposing to inappropriate content, as such now only 20% said yes while 74% of respondent will not allow their kids to access Internet via mobile phones due to this drawback.

And final question related to the ease of communication between students and parents, especially when students are out of school area for sports or field trip, here 51% of them said it is important for students to have mobile phones while 26% said it is not relevant and 23% of respondent probably allows depending on situation.



#### 4. Discussion

The survey analysis showed that the use of electronic gadgets in the schools is relatively depends on its applicability. Majority of respondent doesn't agree with the use of electronic gadgets such as mobile phones in schools due to its drawback.

As we can see from the results, majority of respondent (>70%) agreed mobile phones as distraction material in the classes because students will be fascinated by new technology, applications and will be busy exploring it rather than focusing on teaching sessions. Also, due to limitation on security filter and blocking, majority of respondent are not agreeing with the use of gadgets to access Internet as student are being exposed unintentionally to inappropriate material such as pornography.

Thus, from overall results from this survey, we can conclude that respondents does not prefer the use of mobile phones in schools due to distraction and security reasons. Therefore, we have decided to conduct ethical analysis based on 5-steps analysis method to conclude best practice to overcome drawbacks impose by the use of electronic gadgets in schools.

##### 4.1. Step 1: Identify and clearly describe the facts

- i. The use of electronic gadgets in schools bring disadvantages to student. These including affecting student's studies performance while leading to low success rate and create negative impact on student's moral values.
- ii. Students able to cheat in test and examination by having mobile phone and access to Internet.
- iii. Students are exposed to cybercrime such as sexual harassment, cheating, scams, virus, hackers etc. because they easily cheated by virtual world community and becoming victim of online scams.

##### 4.2. Step 2: Define the conflict or dilemma and identify the higher order values involved

###### 4.2.1. Conflicts

- i. Government and Education Ministry of Malaysia created policies and working towards implementation of ICT facilities in school to target ICT literate moving towards Vision 2020. But, having cutting-edge technologies on hand, students are being exposed to dark side of it which upsetting their performance in school.
- ii. The disadvantages of electronic gadgets offset its advantages, therefore receive objection from parents and public for ICT implementation in schools.

###### 4.2.2. Higher order values

- i. Virtue
  - Low because students and provider (government) are not benefiting from electronic gadgets use in schools.
- ii. Common Good
  - Low because distraction, cheating and victim of cybercrime affecting student's performance in school.
- iii. Utilitarian
  - Low because the objective of ICT implementation is not achieved, it created more negative impact to students.
- iv. Fairness
  - Low because the technology is not being manipulated to counter benefit providers.

#### 4.3. Step 3: Identify the stakeholders

Table 1: Stakeholders identified

Stakeholder (s)	Affected (Yes / No)	Why?
Ministry of Education	Yes	Because they allow, provide and implemented ICT tools at schools
Students	Yes	Because they affected by negative impact of the use of electronic gadgets
Parents	Yes	Because children are failing, thus not trusting capability of ICT to improve education and against its implementation in schools
Virtual Community	No	Because they use students as victims

#### 4.4. Step 4: Identify the decision that you can reasonably take

Decisions need to be taken to solve two issues here that lead to disagreement of mobile phones usage in schools, first electronic gadgets as distraction material during lesson hours and secondly the effects of limited security and blocking settings on electronic gadgets such as mobile phones to filter inappropriate content from World Web Website.

Based on utilitarianism theory, which says right action needs to be taken to produce greatest good, we have decided that the use of electronic gadgets in schools is ethically right and should be allowed despite of it as distraction medium. This is because electronic gadget provides valuable improvement in education sectors and creating more knowledgeable and out-performing students. Besides, judgments on its consequences to the society and economic are greater than little negative impacts on students which can be controlled by involved parties. Basically, teachers play major role over the control of electronic gadgets use in schools to avoid repeated distractions and interruption during lesson hours. Proper communication and advice on the use of electronic gadgets in schools while respecting students' rights and autonomy on electronic gadgets can make them realize the importance of focusing in classroom. To certain extend, creating classroom policy is good as well to avoid misuse of electronic gadgets for non-educational purposes during class hours. Besides that, teachers also should create creative learning environment as in group or problem-based learning method, so that only limited amount of mobiles phones needed for the team work. This also will encourage students to share information gained from Internet to their respective mates, not on the device. On the other hand, parents also need to provide guidance on the positive use of electronic gadgets and Internet that produce creative energies to be utilized in a healthy and constructive manner overall. Referring to second issues of exposure to inappropriate content via Internet access, policy makers and security bodies such as Cyber Security should ensure those inappropriate material are automatically deleted by software or application once detected. Basically, through Kantianism theory, we agreed that the use of electronic gadgets as mobiles phones should allowed in controlled manner to increase student's enthusiasm and interest to explore more on the subjects while increasing success rate.

On the other hand based on Kantianism theory, Ministry of Education sees electronic gadgets as a means, not an end itself. Their objective and mission to implement ICT tools is to educate students and to benefit Malaysia in future, to full fill Vision 2020 towards K-economy. As such, the implementation and the use of electronic gadgets in schools should be encouraged and proper regulation and security check need to be imposed to avoid negative impact of the electronic gadgets to students. The Ministry and related agencies such as Cybersecurity, MSC etc. are confident that with proper implementation, electronic gadgets capable to revolutionize education this improving learning system in Malaysia. Few implementation efforts are include Education ICT Policy where ICT tools used as enabler tools to bridge digital divide, enhancement of ICT tools as education material

and ICT itself as subjects in school to teach on appropriate use of Internet and Communication to students. Besides that, government should continue and upgrade their effort on ICT implementation throughout nation to ensure every students are exposed to electronic gadgets and able to access to Internet access to benefit outmost. Apart of improving application of electronic gadgets in school, government also should revise and review existing law and regulation to tighten security check overall in Internet access in Malaysia. This allows students to be in safer surfing environment avoiding inappropriate messages and images such as pornography. Besides that, Information Technology (IT) bodies and agencies needs to keep up and update security check with evolving technology to prevent scam and virus attack that can lead to serious problems involving students. The Guardian (2012) also mentioned that school policy use will be initial start up to control the use of electronic gadgets in schools. Cyber-bullying and disruptive behaviours does create concern but proper control and lesson on Internet use and mobile device , it will be more on learning than as destructive medium. Basically, through Utilitarian theory, we agreed that the use of electronic gadgets as mobiles phones should be implemented by GoM in by imposing regulations as well to reduce cybercrime and other security issues. As we aware, students are most cherished members of the society yet vulnerable to harm, abuse, violence and exploitation. And on the other hand, Internet is the key driver of information, education and communication whilst exposing threats and risk to student safety, security and privacy. Thus, both need to be aligned strategically to ensure greater good to well-being.

#### 4.5. Step 5: Identify the potential consequences of the decision made

As described earlier at para 1.3.1 and 1.3.2, students and teacher will benefit the most in improving access to education while improving quality of education using electronic gadgets as enabler tools. Thus, increasing ICT literate to achieve more knowledgeable society by 2020. Law enforcement on cyber security will reduce the number of cybercrime, allowing parents to be more confident on Internet access in schools as knowledge tools.

### 5. Conclusion

The misuse of electronic gadgets in schools can be overcome by imposing right law, effective technical security, administrative and advance precaution and preventive measurements to protect safety, security and privacy of the students. Successful country like Korea is taking mentioned measurements, as such being the most wired society in the world. They have security and technology that can automatically detects and delete any items of pornography and send signals to authority about uploader for further action. Implementation and enforcement in education field is not easy as being said and written. It will need to go through many challenges and obstacles, yet once it is on the smooth transition, Malaysia should be one of the country well-advance on using electronic gadgets in schools. The implementation of eLearning in Malaysia still at infant stage and need supports from involving stakeholders such as government, schools, parents, students as well as public to work together to achieve success. The use of electronic gadgets in schools enable utilizations of knowledge which are freely and readily available in positive manner to bring well-being and prosperity of nation rather focusing on destructive elements. Besides that, communication without boundary allows communication with individual in different parts of the world to provide opinion on subject matter. In a nutshell, it is important for Malaysian to maintain high level of ethics and morality act to be able to use and handle knowledge well. As such, Malaysia need to enhance and combine legislative, administrative, technical and social measures to ensure students are being protected while benefiting the most from ICT knowledge.

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## Factor that Determined Continuance Intention to Use Electronic Human Resource Management: An Empirical Investigation

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### Abstract

This study examines on a model extension of the attitude towards using Electronic Human Resource Management (E-HRM) by linking attitude to E-HRM continuance usage intention. Technology Continuance Theory (TCT) is adapted and integrated with Technology Acceptance Model (TAM), Expectation Confirmation Model (ECM), and Cognitive Model (COG) and empirical findings from prior studies about continued use of information systems. Research hypotheses derived from this model are empirically validated using the responses to a survey on E-HRM usage, collected from 193 E-HRM users. Based on the valid response collected from a survey questionnaire, Partial Least Square (PLS) was employed to examine the research model. The results indicated that the perceived usefulness, attitude and satisfaction were positively related to continuance usage intention of E-HRM. Perceived ease of use, satisfaction and perceived usefulness were positively related to attitude. Perceived usefulness and confirmation were also found to be positively related to satisfaction. Perceived ease of use and confirmation were found to be positively related to perceived usefulness.

*Keywords:* E-HRM; attitude; continuance usage intention; technology continuance theory; Malaysia

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### 1. Introduction

Human resource (HR) function has undergone dramatic change, owing, it would seem, to greater use of rapidly evolving information technology (Haines & Lafleur, 2004). The rapid development of Internet during the last decade has boosted the implementation and application of Electronic Human Resource Management (E-HRM) (Strohmeier, 2007). According to Olivias-Lujan, Ramirez, and Zapata-Cantu (2007), HRM departments using information and communication technologies (ICTs) is becoming an increasingly important phenomenon commonly referred to as E-HRM. E-HRM may improve efficiency and facilitate a shift in HR role to a more strategic level (Parry & Tyson, 2011), from an administrative paper-and-pencil handling entity (Haines & Lafleur, 2004; Olivias-Lujan et al., 2007) and labour-intensive HR tasks (Olivias-Lujan et al., 2007).

The term of E-HRM was first used in the late 1990's when "e-commerce" was sweeping the business world (Olivias-Lujan et al., 2007). E-HRM can be specifically defined as administrative support of the HR function in organizations by using internet technology (Voermans & van Veldhoven, 2007).

This study examines the factors that affect E-HRM users' continuance usage intention. We propose that E-HRM continuance usage intention is not only affected by satisfaction and attitude, but also other factors such as confirmation, perceived ease of use, and perceived usefulness. The resulting model is then useful in explaining the possibility to continue users' current experience with the E-HRM in the future.

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## 2. Research Model and Hypotheses

There were 10 hypotheses generated from the variables proposed.

### 2.1. Perceived Ease of Use

Perceived ease of use refers to “the degree to which a person believes that using particular system would be free of effort” (Sahi & Gupta, 2013). Perceived usefulness is also influenced by perceived ease of use because of other things are equal; the system (technology) could be more useful as long as it is easier (Venkatesh & Davis, 2000). Many researchers concluded, both theoretically and empirically, that the easy use of technology will lead to peoples’ perception of usefulness (Bukhari, Ghoneim, Dennis, & Jamjoom, 2013; Kim & Qu, 2014; Letchumanan & Muniandy, 2013; Lu, 2014; Morosan, 2014; Sahi & Gupta, 2013; Tsai & Ho, 2013; Yusliza & Ramayah, 2011a; 2011b). Thus, we set the following hypothesis:

*H1: Perceived ease of use has a direct positive impact on perceived usefulness.*

Several studies have demonstrated that there is a positive relationship between perceived ease of use and attitude (Letchumanan & Muniandy, 2013; Morosan, 2014; Tsai & Ho, 2013; Yusliza & Ramayah, 2011a; 2011b). For instance Morosan (2014) found a positive relationship between air travellers’ perceived ease of use on their mobile phones and their attitudes towards using mobile phones for purchasing ancillary air travel services. Hence, we hypothesize that:

*H2: Perceived ease of use has a direct positive impact on attitude.*

### 2.2. Perceived Usefulness

Bhattacharjee (2001a) uses the TAM to show that perceived usefulness is one of the primary motivators of IS acceptance and it can also influence subsequent continuance decisions. Therefore, the expectation-confirmation based IS continuance model proposes that perceived usefulness has a direct impact on satisfaction. Bukhari *et al.* (2013) proposed perceived usefulness of the web site positively influences the e-satisfaction with the airline web site. Besides them, many researchers have confirmed the positive relationship between perceived usefulness and satisfaction (Bhattacharjee, 2001b; Liao, Palvia & Chen 2009; Yusliza & Ramayah, 2011a). It can be assumed that user’s perception of usefulness of a technology have a significant positive impact on satisfaction. Thus,

*H3: Perceived usefulness has a direct positive impact on satisfaction.*

Perceived usefulness and perceived ease of use are considered as two external variables to influence user’s technology acceptance and these two factors will affect users’ attitude (Chi, 2011). It has been proven by various studies that attitude was the most contributors for perceived usefulness towards IS usage (Kim & Qu, 2014; Letchumanan & Muniandy, 2013; Morosan, 2014; Tsai & Ho, 2013; Yusliza & Ramayah, 2011a; 2011b). Thus, our fourth hypothesis is:

*H4: Perceived usefulness has a direct positive impact on attitude.*

In the classic IT continuance intention research model–ECM (Bhattacharjee, 2001b), perceived usefulness is validated to positively affect IT continuance intention. As highlighted by Ho (2010), TAM proposes that as the

degree to which a user believes an IS is helpful for his or her job increases, the degree of positivity toward continuance increases. When exploring continuance intention of customers based on their IT-related capabilities, social cognitive factor, and performance, the research findings showed that the most influential determinant of repurchase intention is perceived usefulness (Chen, Huang, Hsu, Tseng & Lee, 2010). Perceived usefulness has been found an important determinant of continuance intention (Gao & Bai, 2014; Lu, 2014; Yen & Tsai, 2011). In line with the literature, we hypothesize the same relationship for E-HRM users:

*H5: Perceived usefulness has a direct positive impact on E-HRM continuance usage intentions.*

### 2.3. Confirmation

Bhattacharjee (2001b) regards that confirmation is helpful in improving the rate of users' perceived usefulness. Some recent studies have found that confirmation have a positive influence on perceived usefulness (Chen *et al.*, 2010; Ho, 2010; Shiau & Chao, 2012; Tang & Chiang, 2010; Yen & Tsai, 2011). Thus, it can be summarized that:

*H6: Confirmation has a direct positive impact on perceived usefulness.*

Confirmation is a cognitive belief defined as the extent to which a user's expectation of the performance of an IS is realized during actual IS use (Bhattacharjee, 2001b). Many studies have validated the association between confirmation and user satisfaction in different contexts (Cao, Jiang, Oh, Li, Liao & Chen, 2013; Chen *et al.*, 2010; Ho, 2010; Kim, 2010; Shiau & Chau, 2012; Yen & Tsai, 2011). Thus, it can be summarized that:

*H7: Confirmation has a direct positive impact on satisfaction.*

### 2.4. Satisfaction

In relation to satisfaction and attitude, several studies have found that satisfied users are associated with forming positive attitude towards using the technology (Carlson & O'Cass 2010; Ho, 2010; Kim & Qu, 2014; Yusliza & Ramayah, 2011a). Hence, we infer that user-perceived satisfaction with E-HRM technology will positively affect attitude. Hence, we make the following hypothesis:

*H8: Satisfaction has a direct positive impact on attitude.*

User satisfaction has been seen as one of the most important issues in IS research and it has been linked to the continued use of IS (Bhattacharjee, 2001b). Due to its importance, organizations often invest significant amounts of financial and HR in the measurement and analysis of user satisfaction while simultaneously trying to improve the level of satisfaction (Najmul Islam, 2011). IS continuance intention is determined primarily by their satisfaction with prior IS use (Bhattacharjee, 2001b). Numerous studies have found a positive relationship between satisfaction and continuance intention (Cao *et al.*, 2013; Chen *et al.*, 2010; Yen & Tsai, 2011) particularly to the users of E-HRM systems. Thus, our next hypothesis is:

*H9: Satisfaction has a direct positive impact on E-HRM continuance usage intentions.*

### 2.5 Attitude

In this study attitude was defined as user preferences when using E-HRM. Past research has demonstrated that attitude is one of the factors influencing user intentions to continue adopt information systems (Chiang, 2013; Ho, 2010). For example Chiang (2013) discovered the test result shows that attitude is found to have a significant strong effect on intention to continue to use a given social networking site. Therefore, the following hypothesis was proposed:

H10: Attitude has a direct positive impact on E-HRM continuance usage intentions.

### 3. Methodology

In this section we discuss sample, data collection procedures and measurement of variables used in the study as well as the statistical tests used to evaluate the hypotheses.

#### 3.1. Sampling and Data Collection

Data were collected from E-HRM users within various multinational companies located in the state of Penang, Malaysia. The questionnaires were distributed personally to all E-HRM users from different job levels and functions within the organization. Out of the 300 questionnaires distributed to E-HRM users in this organization, 193 usable questionnaires were returned, yielding a response rate of 64.3 percent, which is considered acceptable.

#### 3.2. Variables Measurement

Six constructs were measured in this study. For each construct, a seven-point Likert scale, ranging from strongly disagree (1) to strongly agree (7) was adapted from previous studies. The sources of items, where they were taken from the literature are shown in Table 1.

Table 1. Variables and Measures

Construct	No. of Items	Source
Perceived Usefulness	4	Davis (1993)
Perceived Ease of Use	5	Davis (1993)
Attitude towards E-HRM	5	Davis (1993)
Confirmation	3	Bhattacharjee (2001b)
Satisfaction	4	Oliver (1980)
E-HRM Continuance Usage Intention	3	Bhattacharjee (2001b)

### 4. Data Analysis and Results

We analysed the data using SmartPLS version 2.0.M3 (Ringle, Wende & Will 2005) for two stages related to the measurement model and the structural model.

#### 4.1. Characteristics of Samples

There were 119 male and 74 female respondents. The average age and working experience with current organization of the sample was 34 years old and 8 years, respectively. They are dominantly Chinese (40.9%), followed by Indian (29.0%), Malay (28.9%), and others (1.6%). With regard to marital status, 57 percent of the respondents were married, 42 percent were single, and 1 percent was others. Out of 193 respondents, 106 (over 50%) had achieved a bachelor degree. Users from two types of multinational companies were represented in the sample (i.e. manufacturing,  $n = 135$ , service,  $n = 58$ ).

#### 4.2. Measurement Model

Following recommended two-stage analytical procedures (Chun et al., 2003) confirmation factor analysis was first conducted to assess the measurement model, then the structural relationships were examined.

#### 4.3. Reliability and Validity

To validate our measurement model, three types of validity were examined: content validity, convergent validity, and discriminate validity. Content validity was established by ensuring that the measurement items are consistent with the extant literature (Chou, 2010). This was done by both interviewing E-HRM users and pilot-testing the instrument.



Table 2. Measurement Model

Construct	Items	Loadings	AVE	CR
Attitude	ATT1	0.915	0.823	0.959
	ATT2	0.916		
	ATT3	0.921		
	ATT4	0.894		
	ATT5	0.890		
Confirmation	CONF1	0.905	0.803	0.924
	CONF2	0.934		
	CONF3	0.846		
Perceived Ease of Use	PEU1	0.873	0.810	0.955
	PEU2	0.926		
	PEU3	0.903		
	PEU4	0.904		
	PEU5	0.893		
Perceived Usefulness	PU1	0.905	0.862	0.961
	PU2	0.936		
	PU3	0.947		
	PU4	0.925		
Satisfaction	SAT 1	0.940	0.887	0.969
	SAT 2	0.951		
	SAT 3	0.951		
	SAT 4	0.924		
Continuance Intention	CON1	0.943	0.843	0.915
	CON2	0.893		

Note: CON3 was deleted due to low loading

AVE = Average Variance Extracted, CR = Composite Reliability

Convergent validity is the degree to which multiple items to measure the same concept are in agreement. We examined factor loadings, composite reliability (CR) and average variance extracted (AVE) from the measures (Hair, Black, Babin & Anderson, 2010). As recommended by Chin, Marcolin and Newsted (2003), 0.7 refers to the reliability threshold of a construct. As indicated in Table 2, CR values of the construct range from 0.915 to 0.969 which exceeded the recommended value of 0.7. For AVE, a score of 0.5 indicates acceptability (Fornell & Larcker, 1981). Table 2 shows that AVEs of the construct range from 0.803 to 0.887, indicating the acceptability of AVE.

Table 3. Cross Loadings

Items	Attitude	Confirmation	Continuance	Perceived Ease of Use	Satisfaction	Perceived Usefulness
ATT1	<b>0.915</b>	0.449	0.589	0.614	0.466	0.569
ATT2	<b>0.916</b>	0.496	0.605	0.608	0.479	0.553
ATT3	<b>0.921</b>	0.477	0.588	0.656	0.458	0.579
ATT4	<b>0.894</b>	0.546	0.556	0.647	0.518	0.500
ATT5	<b>0.890</b>	0.460	0.491	0.613	0.435	0.535
CON1	0.638	0.613	<b>0.943</b>	0.620	0.730	0.612
CON2	0.492	0.392	<b>0.893</b>	0.449	0.530	0.448
CONF1	0.485	<b>0.905</b>	0.474	0.507	0.567	0.556
CONF2	0.460	<b>0.934</b>	0.518	0.476	0.646	0.425
CONF3	0.492	<b>0.846</b>	0.521	0.481	0.671	0.420
PEU1	0.544	0.442	0.529	<b>0.873</b>	0.475	0.579
PEU2	0.640	0.499	0.523	<b>0.926</b>	0.494	0.635
PEU3	0.676	0.467	0.520	<b>0.903</b>	0.432	0.605
PEU4	0.609	0.478	0.552	<b>0.904</b>	0.474	0.557
PEU5	0.635	0.567	0.552	<b>0.893</b>	0.551	0.564
PU1	0.451	0.457	0.491	0.535	0.453	<b>0.905</b>
PU2	0.530	0.496	0.519	0.575	0.474	<b>0.936</b>
PU3	0.601	0.483	0.590	0.662	0.490	<b>0.947</b>
PU4	0.639	0.501	0.575	0.644	0.482	<b>0.925</b>
SAT1	0.467	0.633	0.658	0.467	<b>0.940</b>	0.472
SAT2	0.521	0.655	0.682	0.553	<b>0.951</b>	0.507
SAT3	0.500	0.663	0.655	0.496	<b>0.951</b>	0.487
SAT4	0.468	0.691	0.640	0.509	<b>0.924</b>	0.462

Note: Cross loadings should be lower by at least 0.1 (Hair, Hult, Ringle & Sarstedt, 2013)

Finally, discriminant validity of the instrument was verified by looking at the square root of AVE as recommended by Fornell and Larcker (1981). Discriminant validity of the measures is the degree to which items differentiate among constructs or measure distinct concepts. The discriminant validity is confirmed by the results shown in Table 4: as mentioned by Chou (2010), the square root of the AVE for each construct is greater than the level of correlations involving the construct. All inter-construct correlations are shown as elements off the diagonal of the matrix in Table 4, while the square roots of AVE are shown in the diagonal elements. All the square roots of AVE should be larger than off-diagonal elements in the same row and column (Sanchez-Franco & Roldan, 2005). In total, the measurement model demonstrated adequate convergent validity and discriminant validity.

Table 4. Discriminant Validity of Constructs

	1	2	3	4	5	6
<b>1. Attitude</b>	<b>0.907</b>					
<b>2. Confirmation</b>	0.535	<b>0.896</b>				
<b>3. E-HRM Continuance Intention</b>	0.625	0.563	<b>0.918</b>			
<b>4. Perceived Ease of Use</b>	0.692	0.546	0.594	<b>0.900</b>		
<b>5. Satisfaction</b>	0.520	0.702	0.700	0.538	<b>0.942</b>	
<b>6. Perceived Usefulness</b>	0.604	0.522	0.588	0.654	0.512	<b>0.928</b>

Note: The diagonal values are square root of the average variance extracted while the off-diagonals are correlations.

### 1.1. Structural Model

With an adequate measurement model the proposed hypotheses were tested with PLS. Our findings are shown in Figure 3.

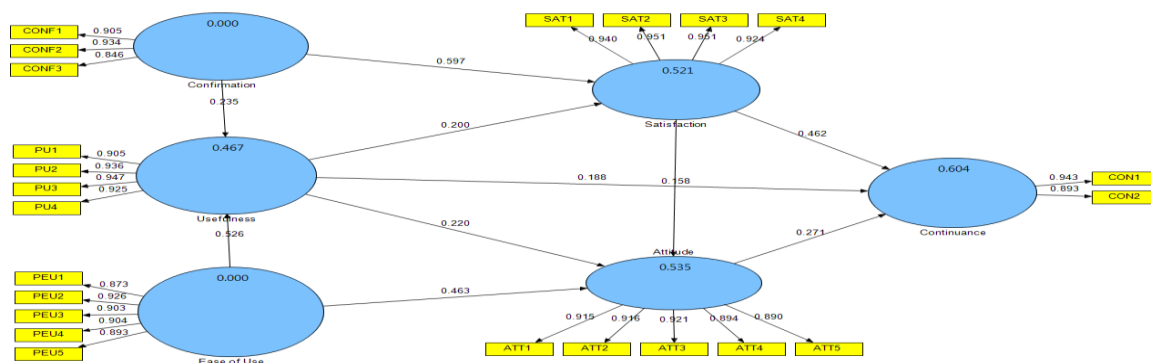


Figure 3. Results of Structural Model.

## 5. Discussions

This study contributes to an improved understanding of the factors that influence E-HRM users' continuance intention of using E-HRM.

### 5.1. Perceived Ease of Use and Confirmation on Perceived Usefulness

Research findings of this study confirm that perceived ease of use and confirmation were positively related to perceived usefulness. Hypotheses 1 and 6 are thus accepted. The value of perceived ease of use as a predictor of perceived usefulness in this context is shown in its ability to enhance perceived value by the E-HRM users. Users tend to perform a task on a system that is easy to access and use, rather than on a system that demands great mental effort to operate. Confirmation successfully predicts perceived usefulness. Users will have high initial usefulness perceptions of a new IS because they are very sure what to expect from its use.

### 5.2. Perceived Usefulness and Confirmation on Satisfaction

Both perceived usefulness and confirmation have been found to play significant positive influence on satisfaction as expected. Thus, Hypotheses 3 and 7 are accepted. The more useful an E-HRM is, the more satisfactory it is. Confirmation positively affects satisfaction, which indicates that users' satisfaction with E-HRM typically comes from adjustments of their expectations.

### 5.3. Perceived Ease of Use, Perceived Usefulness, and Satisfaction on Attitude

Hypotheses 2, 4, and 8 were also supported in this study. We could thus induce that perceived ease of use, perceived usefulness, and satisfaction seems to remain as a critical determinant of attitude towards E-HRM. Specifically, once a user perceives an E-HRM as easy to use, he or she will develop a positive attitude towards the use of E-HRM. Thus, perceived ease of use affects the attitude towards using E-HRM. The result also indicated that E-HRM users are more likely to have a favourable attitude toward using HR technology if they perceived that using this technology is not complicated or they perceived it as a useful tool. With regards to satisfaction and attitude, the finding indicates that the more satisfied users are when they use E-HRM technology; the more likely they will have a favourable attitude towards them.

### 5.4. Perceived Usefulness, Satisfaction, and Attitude on E-HRM continuance usage intention

With regard to the effects of perceived usefulness, satisfaction, and attitude on E-HRM continuance usage intention, analysis showed that all three constructs are positively related to E-HRM continuance usage intention. Thus, Hypotheses 5, 9, and 10 are supported. For the relationship between perceived usefulness and E-HRM continuance usage intention, we could thus induce that perceived usefulness of E-HRM seems to remain as a critical determinant of E-HRM user continuance usage intention. We could infer that E-HRM users are more

rational decision makers, when give the option to continue with E-HRM usage. E-HRM users are looking for positive benefit to reinforce their past and existing adoption decision to use this technology and estimating the practical value to continue. This is captures by the perceived usefulness belief. Besides, this study found that users' satisfaction significantly and positively influence continuance usage intention. This result implies that investment in user satisfaction benefits the whole organizations in the form of increased long-term usage intention. Lastly, attitude is found to have a significantly effect on intention to continue to use E-HRM, which is consistent with other studies that examine the relationship between attitude and IS continuance usage intention (Chiang, 2013; Ho, 2010).

## 6. Conclusion

This study contributes and builds on the existing studies on technology acceptance by presenting the Malaysian perspective and followed the recommendations from previous studies that have highlighted the need to validate the TCT with different contexts and cultures to enhance its generalizability. Present study concludes that end users attitude, perceived usefulness and satisfaction determines the continuance usage of the E-HRM system. Although there are some limitations, it is hoped that the first step taken in studying E-HRM continuance usage intention is significant for further justification.

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# Conceptualizing ‘Ba’ In Knowledge Creation among Medical Researchers in the Malaysian Higher Education Institution: A Pilot Study

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## Abstract

The importance of knowledge-based product has risen in this competitive world. As many sectors are moving towards it, higher education institutions (HEIs) are also aspiring to become one. As competitions become increasingly sophisticated, academicians need to make themselves firm in terms of performing their roles as knowledge providers beyond the existing educational frameworks. In spite of providing theoretical and practical teachings, they should also contribute in R&D (research and development). Knowledge is power. By this means, instead of relying on their existing knowledge and expertise, they need to continually externalize their knowledge for the benefit of generating new knowledge. However, it needs a platform as to make the knowledge available to everyone. Based on the Japanese concept of ‘ba’ on knowledge creation, this paper explores the interaction pattern among academicians (medical researchers). As qualitative method has been considered for this pilot study, semi structured interview was applied as to gather the informant’s opinions and insights regarding to knowledge creation activities in one of the HEIs in Malaysia.

*Keywords:* ‘ba’; knowledge creation; Malaysia; Malaysian Higher Education Institution; Malaysian medical researchers

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## 1. Introduction

Malaysia has industrialized rapidly over the past few decades. As seen nowadays, there are growing numbers of knowledge based industries in the country. Yi and Jayasingam (2012) stated that knowledge-based industries in Malaysia are including those of the public institutions and financial institutions. With the concern of the Malaysian government to bring the nation towards a knowledge-based country which has long started since the 90s, it has become the platform to improve the nation’s knowledge economy. Besides, as competition has become so important in today’s world, the consideration of R&D should be put at the highest priority. Ramlee and Abu (2004) emphasized that by putting it into highest priority, it can become a benchmark for a nation’s competitiveness status.

Alike other countries, HEIs are also contributors to the nation’s development and wealth. To become a hub for creating a knowledge-based society, HEIs are not only responsible for producing skillful human capital, but also to get involved in R&D. Roy Singh (1999) has outlined three main function of HEIs which are to act as an intellectual institution of education towards knowledge generation, and to promote change and development, and as well as to become a center for innovation through R&D. With the importance of R&D, together with the rise of Science and Technology, it gives opportunities for researchers to explore sectors such as medical, microelectronics, ICT, aerospace and so forth. Hence, HEI has to develop a collaborative effort among academicians so as to benefit the industry especially to contribute in the R&D.

Researchers possess tacit knowledge comprising of their experience, expertise, and ideas. But they cannot fully rely on those existing ones. This is because; the ability to create knowledge is always needed. Mitchell and Boyle (2010) strengthened the fact that, the ability of an organization to become robust and dynamic is based on its ability to continually create new knowledge. However, there must be an enabling environment that gives rise to the platform or as an enabling condition for knowledge creation to happen (Abdulai, 2004). Due to the fact

that academic institutions are also competing with each other, to explore this topic, the research questions include: i). How is the nature of knowledge creation activities take place among medical researcher (academicians)? ii). How the driving forces affect researchers' knowledge creation activities? iii). How the academicians/researchers interpret the concept of 'ba' being established within their knowledge creation activities? Meanwhile, the research objectives are to:

- i). Explore the knowledge creation activities of medical researchers in the Malaysian HEI
- ii). Explore the driving forces for knowledge creation activities among the researchers
- iii). Explore the interpretation of medical researchers on the establishment of 'ba' in the creation of knowledge

## 2. Literature Review

The concept of 'ba', which roughly can be described as 'place', was initially introduced by Japanese philosopher, Kitaro Nishida. In 1945, he was regarded as a philosopher in Japanese modern era. He came out with a book entitled "An Inquiry into the Good" written in Japanese language which has been published in 1911 where he mentioned about 'basho' or known well as 'ba'. As this book is about his philosophical view on self-realization, he highlighted that 'ba' is a place where individual gain self-realization towards life experience (Kazashi, 2011). This concept is then further developed by Shimizu. According to Senoo, Magnier-Watanabe and Salmador (2007), 'ba' is a designated time and place where interaction between individuals takes place. Later in 1995, Nonaka and Konno derived the concept of 'ba' and embedded it in the context of knowledge creation.

Devinney, Midley, and Soo (2005) stated that the ability for organization to create new knowledge may guarantee strive and longevity in today's economy. This scenario has affected the way organizations look at the reasons why they exist in the industry. Tacit knowledge is owned by individuals and contained experience of life, education, and other knowledge sharing experiences. Pribadi (2010) suggested that by making them available in a form of explicit knowledge, it generates new knowledge. Furthermore, it is potentially useful only when it has been understood, manipulated, and generated (Helm, Millage, and Clark, 2010). However, knowledge needs a space or 'ba' in order to be created. Nonaka and Toyama (2002) believed that 'ba' emerges within individuals that involve existential place where they can share their contexts and through interactions, they create a new meaning. Bejinaru (2010) further suggested that 'ba' should include people, time, and place which allow knowledge and relationship emergence. Besides, the existence of individual possessing tacit knowledge to get involved in interactions throughout the knowledge creation activities will produce new ideas (Bratianu and Orzea, 2010). Meanwhile Nguyen (2011) posited that the transition of tacit knowledge to explicit knowledge requires interaction and further it will create a space for knowledge creation to occur.

The model that relates to knowledge creation and which 'ba' lies within it is known as SECI model. This model has been developed by Nonaka and Takeuchi, in which they believed that in order for knowledge creation to happen, Socialization-Externalization-Combination-Internalization is important for the cyclical conversion of tacit knowledge to explicit knowledge and vice versa. Meanwhile, the four types of 'ba' associated within the model are originating 'ba', interacting 'ba', virtual 'ba' or systemizing 'ba', and exercising 'ba' (Nonaka and Takeuchi, 1995).

Socialization (tacit-tacit) is a process of sharing experiences that creates tacit knowledge comprising of cognitive skills and technical skills. The type of 'ba' associated in this phase is known as originating 'ba'. This phase is considered as the basic platform to promote the socialization phase between individuals in the organization (Nonaka, Toyama, and Konno, 2000). Kaiser and Fodinal (2010) mentioned that this is where individual share feelings, emotions, experiences, and mental model. The basic emotion, such as care, love, and commitment to communicate (between individual) is the important aspect to nurture the conversion of tacit knowledge. A study by Balestrin, Vargas, and Fayard (2008) towards a small firm in South Brazil showed that

social interactions are proved to be the foundation for generating new ideas that thus useful for sustainability in the long-term period. Meanwhile, a study done by Nguyen (2011) in audit firms further proved that socialization is useful in order to gain experience and technical skills among them.

Externalization (tacit-explicit) on the other hand, involves individuals from a larger group of society in the organization. At this phase, it is associated with interacting 'ba'. The conversion of knowledge between individuals is triggered with the existence of dialogue and transformed into comprehensible form which can be understood by others (Ichijo and Nonaka, 2007; Nonaka and Konno, 1998). As a consequence to this, it supports creativity and new explicit concept of the knowledge is created (Bratianu and Orzea, 2010). Besides, through linguistic expression, the meaning of the knowledge is also included (Virtaren, 2011). This is parallel to Nonaka and Konno's (1998) statement, whereby, it is more constructed that the originating 'ba' as individuals with specific knowledge will mix together with others for the completion of project or task. In addition, Accorsi and Costa (2008) stated that it involves a real time and space where individuals convert their knowledge into terms and concept.

Combination (explicit-explicit) corresponds with virtual 'ba' or systemizing 'ba'. According to Nonaka and Konno (1998), it involves different bodies of knowledge internally and externally. It opens an opportunity for organization to foster knowledge creation. Braun (2004) suggested that technology embedded together can enhance the knowledge contribution through online interaction and networking for the purpose of knowledge creation. It is a place where interaction is supported by collaborative environment using IT, online networks, portals, and other available IT-based tools that helps to integrate tacit and explicit knowledge.

Internalization (explicit-tacit) on the other hand corresponds with exercising 'ba'. Nonaka and Konno (1998) stressed out that internalization of knowledge is continuously enhanced by the use of formal knowledge. Ichijo and Nonaka (2007) assumed that individuals will have a deeper understanding of the newly created organizational knowledge. This phase reflects back to an individual within the organization. Thus, it deals with the absorptive capacity of individuals to absorb knowledge. SECI model is a cyclic process. Hence, it will continuously happen in an organization whereby the newly absorb knowledge might be shared again in socialization phase (Goh, 2006).

### 3. Methodological Approach

The aim of this research is to explore the academicians, specifically medical researchers, about their insights regarding to the matter of their interactions for expressing their knowledge, experiences, and ideas in making them available to others within their community. Punch (2005) denoted that social reality is not easy to be studied and there is a need to conduct a research to discover different viewpoints of a reality. Realizing that humans' perceptions and insights are different from one another, this study uses a qualitative approach, whereas semi structured interview is used to gather information from the medical researchers. To conduct this pilot study, the researcher was guided by the interview guidelines which were constructed based on the research framework shown in Figure 1, adapted from Nonaka and Takeuchi's knowledge creation dynamics, SECI model (Nonaka and Takeuchi, 1995).



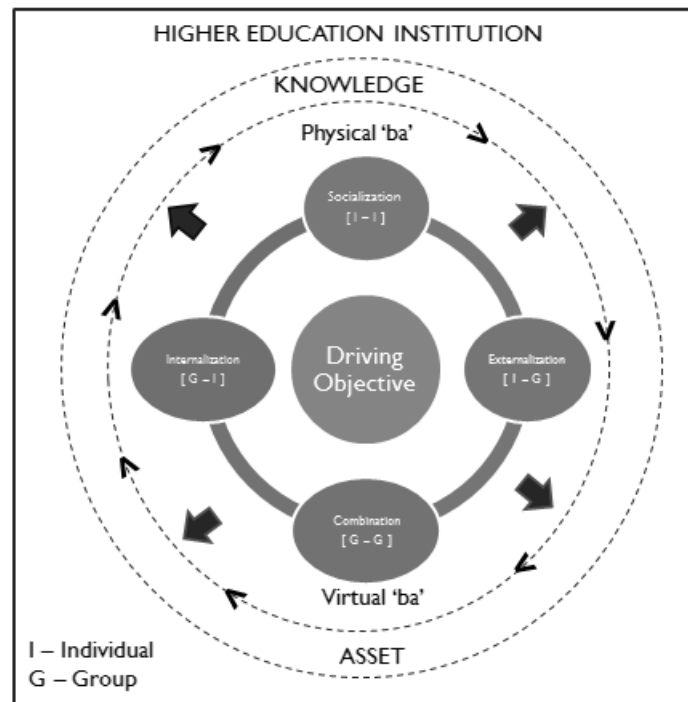


Figure 1: 'Ba' and Knowledge Creation Research Framework

## 4. Result and Discussion

### 4.1. Driving Objective

Ichijo and Nonaka (2007) stated that by knowing and understanding the purpose of why the organization exists, it will give better direction for knowledge creation activities to occur. Based on the pilot study, external forces have driven the knowledge creation activities to happen in the institutions. In order to compete, it is necessary for them to always be updated and be at par with the other institutions in the world. Due to that, all academicians in this institution are encouraged to get involved in research. From the interview, the informant stated and explained that:

*"...we need to be at par with other country in the world....you need to be updated all the time, or otherwise we will end up being like a cocoon".*

From the statement, Lin and Lo's (2010) statement whereby they believed that R&D is important for competition purpose, especially in this uncertain and dynamic competitive environment. To reflect, in the context of this study, with the rapid changes in Science and Technology, they really need to explore more. Besides, according to the informant, with the fact that diseases can spread faster than a human can think of, they as well need to act fast by doing research to ensure better health quality for the patient affected.

### 4.2. Socialization

Allee (2003) mentioned that knowledge is a conversation and is a continual process, emerging in a shared space that arises between individuals. Through conversation, it facilitates communications among members. Through this study, it shows that the researchers performs an active interaction and in a continuous motion which was claimed as to be almost every day by the informant. This is because of their work nature require them to meet every day. In this phase, their interaction comprises of both formal and informal interaction. In term of formal communication, a physical space is being considered as to discuss on issue pertaining to the patient. Meanwhile,

social media such as 'whatsapp', 'wechat', email and phone call are considered as the informal communication by the informant. From this, researchers do not rely only on face to face as a way of interaction but also some of the medium aforementioned. Considering some other medium as their method of communication enable them to share their knowledge, experience, or ideas rapidly.

#### 4.3. Externalization

According to the informant, this institution conducts a meeting on a monthly basis. Through this meeting, it allows an active of two ways communication among all researchers. At this point, they will discuss on critical issues or cases for problem solving purposes, in which cannot be solved only through a simple interaction as happened in socialization. Ichijo and Nonaka (2007) denoted that knowledge is socially created through the synthesis of different views of various individuals. At this phase, all researchers from different background of expertise will gather and they will discuss thoroughly on the matter arose by giving comments and suggestions. From the interview, the informant mentioned that:

*"I could not work alone...I need input in order for me to come out with accurate diagnosis from the slide sample".*

Besides, they actively get involved in activities such as seminar, workshops, and symposiums also important. Besides giving them input, they can voice out their opinion on medical issues that currently on the rise. This can be proven where the informant stated that:

*"...we conduct seminar and we do have like workshop update".*

#### 4.4. Combination

Teerajetgul and Charoenngam (2006) mentioned that the use of is useful to facilitate knowledge creation and making it accessible for future use. From this pilot study, instead of face to face interaction, they combine their knowledge from other sources such as journals, e-book, digitized case studies in CD forms. Besides, reports documented based on previous meetings done will also be used as to add up their existing knowledge. Through this study, they not only gather knowledge internally, but also externally. According to the informant, they do communicate with international medical practitioner through virtual communication. From this, the informant stated that:

*".....we go to their website and we do discussion on certain cases where others also contribute".*

#### 4.5 Internalization

Ramirez, Morales, and Rojas (2011) mentioned that the dynamics of knowledge conversion of tacit to explicit and vice versa may be able to affect performance and learning. As they perform an active communication between them, this has brought to an active generation of knowledge. From this study, it was found that through interaction with other researchers, it contributes to the enrichment of their knowledge. From the interview, the informant mentioned that:

*".....we learn in two ways communication and we learn from each other during the meeting".*

From that statement, they will be theoretically acknowledged with the issue that happening around them such as new disease or illness that further will bring them towards a more in-depth discussion regarding to it.

#### 4.6 Knowledge Assets

Based on this study, the outcome of knowledge creation has influenced the institution's performance. According to Ichijo and Nonaka (2007), knowledge asset is not only about possession of knowledge. It is also closely related to the vision of the institution. According to the informant, through the knowledge created, it would be able to assist the organization to move align with the competition they get from other institutions. Besides, the knowledge is also able to bring the institution to achieve the benchmark that has been set that would make them stand equally with other established institutions. The informant stated that:

“.....pathologist in Malaysia is equivalent with pathologist in the UK or any other country”.

Other than that, new knowledge may benefit the community. It can be proven from the statement by the informant, which:

“.....bring into new knowledge that will enhance the awareness of the public about the cancer and how to prevent it”.

#### 4.7. Conclusion

From the pilot study, it is revealed 'ba' is important as a base for knowledge conversion. This is due to the fact that knowledge that resides in an individual's mind cannot be externalized without the presence of communication. This study also discovered that socialization is really important as to ensure continuous interaction between researchers. Besides, the creation of knowledge can actively happen in the externalization and combination phase. Whilst there are many advanced technology available nowadays, physical interaction (face to face) is still found to be effective in conveying their knowledge. Meanwhile, virtual interaction also happens, especially when communicating with other medical practitioners from other part of the globe.

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# The Effect of Organizational Learning and Job Satisfaction on Organizational Commitment: Its Implication toward Lecturers Performance

(Case Study at Economics Faculty of Private University in Bandung City)

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## Abstract

The aim of this research was to explore the effect of organizational learning and job satisfaction on organizational commitment and its implication toward lecturers performance. The sample of this verificative research are lecturers from economics faculty at private university in Bandung city and 83 respondent participate in this study. In this research we use cluster random sampling technique and use path analysis to analyzing The result of this research indicate that there is a positive effect of organizational learning and job satisfaction through organizational commitment to lecturers performance.

Keywords: Organizational Learning, Job Satisfaction, Organizational Commitment, Lecturer Performance.

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## 1. Introduction

Organizational learning has become one of the most important need for organization at this time. Any organization can not ignore the learning process to be able to survive (Montes, Moreno dan Morales, 2005; Probst dan Buchel, 1997). Maintain long-term viability of the organization, the face of increasingly stringent and achieve optimal performance depends on the capacity of the organization to adapt to the constantly changing environment (Patnaik & Berinha., 2008; Montes et al., 2005).

Several previous studies revealed that organizational learning in practice has led to the growth of the interaction between learning organizational culture and organizational performance (Egan, Yang, dan Bartlett, 2004). Given the importance of organizational learning for the organization, but still relatively little or almost no studies have attempted to investigate the influence of organizational learning on job satisfaction, organizational commitment and performance, especially in the Private University. For the research on organizational learning lecturer at the University needs to be done.

Organizational learning refers to the organizational and managerial characteristics that facilitate organizational learning process (Goh dan Richards, 1997). Universities should strive to produce, and transferring knowledge as constructive applications in the relevant field. Organizational learning is considered as a place where members continue to develop their capacity to create the results you want, develop and maintain a new mindset and aspirations freed to create optimal performance (Pedler et al., 1991; Senge, 1990).

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Assessment of faculty performance by implementing three dharma can be measured through the work of education and teaching, research and community service as well as supporting elements lecturer profession as contained in PERMENPAN (ministerial regulations of empowerment and the state apparatus) and Reform No. 17 in 2013. The success of faculty in teaching and learning is determined by the performance of lecturers as educators, if the lecturer has a good performance, the results of the learning will go well. Phenomena that occur in the field of education and teaching: teaching faculty are not in accordance with a predetermined syllabus, teaching methods still unidirectional, lecturer difficult to find when students will perform guidance.

Efforts are made of Higher Education and Kopertis region IV, to encourage the faculty to conduct research and community service one of them with research grants and grant programs community service. Based on the summary of data obtained from research faculty Kopertis Region IV West Java and Banten, tenured faculty economics faculty of private universities in Bandung during the years 2010 to 2013 is only about 3 % of lecturer at the Faculty of Economics who submit research grant. Likewise in the field of community service is only about 1% during the years 2010 to 2013 that apply for grants community service.

Good performance is influenced by job satisfaction and organizational commitment (Jonathan and Andrew, 2010). The problem faced by many universities, especially private universities are still a lot of professors who conduct activities outside the campus several lecturers choose to have a schedule of teaching at several universities . Lecturer at university are required to have optimum performance. However, based on information obtained from several professors at private universities, the salary received by the lecturer is still not enough to meet the needs . Azman Ismail and Ahmad Zaidi (2011 ) revealed that the amount of salary received by the employee can be influential on the level of performance.

Luthans (2011 ) revealed that the level of performance of the employee is influenced by the control of the leadership , and good cooperation with colleagues. Phenomena that occur in private universities , as dictated by the personnel department. Leaders feel free to give a warning if there are lecturers higher education levels of leadership. Thus, the lecturer left when doing indiscipline among others absent from present obligations and duties.

Organizational learning positive and significant effect on the performance (Kunartinah, 2010). The phenomenon that occurs in some private universities some professors do not know the vision of the faculty or program of study, courses and university leaders rarely involve faculty in meeting activities, there is still a gap of communication between leaders and lecturers, and among the lecturers. In fact, the success of college performance is the achievement of the vision and mission of the university through the implementation of the tri dharma of college.

This study aims to analyze and generate the study of: 1). Organizational learning, job satisfaction, organizational commitment, and performance Lecturer at the Faculty of Economics of Private University in Bandung. 2). The influence of organizational learning and job satisfaction on organizational commitment Lecturer at the Faculty of Economics of Private University in Bandung partially and simultaneously. 3). The influence of organizational learning and job satisfaction on the performance of the Faculty of Economics Lecturer at Private University in Bandung, either directly or indirectly through organizational commitment.

## 2. Literature Review

Organizational learning is the process of developing new knowledge that change the behavior of the organization to improve the performance of current and future. The most popular definition of organizational learning can be categorized into the following three perspectives: First , adaptive learning perspective, which focuses on the individual as an agent of learning (Heneman et al ,1989; Argris and Schon, 1978) . Second, the development of knowledge-based perspective (Duncan and Weiss, 1979) and experience the effects of perspective, which focuses on the organization wants to change through better knowledge and understanding

(Stata, 1989). Third, the assumption of shared perspective, which focuses on shared mental model changes associated with operational policies, norms and performance criteria (Shrivastava, 1983; Dixon, 2000).

Learning is regarded as a potential organizational behavior change as a result of obtaining new shared mental models, change norms, rules, processes, structure, or coordinative behavior. Learning organization is an organization that continues to expand its capacity to create the future. For such organizations, it is not enough just to survive (Senge, 1990). Peter Senge (2004) states that the characteristics of a learning organization is the five disciplines that make up a successful organizational structure, consisting of: personal mastery, complex mental models, system thinking, team learning and building a shared vision.

The effectiveness of an organization depends on the capacity of organizations to acquire, share, use, and store valuable knowledge (Mc. Shane and Von Glinow, 2010: 11). Learning organizations can also be realized from members of the organization who want to learn. Organizational learning is also a process of development of new knowledge that change the behavior of the organization to improve the performance of current and future (B. Hiriyapa, 2009:27). Learning organizations encourage learning among employees, to promote the exchange of information between employees and produce employees who have more expertise in formulating concepts based on what is learned by the employees, so that they can immediately solve the problems according to their expertise (Gareth Jones, 2010:363).

Job satisfaction is basically something individual . Each individual has a different level of satisfaction varies according to the value system that applies to him . The higher the perceived assessment of the activity in accordance with the desires of the individual , the higher the satisfaction of the activity (Veithzal Rivai, 2009: 856) . Employees who are satisfied with the attitude shown to work harder and provide better service , (Yoon and Suh, 2003; Yeh,2013). Some early research proves that job satisfaction has a positive influence on organizational commitment. (Silvestro & Cross, 2000; Lu et al , 2012; Yeh, 2013) .

Experts agree that job satisfaction is an attitude and a general feeling of a worker on the job. From some sense it means that the level of job satisfaction is the result of an individual 's perception of his work and the various special attitude held by an employee to work, adjustment, and the extent to which there is conformity between them as individuals and organizations (Robbins, 2009: 65; Luthans, 2011: 142; Noe,2010:477; Ivancevich, 2011:77). Job satisfaction is the result of the interpretation and the emotional state of an employee to work if positive and expectations are met then one employee was satisfied, but when expectations are not met then it will appear feelings (Jerald, 2011:220; Mc . Shane, 2010:108 ). Factors that lead to job satisfaction by Luthans (2011: 142-143) are: Work it self, Pay, Promotions, Supervision, coworkers.

Organizational commitment has an important role for the growth of an organization. commitment is a function of personal characteristics and situational functions related to working conditions. Meyer and Allen (1991) provide empirical evidence that organizational commitment is a multidimensional concept that provides a comprehensive insight into the relationship between the employee and job-related behaviors. Employees who have a commitment to the organization believes and accepts the organization's goals and values, are willing to remain with the organization and are willing to strive and work for the betterment of the organization (Mowaday, Porter & Steers, 1979; Cater and Zabka, 2009).

Organizational commitment is a strong belief in and acceptance of the goals set organization, willingness in the form of beliefs become part of the organization , and the desire to be part of an organization (Noe, Hollenbeck, Gerhart and Wright, 2010: 475; Ivancevich, 2011:198 It can be concluded that the importance of organizations to create employee loyalty to the organization. Where such loyalty is an attitude that can grow and disappear from the behavior or individuals. If the employee gives loyalty to the organization, the employee will be more willing to give his best (Luthans, 2011:147) .

Organizational commitment can make an individual loyal and reduce the desire to get out of the organization, besides that individuals tend to show high involvement manifested in the form of attitudes and behavior in carrying out its functions in the organization. Organizational commitment by Meyer and Allen's (2001) divided into three components: affective commitment, continuance commitment, Normative Commitment. A similar opinion was delivered by Robbins and Judge (2009:113)

The success of an organization is influenced by the performance (job performance) employees. Performance is defined as the effectiveness of the activities carried out by employees of the organization (Motowidlo, 1994; Tahir, 2012). Performance is basically what was done or not done by the employees (Mathis and Jackson, 2010:378). Individual performance shows how much the ability individuals to contribute to the achievement of organizational objectives (John Bernardin, 2010 : 222). The contributions made, shown on the ability of individuals to exercise their functions both in quantity and quality achieved in units of a certain period in carrying out their duties in accordance with the responsibilities assigned to him (Raymond J. Stone, 2008: 36; Ivancevich, 2011:182). Assessment of faculty performance in high perguruan based Tri Dharma College, which implement education and teaching, conduct research and perform community service.

- (H1). Organizational learning, job satisfaction, organizational commitment, and performance Lecturer at the Faculty of Economics of Private University in Bandung is still low.
- (H2). There is a positive effect of organizational learning and job satisfaction on organizational commitment Lecturer at the Faculty of Economics of Private University in Bandung partially and simultaneously.
- (H3). There is a positive effect of organizational learning and job satisfaction on the performance Lecturer at the Faculty of Economics of Private University in Bandung, either directly or indirectly through organizational commitment.

### 3. Research Method

The method used to analyze the data in this research is Path Analysis. Path analysis was conducted to analyze the causal relationship with the purpose of separating the effects of direct and indirect effect causes a variable to variable result. Path analysis chosen for this research is to measure the magnitude of the effect of exogenous variables on the endogenous variables, both influence directly and indirectly influence through relationships with other exogenous variables. Primary data were collected through a questionnaire survey distributed to tenured faculty. Organizational learning measured using 12 items developed by Peter Senge (2004), job satisfaction was measured using 12 items developed by Luthans (2011), organizational commitment was measured using 12 items from Robbins and Judge (2009) and faculty performance is measured by using 12 items developed by Bernardin (2011). The respondents are comprised of tenured faculty were asked to respond on a scale ranging from strongly agree (5) to strongly disagree (1). From this analysis, it was identified level of reliability between 0.825 to 0.874, exceeding the recommended 0.7 (Suharsimi Arikunto, 2010). Thus, the instrument used in this study showed a good level of reliability. In the questionnaire contained demographic information such respondent, gender, duration of work, and the number of teaching hours. Population as much as 454 full-time lecturers and taken a sample of 83 people by using the Slovin's formula. Research data processing by using SPSS software version 19.

### 4. Discussion And Analysis

The results of the analysis of the respondent profile data obtained by the author is male respondents 44 people (53%), 38 women (47%), work period between 6-10 years (44%), long taught in one week 12-15 Hours (42.2%). Descriptive analysis of each variable revealed that: Organizational Learning tenured faculty measured by Senge (2004) are in either category lowest item is completion of the tasks of the leadership and vision of the institution became a lecturer working guidelines. Job satisfaction in the category of lecturers are sufficient, the lowest item is satisfaction with salary and supervision of leadership. The results are consistent with that proposed by Luthans (2011:142). Lecturer Organizational commitment was measured by Robbins & Judge (2009) located at both the lowest category is an ongoing commitment. Performance is measured through a



Lecturer at tri dharma college, the performance of education and teaching are in the good category, the lower is the performance of research and community service.

**Table 1. Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	25.703	5.179		4.963	.000
	Organizational Learning (OL)	.478	.100	.470	4.787	.000
	Job Satisfaction (JS)	.209	.085	.241	2.455	.016

a. Dependent Variable: Organizational Commitment (OC)

According to table 1 above, organizational learning has positive influence on Organizational Commitment of 0.470 with t-count equal to 4.787 and 0.000 significance value smaller than the significance level was set at 0.05. The results are consistent with research Talat and Isfak (2013). Job satisfaction has positive influence on Organizational Commitment with the value of 0.241 lines, with t-count equal to 2.455 and 0.000 significance value smaller than the significance level was set at 0.05. The results are consistent with what is proposed by Sunday Popoola (2009).

**Table 2**  
**The Effect of Organizational Learning and Job Satisfaction**  
**simultaneously affect the Organizational Commitment**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.615 <sup>a</sup>	.379	.363	2.19543	.379	24.376	2	80	.000

a. Predictors: (Constant), Organizational Learning (OL), Job Satisfaction (JS), b. Dependent Variable: Organization Commitment (OC)

According to table 2 above, organizational Learning and Job Satisfaction simultaneous effect on Organizational Commitment of 0.379 ( 37.9 % ). Based on the research results of Organizational Learning and Job Satisfaction simultaneously affect the Organizational Commitment Lecturer Faculty of Economics of Private University in Bandung .Organizational Learning Lecturer positive effect on the performance of 0.198 with a t-test of 2,050 and 0,044 significance value smaller than the significance level was set at 0.05. The results are consistent with the results of research Wageeh and Belal (2012).

**Table 3**  
**Organizational Learning, Job Satisfaction and Organizational Commitment**  
**simultaneously affect the lecturers performance**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.070	4.642		1.739	.086
	Organizational Learning (OL)	.182	.089	.198	2.050	.044
	Job Satisfaction (JS)	.215	.069	.274	3.102	.003
	Organizational Commitment (OC)	.381	.088	.422	4.350	.000

**Table 3**  
**Organizational Learning, Job Satisfaction and Organizational Commitment**  
**simultaneously affect the lecturers performance**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
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	Organizational Learning (OL)	.182	.089	.198	2.050	.044
	Job Satisfaction (JS)	.215	.069	.274	3.102	.003
	Organizational Commitment (OC)	.381	.088	.422	4.350	.000

a. Dependent Variable: Lecture Performance (LP)

According to table 3 above, job satisfaction has positive influence on performance Lecturer at 0.274, t-test with a significance value 4.350 and 0.000, which is smaller than the significance level was set at 0.05. The results are consistent with the results of research conducted Muhammad Tahir (2012). Organizational Commitment Lecturer positive effect on performance, amounting to 0.422, t-test with a significance value 3.102 and 0.003 which is smaller than the significance level was set at 0.05 . The results are consistent with the research Nele and Hans (2009), and studies of Abu Bakar (2013). Organizational learning and job satisfaction has positive influence on the performance of lecturers through organizational commitment to the total effect of 53.9 %, a significance value of 0.000 which is smaller than the significance level was set at 0.05.

## 5. Conclusions And Suggestions

Organizational learning, job satisfaction, organizational commitment and performance of professors at private universities in Bandung showed good results, although there are some shortcomings, especially in lecturers job satisfaction in terms of payroll, because lecturers assess and feel that salary is perceived not in accordance with the needs of everyday life. Similarly, in terms of supervision by the leadership is still not optimal. With the low income received during this and the lack of supervision of leadership led to the performance of lecturers to be low, especially in the performance of duties and responsibilities in the field of research and community service. Organizational learning and job satisfaction effect on organizational commitment lecturer in Private University in Bandung. Organizational learning and job satisfaction have a significant effect on the performance of lecturers through organizational commitment lecturer in Private University in Bandung. Influence is greatest job satisfaction to be able to increase organizational commitment lecturers so as to improve the performance of lecturers .

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# Content Management System (CMS) as Informative Platform for Young Entrepreneurs for Ministry of Youth and Sport: A Conceptual Framework

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## Abstract

While most issues on entrepreneurship has been discussed in education in Malaysia regardless secondary to the tertiary level of education being expose to the variety of activities related. Entrepreneurship in education encourage youth to prepare and the responsible, enterprising individuals who become entrepreneurial thinkers and contribute to economic development and sustainable communities. However, to start up new business or enterprise needed guidance and references to enable youth to have support, training, and resources. Against this concern, this study seeks to solve the problem which is a) variety resources need to refer to start up business b) guide and references to case studies and c) agencies related in Malaysia that enable to support and training. The study is a quantitative method use a survey approach, will distribute 1000 questionnaires to youth in Malaysia divided into five zones. The findings of this study will first encounter a step towards establishing a framework for developing Content Management System (CMS) as a single informative platform for Ministry of Youth and Sports, Malaysia.

*Keywords:* Young; Entrepreneur; Content Management System; Malaysia.

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## 1. Introduction

The Ministry of Youth and Sports establish on 15 May 1964 in concurrence with the National Youth Day celebration in the same year. In 1972, the Culture Division relocates under Ministry of Youth and Sports, which bring the change of its name to the Ministry of Culture, Youth and Sports. Since then, the Ministry of Culture, Youth and Sports revert to its original name, known as the Ministry of Youth and Sports. Ministry of Youth and Sports (MYS) was given the authorization to put into practice the policies of the Malaysian government, particularly in the areas of Youth and Sports development. However, youth and sports cover in many aspects that can comprise sports development, social issues (alcohol and drugs), education, culture and arts, leadership, entrepreneurship and others. In Malaysia, citizenship ages from 18 to 40 are categorized as youth.

In National Youth Consultative Council (NYCC) 2013-2014, in facility section there is a recommendation for the youth in encouraging them to involve in entrepreneurship. In addition, they should be exposed to this subject area at least at secondary level of education and option at university level. This initiative give opportunities to the youth to expose and explore for new business, take new challenge, innovative and productive. However, Malaysian youth are facing few problems due to these issues such as a) variety resources scattered need to refer to start up business b) no standard guide and references to case studies and c) agencies related in Malaysia that enable to support and training for youth entrepreneurs. Over the years, youth have continued to assume increasingly prominent roles in the business world. With the changing of the trend in the business and the increasing importance of the services industry, more youth entrepreneurs are in the commercial businesses within the marketplace. Recognizing their potential contributions, the government decided to increase youth participation in business and entrepreneurship. One of the difficulties that these entrepreneurs are experiencing is that there are no proper information services that can support and provide them with relevant information

pertaining to their business. For this reason, a guide to information resources at the early stage is deemed significant and timely in order to assist youth entrepreneurs in conducting their business.

Against this concern, this study as solution to the problem arises by designing and developing an informative platform for young entrepreneurs that intends to start a business or seek for the new opportunities. The informative platform also known as Content Management System (CMS), by what youth would be able to consider when they decide to have their own business or enterprise. The objectives of this study are a) to provide references for the youth entrepreneurs to start up new business b) to gain experience in business from case studies c) to link to the related agencies in Malaysia. The researchers emphasize CMS life cycle and open source of CMS that will be considered in this research and project for developing CMS for Ministry of Youth and Sports, Malaysia.

## 2. Literature Review

### 2. 1.Information needs for an entrepreneur

In a fast developing country the same Malaysia, it is crucial that these youth entrepreneurs have the relevant and accurate information so as to enable them to make the best business decision. However, the information that exists on the services and facilities available is not systematically organized to enhance easy access and retrieval. In other words, information on existing services is largely scattered and thus hampering effective business decision-making. In addition, the information lacks relevance to meet the growing demands of the small-scale business community at the market. Various organizations and individuals organize and process information on their own.

Studies on information needs of Malaysian entrepreneurs are scarce (Kassim, Ahmad & Buyong, 2009; 2010; Kassim & Buyong, 2010). In a study that investigates the information needs of Malaysian Bumiputera would-be entrepreneurs, Kassim (2010) reports that there are various types of business information needed by respondents. Beside preparation of business plan, it continues with planning of cash flow, examination of business opportunities and profit planning. The sources from which they obtained their business information are courses related to product or services; follow by business exhibitions, Internet/ e-mail, business premises, government agencies and technical training. The study has a reflective impact on making recommendations to business supporting agencies concerning entrepreneurs' and business sectors' information needs in Malaysia. However, to maintain and survive in today's competitive business world, small businesses require access to accurate and relevant information both at start-up and during day-to-day operations. Throughout, these strategies enable them know the current trend of business, innovation and support (Ramsey et.al, 2003).

### 2. 2.Entrepreneur access to networks

Ntsala (2000) observes that modern information professionals has a duty to educate the small entrepreneurs on the importance of developing their own information systems in order for the entrepreneurs to have access to information that could be quite critical to their business success. In another study by Bulsara, Ghandi & Porey (2011), techno-entrepreneurship is access to marketing, human resource management, financial management, manufacturing management and networks. Gupta et al (2006), states as networks create to knowledge mapping and gathering, knowledge creation, value addition and also knowledge application and dissemination.

According to Nedelcheva (2012), one of the initiatives in the action plan was the creation of a web platform for female entrepreneurs where women can find relevant information regarding business establishment and growth. In addition, the web platform, which is containing formal and social networks, provides different sources of information and sources for helping them in many ways. Neergaard et al. (2005) who suggest that studies on entrepreneur networks should focus their attention on connections providing different types of support, both tangible and intangible, in order to acquire better knowledge of the influence that social capital has on entrepreneurship.

### 2. 3. Information access by entrepreneur

According to Hashim (2009), in her studies of information needs of women entrepreneurs in beauty-related business, different type of information access by them. They agreed that training courses had provided them with better guidelines, the proper way and clear objectives in future business. Based on her reports, the types of information needed by potential women entrepreneurs are customer relationship, land or premises for the new outlet, account management, leadership skills, and training. In addition, entrepreneurs need information regarding customer psychology, leadership skills, source of financial and training regardless information on land and premises to open the outlet to have the strategic location. In addition, entrepreneur also needs information on popular product in the market regardless customer psychology, customer needs and communication skills to deal with customers.

In another study by Kassim (2010) regarding type of information access by entrepreneur, has involve new managers in small and medium-sized enterprises. The report of the study, states that the most common types of information required by business manager are business information and opportunities, financial sources, current market trends, location, sources of raw material and information on customers. Furthermore, the entrepreneur expects to have knowledge of business information, business concept and opportunities. However, information on the availability of capital is the single most common specific information need under financial sources because respondents are concern with the sources of their capital requirement for their business.

### 2. 4. CMS as informative platform

According to Collins (2003) in the studies, agree that knowledge portal as a new era of the web platform for the next generation in accessing information. Hence, it's provided dynamic access for the decision-making. The commodity of computer technologies is moving faster in this decade enhance to the localized computing platforms for an organization, government sector, public agencies and enterprise. Nakano (2001) states, as developing market of the internet to build website is struggle to compete, which need existing resources and combine them with new internet technologies, content management become a dynamic platform as a solution.

Managing and finding information request along with the tremendous demands of encourage to developing of content management strategy. Sivakumar, Sivaraman, Tamilselvan and Sevukan (2011), list the benefits from digital content management systems as relevant, which is the content meets need of users and organization. In addition, CMS is being organize that can be easily located and also customize due to formatting entail for the person's task. In addition, CMS can be link other agencies to collaborate knowledge and contribute, sharing with others people, organization, and businesses.

### 3. Content Management System Life Cycle

Content management is about managing data when it is created until managing it throughout its lifecycle, to enable people to search, access, retrieve and utilize. Content creation, review, approval, and publication are performed in a continuous process in CMS lifecycle, involves more people from the administrative team (McKeever, 2003). According to Jadama (2012), in the studies of implementing web content management for a charity group, he classifies CMS life cycle in two phases. The first stage starts with content collection and creating which might save in the local database and second stage is content storage in an appropriate storage with website's lifetime. In addition, Goodwin & Vidgen (2002), claims that the new content as living system in CMS lifecycle. Hence, it must be created, updated and destroyed when required.

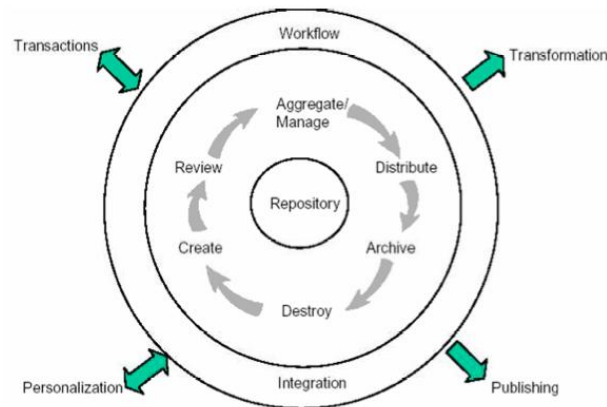


Fig. 1. CMS Life Cycle presented by Gilbert et al (2000)

CMS lifecycle in this research adapted from Gilbert et al (2000). In their studies, there are fundamental elements to build the content management strategy that are the repository, workflow, and integration. In this research, new content will be created and linked to facilitate youth entrepreneur to get references, guidelines, information, training and support. For this reason, the information needs to be update and revise to make ease of use for them. Karlsson and Gennas (2005) describe the items outside the CMS lifecycle in Gilbert et al (2000), which are transaction, transformation, publishing and personalization as technical issues.

#### 4. Open Source Content Management System (CMS)

Open source refers to both the concept and practice of making program source code openly available to use, practice, and download. Open source CMS enables user to have the software by downloading from the web server. A user can do whatever they wish with the product and the code behind it, increasing and integrating, as it is appropriate to their organization. The CMS software is free, and anyone can download and install them on a web server without the cost. A user either needs to put a lot of time into implementing and maintaining the system if they need to appoint someone to accomplish and maintain without skill and expertise in the organization (Shah, 2012). However, open source CMS implemented as a web-based application designed for creating and managing HTML and also enabling non-technical users, with friendly user interfaces to create, edit, manage and control a dynamic web material (Joshi, 2012).

There are various open source CMS available ready to be downloaded. However, user needs to do some research, evaluation and comparison for the appropriate open source CMS as to reduce the cost of having their own CMS. Currently, among the commonly used open-source CMS are Joomla, Drupal and WordPress (Shah, 2012). In addition, the comparison of programming languages, databases and web servers to build CMS, will enable users to review the most appropriate CMS solution. It also provides information on FTP support and UTF-8 support for the CMS. Additionally, Shah (2012) states Joomla is the easier to for beginners. Even though, there are fewer choices of design templates for Joomla, the software has a enhanced user interface rather Drupal. While, WordPress is categorized as the best solution for the user as the plugin architecture allows them to extend its features.

#### 5. Research Methodology

The study will adopt the survey research approach. The method of data and information gather through survey questionnaires. The questionnaires comprise of six-item measures adapted from United Nations Conference on Trade and Development (UNCTAD), (2013). Data will be analyzed using SPSS version 21.0.

There are 5,000 set of questionnaires will be distributed according to five zones in Peninsular Malaysia which are:

- Zone A (North –represent Kedah, Penang, and Perlis)
- Zone B (South –represent Johor, Malacca, and Negeri Sembilan)
- Zone C (East – represent, Trengganu, and Pahang)
- Zone D (West – represent Perak, and Selangor)
- Zone E (Central - represent Wilayah Persekutuan)

## 6. Sampling

In the survey research method, the researcher tends to capture phenomena at the moment. This method is used for sampling data from respondents that are representative of a population and uses a closed-ended instrument or open-ended items. A survey research is one of the techniques to gather data in the social sciences (Williams, 2007). In this research, respondents are Malaysian citizenship from the age of 18 to 40, which intend to have their own business.

## 7. A Conceptual Research Framework

The research tends to address three research questions; a) what is the information needs b) type of information access and c) medium use to access information. Hence, the objectives of this research are: a) to provide references for the youth entrepreneurs to start up new business b) to gain experience in business from case studies c) to link to the related agencies in Malaysia. For this reason, input from these activities will be manipulated to develop dynamic, scalable and effective CMS for Ministry of Youth and Sports, Malaysia.

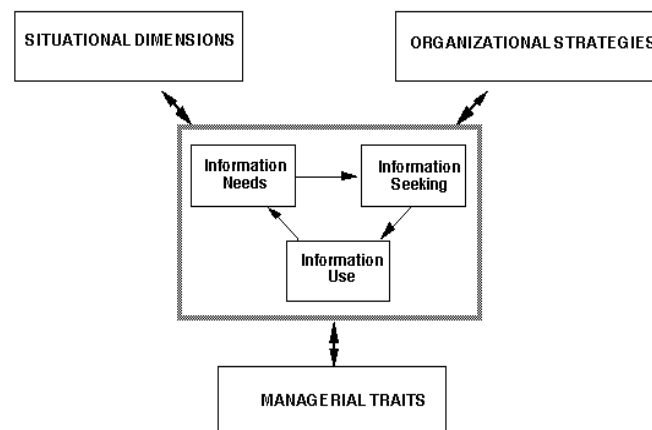


Figure 2. Conceptual research framework for this research adaptation from environmental scanning Choo (2001)

Referring to Choo (2001) environmental scanning, this conceptual framework is adoption to youth entrepreneur by what Ministry of Youth and Sports will be responsible to provide, offer and deliver the information to them. For this reason, in this situation the entrepreneurs involve in information needs, information seeking and information use. Wilson (2006) points out that information needs and information seeking behaviour is infinite and depending on individual situation, requirement, intention, and interest. In addition, it is states that the study of human information-seeking behaviour is drawn to information use in individual or personal area and subject matters.



## 8. Conclusion

Content Management System is becoming widely used in managing web content. These tools provide a platform for the construction of web-based tools that are easier to manage. It is hardly to recommend the best solution for open source CMS because it is depending on various criteria such as the project itself, the reasonable price, the expertise and existing content database if the organization. In this research, researcher is considering the early stage, of developing a framework for the youth entrepreneurs in Malaysia for Ministry of Youth and Sports, Putrajaya, Malaysia. The result of this early stage, will resume for the CMS architecture of this project.

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## Do Teambuilding Activities Beef up Organizational Development at Workplace?

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### Abstract

In order to continuously develop itself as an organization, a university management relies on a strong pool of human resources which includes academics, administrative officers and support staff. Organizational development is a continuous effort at helping people to enjoy working together as a team towards reaching their individual and organizational goals (Argyris&Schon, 1978, 1996; French & Bell, 1995; Bolman& Deal, 1997). Team building activity is one of the mechanisms used by organization to develop strong human resources (Finger & Brand, 1999; Philips &Elledge, 1989; Prichard & Ashleigh, 2007; Senge, 1990; Senge et. al, 2000). Like other learning organizations, universities are also moving towards using team building activities in their organizational development exercises. However, it is interesting to investigate to what extent do team building activities which are normally carried out within and outside campus affect staff morale and spirit of working as a team. This study aims to evaluate the impact of team building activities on faculty organizational development. Additionally, it examines how the entire team building program is planned, implemented and evaluated. The findings of the study are anticipated to contribute to the knowledge on how and what types of team building activities can assist universities in developing their human resources.

*Keywords:* Team building, Team work, Team effectiveness, Training, Trainingevaluation

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### 1. Introduction

The use of teams and decision groups in organizations is a growing phenomenon. Many organizations and companies today are beginning to recognize the obvious about teams because it out-performs individuals. As the use of teams in the workplace has increased, it has become important for managers to understand that transforming individuals into an effective working team does not happen automatically, it takes effort. Many organizations have in the past, assumed that a team is a mere collection of individuals and, as much assumed that merely putting the members together would result in effective performance. Although organizations are increasingly utilizing teams to accomplish work tasks, there still remains a lack of prescriptive guidance for organizations in terms of how to capitalize on the potential synergy teams' offer. Groups are increasingly considered critical for accomplishing important tasks and solving complex problems for organizations (Barrick et al., 1998; Stewart &Barrick, 2000; West, 2002).

To solve all the problems regarding the teamwork, there is a need for human relations training. For example, employees should be trained on basic communications skills such as active listening, giving and receiving feedback, etc. However, to be able to measure the impact of the training, the evaluation process should also address: What type of training to implement? What changes are necessary to make the course more focused and/or relevant?

How well does the course address its stated objectives? What actions and/or results are further anticipated and/or expected of participants? What observable or otherwise measurable increases in knowledge or skills have been obtained? What positive effect has the training had on organizational efficiency and productivity, and can any changes incurred be attributed directly to the implementation of the training and not just to occurrence by accident or coincidence?

One of the popular and common interventions is teambuilding, also called team development or group development. Porras and Berg (1978) observed that teambuilding was one of the most frequently used organization development interventions. As an intervention, teambuilding is simply a means to get either a new or poor performing group on track, generally with activities that strengthen those "peeking" critical concepts. Any teams that have all those concepts and have them in balance will certainly be harmonious, efficient and productive while meeting their objectives and adding value to the organization. Teambuilding interventions are evidently believed to lead to a substantive increase in team performance. Many organizations have turned to teambuilding interventions as a way to improve team performance. In particular, we see a growing interest in the team performance in a variety of organizations, be they corporations, public agencies, or colleges and universities. We see the theme of collective and interactive performance by teams throughout the professional literature: We hear references to 'the team as hero' (Reic 1987) and we attend the slogans like, 'Forget charisma, focus on teamwork' (Cox 1989). Shandler and Egan (1996) claim that by applying principles of teambuilding, "any group can transform itself into a high-performing team".

Researchers and practitioners have recently emphasized that teams can be effective as they coordinate and apply the resources of individual members to stimulate creative solutions and implementation (Banker et al., 1997; West, 2002). Reviews of the empirical research suggest that groups can accomplish tasks more effectively than individuals working alone in a range of situations (Hill, 1982; Johnson et al., 1981; Kelley & Thibaut, 1968). However, conditions affect this generalization. For example, the value of group work is heightened for complex tasks, whereas for simple tasks individuals can be as or even more productive (Beersman et al., 2003; Johnson et al., 1981).

Studies of work teams in a variety of organizational settings have shown that team effectiveness is enabled by structural features such as a well-designed team task, appropriate team composition, and a context that ensures the availability of information, resources, and rewards (Hackman, 1987).

Many researchers have concluded that structure and design, including equipment, materials, physical environment, and pay systems, are the most important variables for improving work-team performance (Goodman, Devadas, & Hughson, 1988; Campion, Medsker, & Higgs, 1993; Cohen & Ledford, 1994) and have argued against focusing on interpersonal factors (e.g., Goodman, Ravlin, & Schminke, 1987). According to this research, organization and team structures explain most of the variance in team effectiveness.

## 2. Statement Of The Problem

Although the teambuilding was mentioned as one of the most frequently used organization development interventions, however, several reviewers (e.g., Buller, 1986; Woodman & Sherwood, 1980) have observed that there is no conclusive evidence that teambuilding renders an increase in team performance. Druckman and Bjork (1994) noted that the enthusiasm for these approaches among practitioners "is not matched by strong empirical support for their effect on team performance".

Similarly, Smither, Houston, and McIntire (1996) concluded that "Research findings on the effectiveness of teambuilding provide a complex mix of results that make drawing firm conclusions difficult". More than 20 years after Beer (1976) attempted to formalize the notion of teambuilding; some of the most fundamental questions about the effects of teambuilding remain: Does teambuilding enhance performance? Why? Under what conditions!

Several issues need to be addressed in examining the effect of teambuilding on performance. First, the significance and magnitude—indeed, the very existence—of an effect of teambuilding on performance needs to be established. Second, differences between objective and subjective indices of performance have been delineated in other domains, but there is no a priori determination of the extent to which teambuilding would differentially affect these two different ways of operationalizing performance.

Third, the degree to which a given teambuilding intervention engages different components of teambuilding might influence the effectiveness of the teambuilding intervention. Fourth, the effect of team size needs to be specified, particularly in light of recent findings in cognate areas indicating that group size exerts a considerable effect on other group phenomena. Finally, the effect of the duration of teambuilding interventions on their effectiveness is of considerable practical significance. Each of these considerations is addressed in turn. Thus, the problem of this study is to determine the impact of teambuilding activities on organizational and staff development.

### 3. Research Questions

This study seeks to determine the relevancy of the teambuilding activities and content towards staff workplace context, i.e., is it tailor made to the participants' needs or remain general in nature. It also seeks to determine the level of use of information and experienced gained from teambuilding activities in facilitating their professional and personal development, i.e. teamwork, team-learning, academic development, and technical development, social and ethical well-being. As for the research questions this study addresses, the following are the main questions of the study;

- How do the team building activities address issues related to staff workplace context?
- How do team building activities impact staff professional and personal development?

### 4. Methodology

The primary objective of this study was to obtain baseline data on staff engagement in developmentally-based programs especially teambuilding activities both on and off UPM main campus. This part describes the research procedures utilized in this study that involves the design of the study, the population and sample, the data gathering instruments and the method used in collecting and analyzing the data.

### 5. Design Of The Research

This research adopts a qualitative research design in examining the teambuilding process. The study undertakes in-depth interviews to be conducted to staff that have been involved in the teambuilding programs organized by the university. In other words, the respondents selected are academicians and support staff of UPM who attended a teambuilding program conducted in campus and off campus. Pilot interviews are to be constructed and tested before being administered to staff in the faculties with the permission of every targeted faculty dean. Formative evaluations will also be conducted during the development of the program with the intent to improve the program. This process evaluation, which will be done via observation and document analysis, will describe the program and its outcomes. In addition, data which will be collected from a summative evaluation exercise to be conducted on campus after coming back from the team building program will also be utilized to analyze the process and understand the phenomenon.

### 6. Expected Result/Benefit

It is anticipated that this study will contribute to new findings, acquire baseline data on university staff engagement in positive, developmental activities and lifestyles for example, teambuilding activities and how they affect their professional and personal well-being. It also assists and provides input on staff program development to the staff development personnel of UPM.

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# The Role of Social Network for the Development of Rural Malay Family-Based Herbal Entrepreneurship in Malaysia

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## Abstract

The social network plays a key role for any types of rural family-based entrepreneurship development. The entrepreneurs need co-operation from government and government- link companies. Therefore, for this study, the level of social network was investigated among rural Malay family-based herbal entrepreneurs for the development of rural Malay-based herbal entrepreneurship in Malaysia. It was a qualitative phenomenology research with eight rural Malay herbal entrepreneurs from five states of Malaysia for an in-depth interview. The study showed that rural Malay family-based herbal entrepreneurs are far behind in development of their entrepreneurship due to lack of social network. It also suggested that family members and relatives, and close friends can play important role for their entrepreneurship development.

**Keywords:** Social network, herbal entrepreneurs, qualitative phenomenology approach and Malay community

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## 1. Introduction

Social network is an important issue globally to develop any category entrepreneurship. In spite of intensive study of business and entrepreneurs, social networks and the importance of family-based entrepreneurship in social and economic development of the last decades, limited attention was given in this area (Paul et.al.,2013; Birley, 1985; Aldrich et. al.,1986; Carsud et. al., 1987; Jaafor et. al.,2009). The discussion begins with the role played and the problems faced by rural Malay family-based herbal entrepreneurs and the relationship between the entrepreneurship problems and their association with the resources of the external environment will be elaborated upon. Discussion is concerned with how entrepreneurs establish networks of relationships with the social resources surrounding them during the management of their entrepreneurship activities.

The development of entrepreneurship has been given priority in both developed and developing countries (Paul et. al.,2013). This can be seen by the formation of government policies and the establishment and involvement of government agencies is assisting entrepreneurship development throughout the world. For instance, the government of America, Europe, Korea, Japan, Taiwan established entrepreneurship development policy for their country economy growth (Blackford,1991; Norhaiyati et. al., 2011; Van Prag & Verslot, 2007).

Meanwhile, public policies for small firms in Europe have been emphasized since 1970s. Small medium manufacturers are providing full employment both in developed and developing countries. In most developing countries, small medium manufacturers are supported by the government because of their perceived importance in societal and country economy development (Schapper, 2006). Besides, their potential for generating employment and income small medium manufacturers are also important vehicles for promoting forward and backward linkages in geographically and economically diverse sector of the economic. The effort required to develop small category manufacturers is significantly higher in developing countries mainly in the poorer nations.

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In Malaysia, small medium enterprise plays substantial role in country economy and quality of life development. The government of Malaysia is now fully depending on the country economy and quality of life for rural people. As a result, government of Malaysia is trying heart and soul to increase the number of successful rural Malay herbal entrepreneurs and approved more fund for their entrepreneurship development. For instance, currently 13 ministries and 52 government authorized agents and others NGO are involved to develop their entrepreneurship through training, funding, and others facility as their need. According to Hamidon (2009), that general category entrepreneurship is developing among Malays communities in every year but technical related category entrepreneurship is very low ratio compared to other ethnic groups like Chinese. According to Murray (2011) the herbal entrepreneurship in Malaysia has become another economic growth engine and it has the future to become a significant sector (Ibrahim, 2006; Jamai, 2006). The estimated market value of herbal industry is RM7.97 billion (Kasim, 2007) and also different researchers in this field mentioned that in a short period it would be RM10 billion. Because every year not only Malaysia, globally increasing herbal products using ratio such as Germany, Canada, Australia, USA, India and China. In Malaysia now, all government hospitals doctors are prescribing herbal products as an alternative medicines. From the above report, it is evident that herbal product uses and entrepreneur numbers are tremendously increasing in every year.

The government of Malaysia also increasing more fund, training, promotional and human resource activities based on entrepreneurs need in every year especially in herbal entrepreneurship development. However, the Malays involvement in herbal sector is very low (Ling et. al., 2009). It is evident that not many studies have been conducted on herbal and entrepreneurship development (Paul et. al., 2013; Ucbasaran et. at., 2001; Smith et. al., 2009; Kirzner, 1973). Thus, this study is designed to identify the factors to develop the Malay herbal entrepreneurship development.

On the other hand, entrepreneurs themselves may contribute to their own entrepreneurship failure if they fail to understand the nature of entrepreneurship development requirements. To avoid business failure, an entrepreneur has acquires some knowledge and understanding of managing business and also skill and experience in particular business as well as an ability for self-development. However, among the various factors are contributing to the unsuccessful rural Malay herbal entrepreneurs. The main factors are; (1) limited working capital, (2) limited access to the market, (3) inadequate technical skill, (4) lack of operational skill, (5) lack of marketing skill, (6) lack of social network, (7) lack of entrepreneurial culture, (8), government guidelines strictly follow the GMP requirements. Financial problems are generally considered to be one of the major difficulties of small scale manufacturers (Paul et, al., 2013; Hamodon, 2009). Malay entrepreneurs usually fund their entrepreneurship from their own savings, loans from relatives and friends in this case help to reduce financial difficulties faced by small medium enterprises where an entrepreneurs needs to establish, develop and maintain the network of relationships. It is argued, the network ties with relatives and friends are important especially as a source of fund for the entrepreneur entrepreneurship (Aldrich et al., 1987; Paul et al., 2014). This in some way explains why entrepreneurs in Malaysia have relatively few network links with peoples in banking sector and other credit institutions. However, other reason contributing to shortage of working capital are lack of financial planning, and lack of inadequate book keeping proper accounting records is necessary for this business (Faridah et, al., 1990).

## 2. Literature Review

### 2. 1. Importance of Social Network for Entrepreneurship Development

For rural herbal entrepreneurship development in Malaysia social networks are the crucial factors undoubtedly. In Malaysian context, previous scholar conduct study different areas like human resource development, training program and others revealed field but little research carried out in this area social network development (Aldrich et. al., 1987). Therefore, as small scale manufacturing firms are of increasing importance developed and developing countries, research into entrepreneurial networks needs to be given attention, in order to support the development of the small firms of the future (Klyver and Foley, 2012).

## 2.2. Government's Financial Support and Entrepreneurship Development

Micro enterprise which is accounted for more than 80% of Small and Medium Enterprises (SMEs) establishment is an important component of the economy in both the developing and developed economies globally (Pimenova and Vorst, 2004; Sievers and Vandenberg, 2007; Tuyon et. al.,2012). In Malaysian context, Malay entrepreneur are full dependent the government and government agents, NGOs support until now (Hamidon, 2009, Siti, 2011; Paul et. al., 2013; Ong et. at.,2010; Jasman et. al.,2011). The government support of entrepreneurship development program is remaining challenging. The different scholars revealed that faced by all categories micro-enterprises are regards to implementation of government entrepreneurship development supports among others such as lack of coordination among service providers, very low usages of services, limited awareness on this services and finally bureaucracy on the role of government link companies (Hamidon, 2009).

## 2.3. Technology Implementation barrier for Micro-level Manufacturer

In the present world, rural entrepreneurship has been undoubtedly considered as an important area for the any developing and developed countries economic growth and quality of life including job creation (Van Praag and Versloot, 2007; McMullen et. al.,2008; Audretsch, 2007; Shu, 2001). Therefore, the government of Malaysia has been fostering entrepreneurial activities mainly in technology –based micro-manufacturing firms in order to increase more Malay entrepreneurs in industrial sector. Moreover, due to limited technical knowledge and skills such as product development, research and development management, and low technology have been identified as major factors that impede the development of Malay technology entrepreneurs ( Ismail and Sulaiman, 2007; Ellitan, 2002). There are a lot of barriers and problems implementing that hindered these rural Malay herbal entrepreneurs to implementing technology (Nordin et. al., 2008; Paul et. al., 2013).

## 2.4. The Importance of Marketing Development for Micro-manufacturers

Additionally, most of the micro-manufacturers use simple operation strategy but for marketing need more skill. This is due to their market –orientation mainly local customers. Previous scholar mentioned that Malay entrepreneurs are so behind relatively other ethnic groups since long time due to social network. On the other hand, Chinese and Indian entrepreneurs are strong in marketing and their business performance in all categories is very good. Perhaps, Malay entrepreneurs can modify model among their people in order to widen their personal networks (Hamed,1995; Paul et. al.,2014).

## 3. Methodology

Research methodology is one of the important that has to be considered by researchers in ensuring the success of their research project. The purpose of the qualitative phenomenology research study was to explore the individual's personal experience of rural Malay family-based herbal entrepreneurship development. For the purpose of the study presented here, only rural Malay herbal entrepreneurs who had been involved in this business for at least eight years experience. The eight participants was selected for this study, rural Malay herbal entrepreneurs who have running this entrepreneurship for at least eight years from five states of Peninsular Malaysia namely Kelantan, Kedah, Pahang, Perlis and Trengganu. The study focuses on gaining interviews with eight rural Malay herbal entrepreneurs and gradually analyzed the data. The interviewing of participants continued until the achieved theoretical saturation point. The validity and reliability of the study ensure that provides data was meaningful in formation which is free from errors for analysis and collection (Creswell, 2005).

## 4. The lack of working capital

A major problem is faced by many rural Malay herbal entrepreneurs in Malaysia is a lack of working capital which they need to development entrepreneurship development (Singh, 2011).

*“My main problem is financial capital. I need more fund to support my entrepreneurship development. Our herbal business is family based and we have the intention of developing our entrepreneurship. You tell me where I can get fund to develop my entrepreneurship. If the business grow is to grow, I need to buy more raw materials and increase employees. All of these activities need money. I tired to seek finance from government and GLC but had a bad experience with all. One day I met a GLC senior officer in the herbal products promotional booth and he asked me visit him in his office. A few days later, I met him, to obtain loan need some security for loan approved. As you know we are all rural Malay herbal entrepreneurs always hand to mouth. I do not have money except my old wooden house. The promise he made in the sales promotional booth, it is nonsense”.*

### 5. Marketing Problems

Malay herbal entrepreneurs market their products with government support promotional sales, social networks, face book and agents. The early studies by different researchers found that marketing problems are one of the crucial problems for Malay entrepreneurs since long times (Paul et. Al.,2014; Faridah et. al.,1990).

As reported earlier herbal micro-entrepreneurs depend on retails to market their products but the majority of them are facing difficulties in getting those retailers or shop-owners to sell their products. The reasons given by the shop-owners are that they already have their similar products or they do not have enough space. One of the respondent eight respondents complained: *“If the shop-owners do not want to sell the products, they will try to give me lot of reasons. Some of them said they already have similar products. The others told they no extra space to display my products. The main reason is that they do not want to sell our products or they are happy with others entrepreneurs.”*

The important point of this study is that it is related to the network contacts and relations of the business owners with customers-how they obtain access to the customers and penetrate the market.

### 6. Technical Employee Problems

Skill employees are another main problem for rural Malay herbal entrepreneurs to run their entrepreneurship. Some entrepreneurs are become skill as a family members are involve in this family business for long time. Two respondents argued, where the family members will leave the business after they get a permanent job or further study. Two of eight respondents stated that:

*“My sister helped me in doing record keeping my in every sales, expenditures and all accounts. She had just finished her STPM and was waiting for an offer letter to get place in Government University for business and accounting information undergraduate course. I do that work myself if she is not around but I have to work extra time. I think I should get someone to do that work if she leaves”.*

### 7. Production Problem and GMP guidelines

Rural Malay herbal entrepreneurs are micro-manufacturer and few are successful in this business. At present rural Malay herbal entrepreneurs are changing their family business after government new guidelines started. For technology implementation barriers and new GMP guidelines- the rural Malay herbal entrepreneurs are facing problem to develop their entrepreneurship (Paul et. al.,2013; Hawa, 2011; Nordin et. al.,2008). Seven of eight respondents stated:

*“We are micro-herbal entrepreneurs and it is our family business since long time. As you know it herbal business is technical but we have no academic qualifications. We learn from our grand-parents, never follow any rules and regulation which is instructed by ministry of health. Now, forces us to follow GMP guide lines for any production or shut down our generation business. How we follow GMP guidelines for our productions, without money? As a result, lot of rural Malay herbal entrepreneurs are changing to general or planning to do something else.”*

## 8. Findings and Discussions

The research findings showed that more than majority of rural herbal family-based entrepreneurs are not at the development stage ;due to strictly follow GMP guidelines low level of technical education, social network, marketing, constraints finance, shortage of raw materials, limited technical manufacturing knowledge. On the other hand, those nascent herbal entrepreneurs are buying and selling herbal products from others contract herbal manufacturer common products with short time business plan, these types of rural Malay herbal entrepreneurs are doing well compare to old timer family-based herbal entrepreneurs those are running it in rural for long time.

For this study, the most valuable finding for the development of rural Malay herbal entrepreneurs is related to the utilization of people from whom entrepreneurs can give business resource, experience, skill, knowledge, information and so on. It is found that those entrepreneurs are strong networks with their group members and there business performance is very good. The strong networks are with parents, spouses, relatives, old friends, government and government agencies, financial institutions, customers and suppliers. To manage network relationship with business related groups and others. From that network development, entrepreneurs can gain benefit such as business information, credit from the suppliers, advice, social support, money, profit, and so on especially when trust between parties exists. In addition, the study showed that Malay herbal entrepreneurs are maintaining good networks among their Malay community entrepreneurs and very limited networks like Chinese groups or suppliers. The data showed that Chinese entrepreneurs are not only dominated herbal business activities for decades and also in others business sectors .Finally, in general Malay entrepreneurs are not aware that they have a huge social resource that can benefit of their entrepreneurship. Their social structure and relation showed that they have a large circle as a majority of personal networks. The finding of this paper is demonstrated that all the peoples surrounding entrepreneurs can provide valuable resources which could enable them to achieve their business goals if these resources properly used. The strong networks can in some way support the development of their herbal entrepreneurship but entrepreneurs need to be skilled in managing and utilizing these groups whenever necessary.

It is important for networking skills course can be developed that will allow the entrepreneurs to know their strengths and weakness in entrepreneurship and mainly in networking skills. This course should be able to equip the entrepreneurs with the understanding of business environment elements and social resources and with the principles and practical aspects of networking skills which can be used by entrepreneurs for the development of their entrepreneurship. Second, it is argued that government staffs who are involved in developing Malay herbal entrepreneurship do not have hands-on experience of running their own business. Therefore, it is essential for government and GLC to equip their staffs with entrepreneurship development education including networking skills. These groups are close to the herbal entrepreneurs and authoritative in giving assistance and support for the development of Malay herbal entrepreneurship. For that, they should have the skills to stimulate and impact some knowledge on herbal and entrepreneurship to the entrepreneurs since they are very important members for the Malay herbal entrepreneur community. Third, it is necessary for rural Malay herbal entrepreneurs to join different types of entrepreneur societies which consist of multi-racial members. These kinds of societies can provide fertile grounds of making contacts and gaining access to a variety of resource people. Forth, for the Malay entrepreneurs are very essential to develop networks with Chinese and Indian entrepreneurs since they have strong business networks and control in different types of entrepreneurship. In addition, entrepreneurs need to keep in regular contact with this group. Five, government and GLC are necessary to provide the details of GMP guidelines and manufacturing technical knowledge. Six, the new modules is applicable for herbal entrepreneurship development of all ethnic groups of entrepreneurs. Because of the current running policy is not clear direction for entrepreneurship development. Seven, since, the herbal entrepreneurship develop research is relatively new, therefore, the strong recommendations are; (1), conduct similar study in other state to justify research finding gap, (2), conduct similar comparison study with other ethnic groups to identify the different entrepreneurial culture, (3), perhaps, research need to conduct before an entrepreneur ventures into entrepreneurship and after a few years in entrepreneurship because the network require time to develop. Finally, this paper on has shown that networks and networking have implication for entrepreneurship programs and

development. The finding of this study has contributed to the current understanding of herbal entrepreneurship development through social networks and the community can help to boost business among their own Malay herbal entrepreneur communities.

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## BETWEEN TWO CULTURES : CIVIL SERVICE REFORM IN THAILAND AND INDONESIA

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### Abstract

In many Asian countries, public administration is in the process of considerable change and reform. Citizens in these countries have demanded faster, better, and cheaper public service. They have also demanded for more effective and efficient government. In order to meet these demands, the nation has to change its public management into more democratic, efficient, and citizen-oriented government. A civil service reform is needed in those countries with respect to their own social cultures.

Keywords : Civil Service reform; bureaucratic culture, political influences, corruption.

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### 1. Introduction

Culture is the reflection of the economy and politics. The dominant and newly emerging forces in the economy and politics are also embedded in culture. However, culture is neither simply the ideological reflection of current forces nor the contra distinctions in the economy and politics. It is also the accumulation of notions, customs, habits and the like which dates back to prehistory, and persist in current circumstances as long as there are transmitters and they are part of the social and psychological make up of people within local sites.

The bureaucracy has a structure that breeds its own administrative culture. Incoming political leadership often reacts to the bureaucracy it inherits by instituting personnel purges or reorganizing or both, either to cleanse the old system and reorient it to the needs of the new dispensation, or to reshape the administrative culture and values in facilitating targeted policy and program objectives. Consequently, a new political order carries its own political culture to the regime-bureaucracy relation. As the bureaucracy accommodates and eventually trusts the new regime, an administrative culture supportive of the political leadership ensues.

### 2. Public Service Reform

In 1991, the World Bank released a report entitled “The Reform of Public Sector Management : Lesson From Experience”<sup>4)</sup> which was drawn from the experience of the World Bank and its member countries in the 1980’s and has approached civil service reform from two complementary perspectives which are : short-term cost-containment measures aimed at reforming public pay and employment systems, and medium-term programs to build institutional support for cost-containment and to strengthen the government’s ability to manage the civil service. For a short term measure, the government pay and employment reform has focused on four main problems, such as :

- a. excessive public sector wage bills, measured both by the ratio of personnel expenditures to government revenues or total expenditures and by the degree to which recurrent expenditures are crowded out by wages.
- b. surplus<sup>5)</sup> civil service staff, with “surplus” defined by a range of measures and rates, including the member of civil servants in relation to the member of participants in the modern sector labor forces, and by operating budgets too low to support the current member of employees,

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<sup>4)</sup> World Bank, Country Economic Department, “ The Reform of Public sector Management : Lesson and Experiences”, World Bank : Washington D.C, 1991.

<sup>5)</sup> The nation of “surplus” contains an element of subjectivity; rigorous measures of the concept have proved difficult to devise and apply. Criteria used include comparative (cross-national) ratios of the number of civil

- c. salary erosion, that is declines in wages that reflect not only the high level of inflation in many countries but also trade off between expanded employment and lower average pay, and the proliferation of non-wage benefits to mitigate the fall in real pay; and
- d. wage compression, meaning low ratios between the highest and lowest civil servant salaries making it difficult to attract and retain qualified staff.

These reforms were the reaffirmation to the issue of the modernization of public service experienced by the Western countries, especially in the Organization for Economic Cooperation and Development<sup>6)</sup>. The following factors helped to push this modernization : *first*, the economic and financial pressures facing the government of such countries in the last quarter of the twentieth century and the early years of the twenty-first century. These pressures led government to question the benefits of traditional large-scale public bureaucracies and reinforced demands for greater efficiency and value of money in the operations of civil services. Governments have “reassessed their bureaucracies and demanded changes” (Hughes 1998, p.4).

*Second*, the public pressure on governments to deliver services that are more responsive to public. There has been a growing recognition that the consumer of public services should be at the heart of the arrangements for services delivery. Whereas the traditional public administration perspective was based on the idea that public sector management was different from business management, there is now a view that public administration “has everything to learn from the private sector” (Gunn, 1998, p.21). There is a belief that “better management” can solve a range of economic and social problem faced by governments (Pollitt 1993, P.1), and that management techniques from the private sector should be imported into the civil service and other parts of the public service.

*Third*, the growing awareness of the potential of information technology in helping to improve the efficiency and effectiveness of public service operations (see : OECD 1990, p.14). Technological developments have transformed the processes of public administration. The development of information technology in the delivery of public services is one of the four administrative “ megatrends” linked with the emergence of the so-called New Public Management or well known as the *NPM* (Hood,1991, p.3).

*Lastly*, the desire to improve political control of central government bureaucracies is another important factor in helping to explain the modernization agenda. In a number of Western liberal democratic countries, the higher civil service has been seen as an abstract to control by elected politicians. Concerned that permanent officials had become too powerful in the formulation of public policy, the political leaders of many Western countries have attempted “to reassert political control over the bureaucratic machine” (Pollitt and Bouckaert 2000, p.155).

The public service reform is often done with respect to social and culture aspects which are observed in countries implementing the reforms. Experiences from Thailand and Indonesia are given in the following discussions.

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servants to the overall population, or as percentage of the country’s modern sector labor force. Another measure often used is the extent to which personnel costs “crowd out” operating budget for supplies and maintenance. In trying to determine when staff are in surplus, functional reviews and staff inspections may be undertaken to identify sector-or function-specific excess through the use of ratio analysis-which applies standardized norms of, say, proportion of agricultural extension workers to farmers.

<sup>6)</sup>Organization for Economic Cooperation and Development (1990 and 1993) “ Public Management Development : Survey 1990 and Survey 1993” Paris : OECD, 1990 and 1993.



### 3. Thailand : Norms And Values

In Thailand, the new bureaucratic culture was introduced by King Chulalongkorn who understood the demand of his time, opening the way for administrative reforms, systematic modernization and absolute royal control. From this time onwards, Bangkok's appointed bureaucracy was instituted, control over the Buddhist Monkhoo (Sangha) established, general education introduced and a modern communicators network built up. In the process, the corves system was abandoned and the slaves emancipated (Prizzia, 1986). However, official political culture is preoccupied with teaching morality. If everyone knows manners and behavioral conduct, the external world consisting of the wider society will be in good order. In bureaucratic manner, responsibility is specified in within six categories of duties, namely the obligations to oneself, to the family, to the school class and fellows, to the school, to the community, and to the nation-state. There are then specified in sets of six rules to follow. For example, the duties to the nation-state are: (1) to respect the law, (2) to pay taxes, (3) to assist the officials in maintaining national stability, (4) to be loyal to defending the Nation Religion-King, (5) to preserve national independence, Thai arts and culture, and (6) to let the good of the nation prevail over self-interest (Bunsong, 1991).

The Thai bureaucracy is highly institutionalized with will-established norms and values and designated bureaucratic behavior. Human relationships in the bureaucracy are based upon certain established patterns. Then, a bureaucrat's advancement in the system tends to depend largely on the favoritism; the art of currying favor with one's boss has been developed over the years. When a person is promoted rather rapidly in the bureaucracy, the term normally heard is "liakeng", which literally means "good at licking" a Thai analogy to a domestic pet which learns how to please its master by licking (sucking up)<sup>7</sup>. A generous comment would be "khao chao khao nai kent" (he knows how to smoothly approach his lord and master). Therefore, there is a general impression that the Thai bureaucratic system is plagued with personalized or patron clientelism. Even though it might not completely true, a study of the attitude of a group of 300 public officials who underwent a training course at the National Institute of Development Administration (NIDA) in 1977 supported the fact<sup>8</sup>. From the study, 95 percent of the respondents believed that professional advancements in the bureaucracy depends on a patron-client relationship; 82.7 percent believed that it depends on money, and 93 percent on knowledge and ability.

Aside from the self-contradictory result because almost the same group of respondent's, believed that professional advancement in the bureaucracy depends on the patron-client relationship (95 percent) and knowledge and ability (93 percent), it showed that these two factors were the most important factors in explaining the professional advancement in the Thai's bureaucracy. In essence, this is a combination of favouritism and merits system. This is a wary characteristic. Favouritism should not be viewed as one-way system. It is a patron-client system of "you scratch my back and I scratch yours"<sup>9</sup>, which involves three levels of relationships-for superiors, subordinates and equals. As one writers puts it : "Working in bureaucracy, you must try to gain experience, to understand human relations and to be able to catch up with all the tricks. You cannot just depend on work efficiency but you must also use your knowledge to understand the nature of environment. That is to be able to succeed in a bureaucracy, you must be pulled by your superiors, pushed by your subordinates and supported by your equals (Poovai dueng, poonoidun. Kou samaeokan sanubsanoon)"<sup>10</sup>. Therefore, the art of gaining favor inside the bureaucratic culture is not an easy task. It involves a number of people, techniques and sacrifices in terms of one's principle and self-respect.

<sup>7</sup> ) This kind of a so-called "bureaucratic culture" is also similar to the Indonesia's Civil Services which practiced "Asal Bapak Senang (ABS)" means "as the boss wishes".

<sup>8</sup>) Thinapan Nakata. "Bureaucratic Corruption in Thailand: Incongruities between Legal Codes and Social Norms," Monograph in Public Administration, School of Public Administration, NIDA, Bangkok. April 1997. pp. 31-33.

<sup>9</sup> Ibid, pp. 26-36.

<sup>10</sup>) Kroo Ha (Pseudonym), "Cha Pen Huana (To Be a Boss)" in Warasarn Rachakasn (Civil Service Journal) Vol. IX, No. 2 (B.E. 2507), pp. 21-23.

Another feature of the Thai's bureaucracy is the significant role of the bureaucrats in the administration and politics. These career bureaucrats, especially those in the top echelon, have virtually monopolized political and administrative power, running the routines as well as initiating policy. Thus, the bureaucrats assume administrative as well as political power. Therefore, the feature of the bureaucracy in Thailand can also be described as a "bureaucratic polity"<sup>11</sup>.

The concept of the bureaucratic polity referred both to a particular type of political regime and also to the influence of Thai bureaucratic culture on the mode of governance. Military rules frequently ousted elected governments in Thailand and substituted their own form of rule, co-opting civilian elements as they saw it. The power of bureaucrats stemmed in large part from the reliance of the military on the bureaucrats elite in order to rule effectively. Thus, the bureaucratic polity was one in which bureaucrats were permanent member of the political class. Chai-anan (1987) provides a typical analysis of Thai bureaucratic culture : the bureaucracy was hierarchical by organized in order to reflect differential status and power consideration rather than a national division of labor or chain of command; it gave priority to personnel relations of patron age and dependency, with deference and loyalty being more important than merit, and it emphasized above all else security for its members.

Thai bureaucracy was typified by corruption, factionalism, departmentalism and a tendency to diffuse responsibility for making decisions so as to preserve the status and autonomy of individuals, cliques and departments (Siffin, 1966 : 200-1). Purchase of office was common in the senior ranks (Ockey, 2004 : 148-9). "Money politics" dominated the electoral and parliamentary processes. However, the bureaucracy retained a considerable degree of control over polity as well as administration, because coalition governments were generally weak and indecisive (Bidhya, 2001).

In sum, functional nationality was not the main organizing principle of Thai bureaucratic norms and practices. Nevertheless, there were some parts of the state machinery that developed a reputation for technocratic excellence, such as the National Economic and Social Development Board (NESDB), the Bureau of the Budget (BOB), Office of the Civil Service Commission (OCSC) and the Bank of Thailand (BOT). But even these island an apparent technocrat of reforming zeal were something of a mirage<sup>12</sup>. The influence of political on the bureaucratic culture is still significant. "...because top official wanted to please politicians in order to keep their position secure". (Nukul Commission, 1988 : 169-72).

#### 4. INDONESIA : MORALITY AND CORRUPTION

In countries such as Indonesia where civil servants, like politicians, are key government decision makers, government employees are sometimes viewed as community leaders. In this sense, civil servants may be expected to perform many duties in the community where they live, following practices established during the Dutch colonial era. Such role calls for adherences to norms and morality meaning the civil servants must avoid irregularities and always obey the rules when conducting their activities (Magnis, 1996; Natakusumah, 1990). Therefore, civil servants should not engage in illegal activities such as bribery, corruption and other misconducts.

Friederich (1940) noted growing importance of internal values and moral and professional standards among bureaucrats. In their absence, abuse of power can easily arise in the government sector.

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<sup>11</sup>) The term "bureaucratic polity" was developed by Fred Riggs to describe his model for understanding the Thai political system as he found in the 1900s. See, Fred Riggs : "Thailand : The modernization of a bureaucratic polity"; Honolulu, East-West center press, 1966

<sup>12</sup> From discussion with the faculty members of the Faculty of Economics, Thammasat University, Bangkok, Tuesday, March 25, 2008.

A study by Meir and O'Toole (2006) shows that bureaucratic values are far more important in explaining bureaucratic output and outcomes than political factors. This should be taken to mean that external political control is unimportant, but it does show that paying serious attention to the values of civil servants is important.

Ensuring that civil servants give high priority to honesty, responsibility and integrity with regard to their routine duties can be accomplished through well planned human resource development. Human resource development for civil servants starts with their recruitment and continues until they leave government service. Recruits should undertake job and requirement analyses before undertaking recruitment activities. Furthermore, to allow the civil service to select the best candidates, the recruitment process should be fair and open.

The next step in human resource development for civil servants is education and training. This should be provided regularly for those at every level, as is already done in the armed forces. Considering the importance of trainings, in Indonesia training and education plays a major role in the effort to increase the quality of civil service. However, training and education (pendidikan dan pelatihan - diklat) aims not only at the improvement of job-and work-related skills and knowledge. Forming the attitudinal and behavioral characteristics of civil servants, and ensuring their political allegiance with the programme of the government has always been an integral part of the human resources development programmes of the government.

To complement public sector reform in improving transparent and accountable governance, Indonesia implemented a series of measures designed to combat corruption during the reformation period. The Corruption Eradication Commission (**KPK**) was formed in 2003, five years after the fall of the Suharto's government, to coordinate and supervise anti-corruption efforts, while focusing on eliminating and preventing corruption and conducting a system review. It undertakes this mission on the assumption that a comprehensive, systematic and long term approach is needed to achieve a "corruption-free Indonesia", which must by definition include the holistic participation of all stakeholders. As such, its aim is to become a driver of change in cultivating a culture of anti-corruption in Indonesian society, government, and the business world ( Sunaryadi, 2007).

The KPK is independent from the executive, legislative, and judicial branches and responsible to the general public. It receives funding from the state budget and donors. Its activities include coordination, supervision, investigation, prosecution, prevention, and system review. In terms of staff, it has five commissioners, two advisors, and 600 staff members. These human resources face a population of over 230 million people, around 4 million of whom are public servants, within the many provincial and local governments.

The KPS's duties include supervision and coordination of institutions authorized to eradicate corruption; investigation, indictment, and prosecution of corrupt acts; preventive actions against corrupt acts; and monitoring state governance, and prosecutions against criminal acts of corruption; implement a reporting system for the purposes of eradicating corruption, request information from relevant institutions for the purposes of eradicating corruption; arrange opinion hearings and meetings with institutions authorized to eradicate corruption; and request for reports from relevant institutions pertaining to the prevention of criminal acts of corruption. Law No. 30 of 2002 on the Corruption Eradication Commission provided the basis for the functions, authority, and duties of the institution.

One initial challenge in the fight against corruption related to the way in which it was defined. Over the 1971-2004 period. Laws and regulations tended to address only those types of corruption that represented a direct loss to the state apparatus. As of 2006, a publication called "Memahami Untuk Membasmi" now identifies 30 distinct types of corruption, many of which were previously overlooked. In addition to defining 2 types of corruption representing a loss to the state, other major categories of corruption include 12 types of bribery, 5 types of embezzlement, 6 types of procurement fraud, 1 type of procurement conflicts of interest.

The KPK also faced other other challenges. Its establishment followed a long history of anti-corruption measures, most of which had focused primarily on investigation of existing cases of corruption, rather than on

prevention (see: Table 1). As a result of this lack of emphasis on prevention, many of the lessons learned from early efforts were not applied on an ongoing basis. Consequently, Indonesia found that the same kinds of corruption were equally prevalent over the course of decades. For example, people at similarly high level positions were arrested for comparable offences in the 1950s, 1970s, 1980s, and again in the 2000s. Similarly, the same types of procurement corruption happened in 1983 and 2003. Areas perceived as highly corrupt in the 1970s continued to give the same impressions.

Table 1. **History of key anti-corruption measures in Indonesia, 1957-2007**

1957	Order to fight corruption (Military Commander)
1967	Presidential Decree to fight corruption through prevention and repression (Corruption Eradication Team)
1970	Presidential Decree to access corruption and its solution (Commission of Four)
1977	Presidential instruction to take disciplinary action in operations and administration (Disciplinary Team)
1987	Ministry of Finance order for a special operation on corruption in taxation (Special Re-Audit on Tax Return)
1999	Asset examination and disclosure law for public officials (Public Official Wealth Examiner)
1999	Government regulations to investigate complex corruption (Corruption Eradication Joint Team)
2003	KPK established
2005 - 2007	Timtas Corruption Eradication Coordination (Attorney General. Police. Auditor)

**Source : Author's compilation from various sources.**

To address this situation, the KPK has aimed to use an integrated programme implementation approach, which includes capacity development, prevention, repression of corruption, and public involvement and participation. This entailed a shift in focus for programmes to combat corruption. The KPK placed attention on the issue of bribery, catching “big fishes”, winning public trust, using court video recordings, bureaucratic reform, and integrating investigation and prevention measures. These polices have resulted in many highly publicized cases where senior officials were caught “red-handed” on videotape in the process of conducting an illegal act. At the same time, court video recording helped to increase transparency and public awareness of court procedures and decisions. Between 2007 and 2010, significant anti-corruption reforms were completed to increase legal certainty, reduce budget leakages, increase investment, and increase state revenues. The ongoing commitment to anti-corruption is expected to gradually increase citizen trust in government, while additionally improving investor confidence.

## 5. FINAL REMARKS.

Civil Service Reform as parts of the bureaucratic reform should be designed to reduce corruption. If officials are paid much less than those with similar training elsewhere in the economy, only those willing to accept bribes will be attracted to the public sector. The rest will work in private enterprises. But in spite of the low pay, positions in the state bureaucracy can be valuable assets. In some developing countries there is a lively market for bureaucratic positions that generate large bribes. Positions in corrupt police departments are likely to be especially valuable (Phongpaicht and Piriyarangsan, 1994). Civil service wages should be set equivalent to the wages of those in similar positions within the private sector so as to enable service without corruption and misconducts.

Bureaucratic reform is expensive and politically difficult, and it may seem beyond the capacity of many poor countries. Yet it cannot be avoided in any credible reform effort. Therefore, structural and administrative

reforms which have been introduced in most developing countries should be directed to free the civil service from politics and the civil servants from political pressure. This is the primary reason for the merit-based civil service reforms in which entry into the service is qualification-based determined, among others, by competitive examinations and promotions to higher positions are based on performance, competence and other meritbased standards and not on connections.

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# KNOWLEDGE ON POTENTIAL OF ISLAMIC REITS IN MALAYSIA

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## Abstract

Islamic Capital Market in Malaysia known as top five in the world nowadays. Real Estate Investment Trusts (REITs) long establish in Malaysia in the form of Property Trust Fund (PTF). Real Estate Investment Trust have been successful in many countries like United States and Australia. So the emergence of Islamic Real Estate Investment Trusts should be look as a good potential in form of brand new property investment vehicles because of the two advantages stated. Islamic Real Estate Investment Trusts have been establish first in the world by the establishment of Al-Aqar KPJ REIT on 28 June 2006. However, Singapore's Sabana Shariah Compliant REIT (Islamic REITs) have led in terms market capitalization and earnings. Thus, the success of Sabana Shariah Compliant REIT led to the actual potential of Islamic REITs. This paper attempts to review the potential of Islamic Real Estate Investment Trusts in Malaysia.

**Keywords:** Islamic Capital Market, Islamic REITs, property investment

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## 1. Introduction

Islamic REITs provide a new investment opportunity for investors who wish to invest in real estate through Shariah compliant capital market instruments. Islamic REIT provides exposure to Shariah compliant commercial properties.

Investment in Islamic REITs provide a great opportunity for investors to acquire an interest in high-grade Shariah compliant real estate which is very difficult for investors to hang retailers (Hwa, 2007).

The world's first Islamic REITs have been established in Malaysia. From this establishment it will encourage more investors and issuers to explore market opportunities alleged Islamic REITs was recently introduced. Islamic REITs have limited in ensuring that the products and services they always comply with Shariah (Dusuki, 2008).

## 2. Islamic Capital Market In Malaysia

In 2013, Malaysia has won the award Best Fund Domicile of Choice. Islamic finance in Malaysia's sukuk listed among the five best in the world with a total of USD 21.4 billion. Whereas in the first place is a London Stock Exchange listed sukuk, which has the largest amount of USD 24.2 billion while the Irish Stock Exchange topped both the number listed sukuk of USD 21.9 billion (Dimitrov, 2014).

In the fourth place, NASDAQ Dubai has a number of listed sukuk of USD 21.3 billion. While Dubai Financial Market was ranked fifth with a total sukuk listed by USD 15.8 billion. Total sukuk was USD 104.6 billion (Dimitrov, 2014).

Features of Islamic Finance is very clear and significant compared with conventional finance. One feature that clearly is Islamic financing shall comply with all laws based on Shariah. Any form of business and financial activities related to the problem 'Haram' is strictly prohibited example; liquor, pork, and pornography (Hanif, 2011; Osmadi, 2007).

Islamic finance is not allowed to produce benefits for the purpose of making a profit. The risks faced by same customer will also be felt by the Islamic financial institutions and this is a contrived to reveal the goodness

Islamic finance is based on the claim Shariah but who do not want oppression happens to those who needed financial related services (Hanif, 2011).

### 3. Malaysia Real Estate Investment Trusts

REIT by market capitalization in the Asia Pacific region. Australia topped with USD 85.15 billion, Japan has USD72.46 billion, Singapore has USD45.47 billion, Hong Kong has a USD 23.80 billion, Malaysia has USD6.77 billion and the last New Zealand has USD 2.92 billion (Atchison & S Yeung, 2014).

However, based on the percentage of REITs in the real estate market of each country. Singapore topped by 19 percent. Australia also outperformed by 13 percent. Hong Kong with 11 percent, with eight percent Malaysia, New Zealand with four percent, while Japan is only three percent (Atchison & S Yeung, 2014).

Institutional Real Estate Size monopolized by Japan USD 2678 billion, Australia with USD 656 billion, Singapore with USD 241 billion. Hong Kong with USD 211 billion. Malaysia with USD 84 billion, while New Zealand has only Institutional Real Estate Size of USD 73 billion (Atchison & S Yeung, 2014).

Table 1 indicates that Malaysia has a high market transparency compared with countries such as Taiwan, Thailand, the Philippines, Indonesia, South Korea, Vietnam, Macau, Mongolia and Myanmar (Jones Lang Lasalle, 2014).

Table 1 Real Estate Transparency In Asia Pacific

Real Estate Transparency in Asia Pacific, 2014			
Country	Transparency	Composite Score	
		Score 2012	Score 2014
Australia	Highly Transparent	1.36	1.4
New Zealand	Highly Transparent	1.48	1.4
Singapore	Transparent	1.85	1.8
Hong Kong	Transparent	1.76	1.9
Japan	Transparent	2.39	2.2
<b>Malaysia</b>	<b>Transparent</b>	<b>2.32</b>	<b>2.3</b>
Taiwan	Semi-Transparent	2.6	2.6
Thailand	Semi-Transparent	2.94	2.8
Philippines	Semi-Transparent	2.86	2.8
Indonesia	Semi-Transparent	2.92	2.8
South Korea	Semi-Transparent	2.96	2.9
Vietnam	Low Transparency	3.76	3.6
Macau	Low Transparency	3.27	3.6
Mongolia	Opaque	4.31	4.5
Myanmar	Opaque	NA	4.5

Source: Jones Lang Lasalle (2014)

The table 2 shows the composition of Real Estate in Asia Pacific countries. Countries with the highest percentage was Japan with 37.4 percent of the total sector Real Estate in Asia Pacific. China is the second largest with a percentage of 26 percent. Malaysia has only 1.2 of a percentage of the real estate portfolio in Asia Pacific. If linked between Gross Domestic Product (GDP) by sector in Malaysia Real Estate, Real Estate sector has a relatively large share in Malaysia. While the Philippines and Vietnam country occupies the last place with a share of 0.7 and 0.2.

Table 2 Global Universe of Real Estate Market 2011 (Asia Pacific)

Global Universe Of Real Estate Market 2011 (Asia Pacific)						
Country	Population(M)	GDP (US\$B)	GDP per Capita (US\$)	Real Estate (US\$B)	Real Estate Percentage	Real Estate To GDP Percentage
Japan	126.5	5951	47060	2678	37.4	45
China	1320	7035	5330	1864	26	26
Australia	22.5	1458	64720	656	9.2	45
South Korea	49.6	1098	22110	467	6.5	42
India	1202	1963	1630	350	4.9	18
Singapore	5.2	268	51500	241	3.4	90
Hong Kong	7.1	234	32870	211	2.9	90
Taiwan	23.2	477	20510	198	2.8	42
Indonesia	245.6	831	3380	189	2.6	23
Thailand	68.2	344	5040	89	1.2	26
<b>Malaysia</b>	<b>28.6</b>	<b>265</b>	<b>9260</b>	<b>84</b>	<b>1.2</b>	<b>32</b>
New Zealand	4.4	163	36800	73	1	45
Philippines	101.8	237	2330	48	0.7	20
Vietnam	88.7	123	1390	21	0.2	17
<b>Total</b>	<b>3293.4</b>	<b>20447</b>	<b>303930</b>	<b>7169</b>	<b>100</b>	

Source : Author's Compilation & Prudential Real Estate Investors (2012)

#### 4. Potential Of Islamic Real Estate Investment Trusts in Malaysia

Malaysia has lead in Sukuk Volume by Issuer Nation in USD 20.6 billion compared to United Arab Emirates (UAE) and Saudi Arabia in USD 8.8 billion and USD 7.0 billion. While Malaysia has top sukuk volume by currency which is Malaysian Ringgit lead by USD 21.7 billion compared to US Dollar by USD 21.2 billion. Malaysia is one of the world's most advanced Islamic Markets but showing only three Islamic Reits out of 16 REITs in Malaysia (Tay, 2013).

Islamic REITs is a collective investment scheme that combines real estate and real estate trust funds. In November 2005, the Government of Malaysia through the Securities Commission has issued the guidelines for Islamic REITs, and make Malaysia is the only country that makes the world of Islamic REITs based on national law (MIFC, 2013).

There are several numbers of Islamic REITs in Malaysia which has its attractions such as the type of property that is invested, structure, board of directors, and the principles of the company itself. Islamic REITs companies that have been registered with the Securities Commission in Malaysia such as Axis, Al-Aqar, new established Stapled Kuala Lumpur City Centre (KLCC) REIT while Bousted REIT has changed to Private Property Trusts instead of Islamic REITs by this year.

Instead of large Islamic Capital Market in Malaysia but there are only about three Islamic REITs in Malaysia and yet only two out of three considered mature. Thus, the opportunity must be grab by the property investor to



involve in Islamic Real Estate Investment Trusts to enhance the potential and generate some profit from this investment.

As overall, from the AXIS REIT Annual Report and AL-AQAR Healthcare REIT Annual Report that there are increment from year to year from both Islamic REITs financial statement. From Table 3 the total net income for Al-Aqar REIT is a bit fluctuated but the net asset value per unit, distribution per unit and market capitalisation are increasing. This is a good sign that Al-Aqar REIT are doing well. The same case as Axis REIT, refer to the table 4, the market capitalisation for Axis REIT is a bit fluctuated but the net asset value per unit, distribution per unit and total net income are increasing year by year. This shown that, both management are very commitment to continue the growth and expand the Islamic REITs into a better investment vehicles.

The table below give a financial highlights on two Islamic REITs in Malaysia:

Table 3: Al-Aqar REIT

Al-Aqar REIT	Year		
	2011	2012	2013
Total Net Income (RM 000')	84,502	62,527	73,726
Net Asset Value Per Unit (RM)	1.13	1.15	1.17
Distribution per unit (Sen)	7.69	7.8	7.85
Market Capitalisation (RM 000')	735,523	898,132	925,981

Source: Al-Aqar REIT Annual Report

Table 4 Axis REIT

AXIS REIT	Year		
	2011	2012	2013
Total Net Income (RM 000')	81,051	103,116	110,899
Net Asset Value Per Unit (RM)	2.08	2.17	2.23
Distribution per unit (Sen)	17.2	18.6	18.42
Market Capitalisation (RM 000')	1,118,993	989,705	RM 1,348,418

Source: Axis REIT Annual Report

In 2013, AXIS REIT Annual Report 2013 has been use USD. Author convert it with amount of RM1 = USD 0.30451 as in 31 December 2013.

Contrast to Malaysia Islamic REITs, as reveal by Sabana Shariah Compliant REIT (2013) the neighbour, Singapore's Sabana Shariah Compliant REIT continued to be the largest listed Shariah Compliant REIT in the world in term of market capitalisation and total asset size of approximately S\$746.0 million and S\$1.2 billion respectively as at 31 December 2013. Thus, it shows that eventhough Sabana Shariah Compliant REIT only starts it operation on 26 November 2010, they can still prove that they could lead in the development of Islamic REIT in the world rather than other listed Islamic REIT company that have been longer establish than them.

### 5. Advantages Of Islamic REITs

Each investment vehicle could give advantages and some fortune for the investors to make their decision making. Including Islamic REITs it is also advantages in certain ways that we could never be imagine.

Based on research that has been conducted by Newell & Osmadi (2009) the Islamic REITs out perform the Conventional REITs in term of average annual return which are (-5.31% and -16.21%). While the annual risk of Islamic REITs before the GFC and during the GFC, the Islamic REITs also could reduce the risk from 14.22% to 13.41%. The Islamic REITs give best risk-adjusted return among all asset class that have been test in the research which are -0.40 compare to Overall M-REITs (-1.63), Conventional M-REITs (-1.72), KLCI (-1.05), KLSE (property) (-1.05), KLSE (plantation) (-0.48) and KLSE (finance) (-0.94). From this study it is clear that Islamic REITs in Malaysia could handle tough situation like GFC.

It is also state that the main catalyst for the adoption of Islamic REITs as an essential vehicle for listed property exposure in other countries is the continued significant growth of Islamic finance and the continued development of advanced Shariah-compliant product. In Malaysia, Islamic finance and capital market is one of the top product that outperform the Gulf countries and USA. The growth of Islamic REITs will lead to the growth of the Malaysia Islamic Financial System (Newell & Osmadi, 2009).

Another advantages of Islamic REITs are it can attract the investors through low correlation with common stocks and as a potential hedge against inflation, high dividend yields and higher certainty of income. Islamic REITs also have unique characterisic due to the investment are predominantly in income-producing Shariah compliant real estate and or single purpose companies whose principal assets comprise Shariah compliant real estate (Saeed, 2011).

## 6. Conclusion

This paper has point out some oppurtunity for the investor or any institution to grab this potential investment vehicle because the Islamic Real Estate Investment Trust is an investment that could be a hedge against inflation and during GFC the average annual return, the annual risk and risk-adjusted return from Islamic Real Estate Investment Trusts quite outperform rather than Conventional Real Estate Investment Trusts. Government also could enhance the tax tranparency of Islamic REITs to attract more investor to involve in Islamic REITs. Sabana Islamic REITs also could be set as a good example in terms of strategic investment and management structure. Thus, the potential must be turn into a good oppurtunity to generate profitable income and expand the Islamic REITs across the state in Malaysia.

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# Accuracy of Herzberg and Quarstein's Theory to Predict Employee Satisfaction. Case Study: SBM ITB

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## Abstract

**Purpose** – This study purpose to prove which theory is right between Herzberg and Quarstein's theory. Herzberg trust that only motivator factors that affect to satisfaction, otherwise Quarstein trust that hygiene factors could also features to satisfaction.

**Design/methodology/approach** – The research is use a quantitative research with questionnaire that delivered to School of Business Management in Institute of Technology of Bandung. The respondents were asked about the most dominant factors to affect their satisfaction and dissatisfaction

**Findings** – Herzberg theory is proven not right as the result shows the dominant factors that affect satisfaction is the hygiene factors, not the motivator factors. Employees consider more about the hygiene factor than motivator factor to feel satisfy. The dominant factors that affect dissatisfaction is also hygiene factor, which is already told in Herzberg's theory.

**Keywords** – Employee, Employee Satisfaction

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## 1. Introduction

Frederick Herzberg's two-factor theory (or motivation-hygiene theory) has been one of the most influential theories about job satisfaction ever since it was introduced in 1959. The theory builds on Abraham Maslow's hierarchy of needs, published in 1943, which posits that humans must first fulfil basic needs (specifically physiological and safety needs) before moving on to more advanced needs (belonging, esteem, and selfactualization, in that order)

Herzberg believed that employees were not wholly satisfied with fundamental work compensations, such as pay, benefits, and comfortable working conditions, which fall under the category of safety needs in Maslow's hierarchy. Instead, employees seek achievement, recognition, growth, creativity, and more, factors which fall under esteem and self-actualization needs.

From this basis, Herzberg theorized that there were two factors of employee satisfaction or dissatisfaction, motivators and hygiene. Motivators are factors of the job itself, such as challenge, responsibility, along with other esteem and self-actualization needs that have been previously discussed. These factors produce true motivation among employees. Hygiene factors, on the other hand, are factors that are not related to the job itself, such as job security, good relationships with coworkers, and other safety needs. The presence of these factors cannot produce motivation in itself, but the absence of these factors will lead to dissatisfaction.

In contrast to Herzberg's theory, Quarstein's situational occurrences theory proposes that job satisfaction is a function of situational occurrences and situational characteristics and that any given factor, e.g. pay or recognition, can result in either job satisfaction or dissatisfaction." Situational occurrences can include either positive experiences, such as coffee/tea breaks, or negative ones, such as insufficient paper towels in rest rooms. Situational characteristics, on the other hand, include stable factors such as pay and working conditions (Oshagbemi 1997).

In Oshagbemi's 1997 study, it was shown that Quarstein's situational occurrences theory was better at explaining job satisfaction than Herzberg's two-factor theory. In this study, we will try to replicate the study at SBM ITB in order to see if the results hold true in a different place, culture, and setting.

## 2. Research methodology

The method that applied in this study is quantitative research by using questionnaire. In research and methodology, the specification about the question and sample/respondents will be explained.

### 2. 1.Questionnaire and analysis

To know about job satisfaction in School of Business and Management in Bandung Institute of Technology, there are some factors needed. The factors are essential because it is the factors that affect job satisfaction and dissatisfaction. The most important factors will be known so the company can which factor should be changed to make higher the satisfaction rate among employees. These are the factors:

- Training
- Research
- Administration and management
- Salary
- Career path
- Supervisor behavior
- Co-workers behavior
- Physical/Facilities conditions

The questionnaire will be conducted with likert scale. Likert scale is used to make priority scale to identify level of satisfaction. The scale is stars from 1 to 7, which means 1—“Extremely Dissatisfied”, 2—“Very Dissatisfied”, 3—“Dissatisfied”, 4—“Indifferent”, 5—“Satisfied”, 6—“Very Satisfied”, 7—“Extremely Satisfied”. The range between the scales is equally shared. Those factors mentioned above are consistent with findings on the measurement of job satisfaction (Giles and Field, 1978; Kulik et al., 1980; Loher and Nore, 1985; Oshagbemi, 1995, 1996; Scarpello and Campbell, 1983’ Schneider and Dachler, 1978; Wanous and Lawler, 1972). Moreover, the factors are almost the same with that of the popular Job Descriptive Index (Smith et al., 1969) that produce highly trusted results (see for example, Imparato, 1972).

### 2. 2.Sample

The research via questionnaire was delivered to employee in School of Business and Management in Bandung Institute of Technology in 2014. This business and management faculty was made in 2004. According to SWA and MARS magazine in 2009, this faculty is on top of the rank among the competitors. This fact indicates that this faculty is great and there will be a good foundation behind their greatness, which means the management team. The amount of respondents who used for the sample is 17 of employees in SBM.

### 2. 3.Parameters

**Teaching** - Factors that go under teaching include how satisfied or dissatisfied employees were with the quality of teaching conducted at SBM-ITB. More specifically, it details the degree to which employees believed their work contributed to the fulfilment of a great education system at SBM-ITB. Their belief towards their work's contributions to the fulfilment of a great education system positively correlated with their belief that they played an important role in student's lives and helping them grow, thus improving Indonesia by aiding in the development of home grown talent.

**Administration and management** - Factors that go under administration include employee attitudes towards how competent management was in leading day-to-day operations, handling employee comments and complaints, and managing conflict. It also measured employee attitudes towards the effectiveness of administration systems, such as the maintaining an efficient and organized flow of information.

**Salary** - This category measures how satisfied or dissatisfied employees were with the amount of monthly income they receive for their work.

**Promotions** - This category measures how satisfied or dissatisfied employees were with their opportunities for job advancement in relation to position and salary increases.

**Supervisor behaviour** - This category measures how satisfied or dissatisfied employees were with how their supervisors treated them and fellow employees.

**Co-worker behaviour** - This category measures how satisfied or dissatisfied employees were with how their coworkers treated them and fellow employees.

**Physical/Facilities condition** - This category measures how satisfied or dissatisfied employees were with the physical amenities provided by their workplace, including but not limited to air conditioning, beverages, food, furniture, computers, software, toilets, prayer spaces and more.

**Work environment** - This category measures how satisfied or dissatisfied employees were with their relationship towards other employees and managers, workload, deadlines, sick days and vacation days, the strictness or leniency of management policy, and more.

### 3. Background of Respondents

There are demographic questions, which conducted in the questionnaire, including age, rank, sex, length of service in higher education, and area of academic discipline (Oshagbemi, 1996, pp. 392-4)

Age	Percentage of Respondents
26-30	29
31-35	47
36-40	6
Above 40	18

Gender	Percentage of Respondents
Male	41
Female	59

Years	Percentage of Respondents
1-3 years	12
4-6 years	12
7-9 years	53
Above 9 years	24

Category	Percentage of Occurrence
Teaching	18
Administration Management	6
Salary	18
Promotions	6
Supervisor behavior	12
Co-workers behavior	29
Physical/Facilities condition	6
Work environment	6

Category	Percentage of Occurrence
Teaching	6
Administration Management	47
Salary	24
Promotions	12
Supervisor behavior	0
Co-workers behavior	6
Physical/Facilities condition	6
Work environment	0

#### 4. Factors that contribute to satisfaction

The table gives the percentage of each factor that made an impact on satisfaction of the respondents. The results shows that the dominant factor of employee satisfaction is co-workers satisfaction, followed by salary and teaching, both have 18 per cent each as the second dominant factor. Those three factors accumulated for about 65 percent, more than a half per cent of employee satisfaction are from co-workers, salary and teaching factors. As written in the factor's parameters, it means that the relationship between employee to other employee may consider as an important role. When employee easily gathers with others because there is a small gap between them, it would make them closer to each other. The behaviors delivered by each employee make other employee feel the warmth of it. The relationship between employee grow stronger as they spend good and bad things together, spend their free time together, helping each other to settle, to struggle, and to become a better employee in the future. That kind of relationship is really matters to satisfy the employee. The result is contrast with Herzberg theory, which said "The presence of these factors motivators and hygiene cannot produce motivation in itself, but the absence of these factors will lead to dissatisfaction". From the result, one of hygiene factors; co-workers relationship, also affects employee satisfaction. And from the questionnaire, the respondents felt that the relationship between employee to employee are pretty good and shows that the connection between them would have a major role for their satisfaction.

The second factor that affect employee satisfaction is salary and teaching with 18 per cent for each. Salary becomes the second matters to employee satisfaction and employee tends to get a match amount to meet their needs. There is 18 per cent of the respondents thought that satisfying job needs a satisfying salary. Employee needs to be paid in the right amount and accordance with their work. This result also controverts Herzberg theory, which says "that employees were not wholly satisfied with fundamental work compensations". Work compensations surely matters, according to the results, and surely affect employee satisfaction too. From the result, the respondents have an enough salary to satisfy themselves and fulfill their needs.

The other second factor is teaching. Teaching may have an important role for the employee. As this case is talks about employee in a company that provides a teaching system for study program, the teaching is related to the system that applied in the company. The teaching system is includes to the motivators in Herzberg theory. After 2 factors before, Herzberg theory was considered in contrast with the results. But, not for this one. Herzberg theory said, "The motivators factors produce true motivation among employees" and it match with the result. The teaching system is important to make the employee more enthusiasts to their work and feels that their work is to help the company in developing a teaching system. According to the result, the teaching system in SBM makes the employee trust that they will make an impact on the quality of the teaching system itself. It satisfies them to have a huge role in making competitive students.

The next factors affect employee satisfaction is supervisor behavior with 12 per cent. The result reflects that supervisor behavior not playing the important role in satisfying employee. Supervisor behavior is a hygiene factors. And by knowing that this factor not highly affects employee satisfaction, Herzberg theory is right once again. The results also indicate that the supervisor in SBM-ITB is not delivering a good approach, thus not make a proper relationship to make a good contact with the employees.

And the least dominant factors in employee satisfaction is administration and management; promotions; physical/facilities condition; and work environment with 6 per cent each. This may conclude that there are no significant roles from those factors to affect the employee satisfaction in SBM-ITB, similar as Herzberg theory. A comparison between the Herzberg's two-factor theory and the results above will summarizes all. The highest dominant factors to employee satisfaction are co-workers behavior, which is hygiene according to Herzberg theory.

The theory said that hygiene is not an important role for employee satisfaction, different with motivators that can produce true motivation to the employee. But, the theory is proven wrong by the first two factors based on the results. The first two factors is co-workers behavior and salary, both are hygiene factors. This fact proves

that not only the motivator factors but also the hygiene factors can affect employee satisfaction. The third dominant factor is teaching, which is motivators and this prove Herzberg's theory not fully wrong.

### 5. Factors which contribute to dissatisfaction

47 percent of employees reported that administration and management was the biggest factor of dissatisfaction. Aspects of administration and management included employee attitudes towards how competent management was in leading day-to-day operations, handling employee comments and complaints, and managing conflict. It also measured employee attitudes towards the effectiveness of administration systems, such as the maintenance of an efficient and organized flow of information. The fact that 47 percent of employees reported being dissatisfied with administration and management may indicate that employees view administrators and managers as lacking competence. An examination of respondents' questionnaires reveals that many workers felt that administrators were not open to employee comments and complaints, and did not manage conflict as well as would be preferred.

The second biggest factor of dissatisfaction was salary. 24% of all employees reported that they were dissatisfied with salary. This means that nearly a quarter of all employees believed that SBM-ITB did not offer enough financial compensation for the work they provided. However, 53% of employees have worked at SBM-ITB between 7 to 9 years. This may indicate that while they prefer higher incomes, SBM-ITB actually provides better financial compensation than competitors. Thus, this may merely reflect an unjustified complaint on the part of employees.

To further illustrate this point, salary was also the second biggest factor of job satisfaction. 18% of job employees reported that they were satisfied with salary. That's the same percentage of people that reported being satisfied with teaching, a factor of the job itself. Thus, we may rightly assume that SBM-ITB provides at as much financial compensation as competitors, and that reports of dissatisfaction among employees may merely reflect personal attitude rather than economic reality.

12 percent of employees reported being dissatisfied with promotions. This may reflect some truth because only 6 percent of employees reported being satisfied with promotions. This may indicate that there are not many opportunities for job advancement and salary increases at SBM-ITB. However, this may be justified, given the employees' position as administrative workers.

### 6. Conclusion

This study is about to prove whether Herzberg or Quarstein's theory is right about employee satisfaction. Herzberg with his two-factor theory; motivators and hygiene, trust that motivators can be a true motivation for employee satisfaction, rather than hygiene factors. Otherwise, Quarstein trust that both motivators and hygiene can lead to employee satisfaction. In this study, both theory is tested by doing a research to one of the finest faculty in Indonesia; SBM ITB.

The result shown that there is a difference between the dominant factors that affect satisfaction and dissatisfaction. From the results of dominant factors that contribute in employee satisfaction, it found a comparison between the Herzberg's two-factor theory and the results. The highest and second highest dominant factors to employee satisfaction are co-workers behavior and salary, both are categorized hygiene factors in Herzberg's theory. His theory is proven wrong by the first two factors based on the results. But the third highest dominant factors of employee satisfaction based on the result is teaching, which is categorized as motivator factor in Herzberg's theory. The fact proves that not only the motivator factors but also the hygiene factors can affect employee satisfaction.



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At first glance, a view at the highest factors for dissatisfaction may lead one to support Herzberg's two-factor theory, since the theory predicts that administration, salary, and promotions all fall under hygiene factors, and thus may lead to dissatisfaction. On the other hand, a look into the factors of satisfaction may indicate otherwise. While it is true that teaching, a factor of the job itself, rated highly as a factor of satisfaction, co-worker behavior was the biggest factor overall. 29 percent of employees believed co-worker behavior was the biggest factor of job satisfaction. This does not support Herzberg's theory that factors of the job itself, in this case teaching, should be the biggest factor of job satisfaction. Salary was also tied with teaching as the second biggest factor of jobsatisfaction. This seems to support Quarstein's situational occurrences theory that "job satisfaction is a function of situational occurrences and situational characteristics and that any given factor, e.g. pay or recognition, can result in either job satisfaction or dissatisfaction." In this scenario, having positive relationships with co-workers proved to be a bigger factor of job satisfaction than the job itself, i.e. teaching.

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# Innovative Instructional Leadership in Technical and Vocational Education: Application of Modified Delphi Technique

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## Abstract

The purpose of this paper is to seek validation of an expert consensus on the needs of instruments about 'Innovative Instructional Leadership'. The needs of this instrument are to improve the professionalism of administrators on the context of technical and vocational education. Validation was done by 11 experts who have the expertise, experience and knowledge in the areas studied through all the items in the instrument developed. This paper provides examples in order to get the interquartile range using the Modified Delphi technique.

*Keywords:* Modified Delphi Technique; Innovative; Instructional leadership; Technical and Vocational Education

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## 1. Introduction

Modified Delphi technique or Modified Delphi Method (MDM) is a technique that was introduced (Linstone & Turoff, 1975). This technique is a procedure to find consensus among the experts using the questionnaire without conveying a meeting (Skulmoski, Hartman, & Krahn, 2007). This technique was applied in this study through interviews in the first round and then distribute the questionnaire to obtain the high consensus among experts.

This article also attempts to highlight the MDM application to a study conducted by the authors involves several phases of the study. However, this article only describes a single phase, which has been using MDM as a procedure to analyze the findings. This study is to obtain expert consensus on items related to 'Innovative Instructional Leadership' has been implemented by a group of experts in connection with the field of study.

'Innovative Instructional Leadership' is a leadership style that was developed based on instructional leadership style and adapted with innovative elements in making the leadership style of administrators in educational institutions not only focus on teaching and learning, but also the thinking, planning and capable of doing things innovative.

Instructional leadership alone is not sufficient (Robinson, 2010) it has to be accommodated with other elements such as technology, human capital innovation (Mielcarek, 2003). As an administrator in educational institutions, the administrator must have the professionalism and credibility not only based solely on teaching and learning, but it should be viewed from various aspects holistically.

## 2. Problem Statement

Education administrators must have extensive credibility not only in teaching and learning (Pansiri, 2008). Accordingly, the various aspects that need to be investigated to realize these wishes. Through these shortcomings, the researchers have taken the necessary steps to develop items of this innovative instructional leadership in the context of educational institutions studied.

Items that are developed are applied with innovative elements to suit the current climate of learning institutions that emphasize innovation and technology in teaching and learning. According to (Crawford, 2009) that as leaders, we must have innovative features in expanding our areas of expertise. Thus, researchers have incorporated innovative elements into the development of this innovative instructional leadership instruments.

Each administrator should be evaluated the effectiveness of the administration so that administrators are not careless and negligent with their own leadership style. This is also supported by (Cowan, 2010) where administrators need to be more sensitive to the changing times from time to time. Hence, researchers are hoping that this instrument can be used by certain parties in measuring and assessing the effectiveness of administrators, particularly in educational institutions.

## 3. Objectives of the study

The purpose of this paper is to validate the needs for 'Innovative Instructional Leadership' for the professionalism of administrators in educational institutions. Validation was done by experts in each round of questionnaires to obtain items that have a high consensus among the experts using the Modified Delphi technique. These requirements are discussed with the analysis in two main aspects, namely set the vision and mission and provide the needs and recognition.

## 4. Methodology of the study

The research conducted using the Modified Delphi technique for the purpose of obtaining expert consensus on the item for 'Innovative Instructional Leadership' were developed based on the previous findings of Phase I. In the first phase, the study made by performing a need analysis for the administrator of the 'Innovative Instructional Leadership', which involves the analysis of the needs of every expert who has been appointed. This paper does not discuss the preliminary findings of the first phase, but only focuses on the results of the first phase by using a Modified Delphi technique analysis.

Respondent of the study involving 11 experts which consists of lecturers from the field of leadership in Public Higher Education Institutions and leaders in top management in the TVE management. Each panel is appointed expert in the field of education, leadership and administrative management. The instrument used was a set of questionnaire consisting of 95 items, which were distributed to the experts. These items were developed based on the findings of the Phase I study need to be confirmed by the experts to get the consensus of experts.

To implement the Modified Delphi technique in this study, the researchers must determine and prioritize the items produced through Phase I findings in the form and can be controlled by the panel of experts. After that, the researcher specifies a group of experts who have agreed to contribute their expertise in expressing ideas, criticize and improve the content item that has been determined by the researchers. The researcher contacted experts in advance to confirm their consent to be an expert of several rounds until a consensus is reached for the item. After all experts expressed their agreement, a letter of appointment from the university made and handed over either by hand, fax, postal or electronic mail.

Several rounds of questionnaires were distributed to all experts. In the first round, experts interviewed for the stated items agreed upon verbally. Data were analyzed using qualitative software, ATLAS.ti. Then, in the second round, the experts were asked to state level of agreement for each item, whether Strongly Agree, Agree, Less Agree, Disagree and Strongly Disagree. Once all the experts have indicated their level of agreement, the

second round provides an opportunity for experts to give their views on each item. Data derived from the Likert Scale is then translated into a number of Quartile and analyzed using Microsoft Excel.

The data from the study Likert Scale obtained in the second round to be translated into numbers of Modified data and analyzed using Excel software. The data analysis technique known as Modified Delphi technique or Modified Delphi Method (MDM). Comments and suggestions of experts were also considered to improve the item related to leadership.

### 5. Collecting and Analyzing Data of Modified Delphi Technique

There are two important aspects of the Modified Delphi technique, namely the Interquartile Range (IQR) and the process of getting percentile value. Interquartile Range compiled with the Q1, Q2 and Q3 and it is usually shown in the form of (Q3-Q1). Value of Q1 represents the first percentile and the Q3 represents the third percentile. IQR used to generate scale Modified for translating linguistic variables into numbers Modified. Number of stages or levels of consensus for scale Modified is the number of 0, 1 and 2. The interquartile range of 0 to 1 indicates a high consensus. It is as indicated in Figure 1.

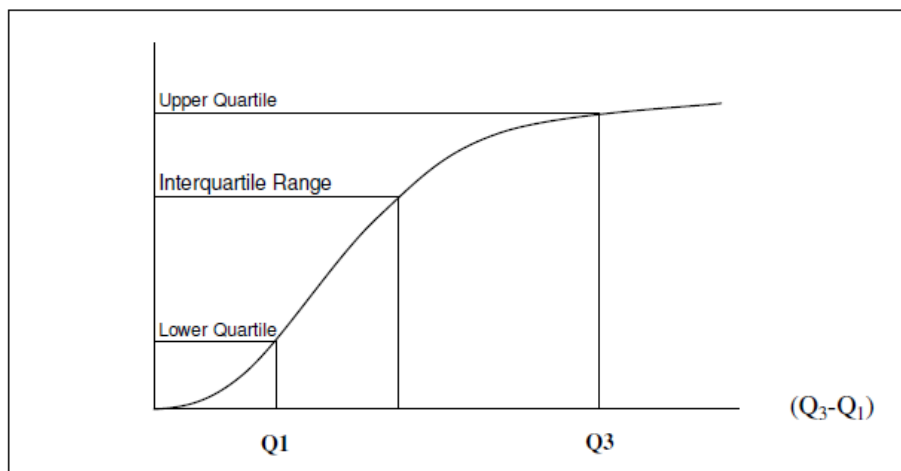


Figure 1. Level of consensus for the Modified scale

In this study, the process of collecting and analyzing Modified Delphi technique was carried out through the three rounds. Second, third and the fourth round and subsequent conducted up to reach a consensus among experts. In each round, each expert was given item and the side of each item displayed by Likert scale as well as blank spaces for description, comments and suggestions of experts.

In the second round, data were analyzed using an Excel program for a neater kind of schedule. All data transmitted in the form of IQR. There is an example of the scale Modified, namely Modified three point scale. It is stated in Table 1.

Table 1. Modified three-point scale

Level of Consensus	Modified Scale
High Consensus	0 until 1
Medium Consensus	1.01 until 1.99
No Consensus	2.0 above

Source: (Peck & Devore, 2011)

Table 1 shows that the fewer the number on the scale, the more consensus data that can be obtained. In this study, the researcher chose a five-point scale of linguistic as shown in Table 2.

Table 2. Modified Scale of Study

Modified Scale	Level of Consensus	Result
0	High Consensus	Accepted
1	High Consensus	Accepted
2	No Consensus	Rejected
1	High Consensus	Accepted

For the purpose of obtaining a consensus of experts for each item, the IQR should not exceed 2.0 and above. To get the IQR value, the distance between the percentile 1 and percentile 3 was determined by using the following formula:

$$Q_i = \left[ i \left( \frac{n+1}{4} \right) \right]^{th}$$

Figure 2. Formula for determination of percentile distance between two points quartile

$$IQR = Q_3 - Q_1$$

Figure 3. Formula for calculating the interquartile range

Based on the formula in Figure 2, the value of 'i' is a percentile value. In the case of Figure 3, the percentile used is Q1 and Q3. This value gives the interquartile range in identifying the level of consensus among experts.

## 6. Rationality of Modified Delphi Technique

The rationale for the use of this technique compared to other techniques is consensus in seeking expert opinions on an item without convening a meeting and the identity of each selected experts kept secret to give them the freedom to provide suggestions and marking scale of Modified distributed by their personal opinion.

## 7. Getting example, in the Modified Delphi Expert Consensus on the needs Aspects related to 'Innovative Instructional Leadership'

### 7.1 Example 1

Table 3. Items for 'Setting the Vision and Mission'

Item	
A1	Developing goals for the entire institution refers to the generation of human capital required by the state based on the needs of NKEA
A2	Formulating goals in terms of responsibility in meeting the needs of staff and the institution
A3	Developing goals that are easily understood by the lecturers in the institutions involved
A4	Spread the vision and mission that have been designated by Malaysian Ministry of Education to be understood and known by the staff of the institution
A5	Using the results of student achievement in relation to the CLO and PLO to make improvements to the program and goals of the institution

Table 4. Interquartile range values for each round of expert consensus for the items

Round	A1	A2	A3	A4	A5
Second	0	2	1	1	1
Third	0	Drop Item	2	0	1
Fourth	1	Drop Item	Drop Item	1	0

\*\* Based on the interquartile range A2 and A3 item was dropped because the value  $\geq 2$

Based on Table 4, only item A2 and A3 have been dropped because the value of  $\geq 2$ . So, this item was dropped. Based on the (Peck & DeVore, 2011) that the value of interquartile range  $\geq 2$ , there is no consensus among expertson these items. Therefore, this item reorganized after 2 items were dropped.

Table 5. Items have been prepared after the process of dropping the items

Item	
A1	Developing goals for the entire institution refers to the generation of human capital required by the state based on the needs of NKEA
A2	Spread the vision and mission that have been designated by Malaysian Ministry of Education to be understood and known by the staff of the institution
A3	Using the results of student achievement in relation to the CLO and PLO to make improvements to the program and goals of the institution

## 7.2 Example 2

Table 6. Items for 'Providing Needs and Recognition'

Items	
B1	Recognize the students who do work well with rewards such as certificates of appreciation or made headlines in speech of directors
B2	Recognize student achievement by rewarding them based on the achievement
B3	Provide support to the lecturers to be active in generating innovation
B4	Provide rewards or funds in an effort to generate innovation
B5	Convey meetings with the lecturer concerned individual student progress
B6	Provide support to the students to explore and develop their own potentials

Table 7. Interquartile range values for each round of expert consensus for the items

Round	B1	B2	B3	B4	B6	B5
Second	0	0	1	1	1	0
Third	0	1	1	0	1	0
Fourt	1	1	1	1	0	0

\*\* Based on the value of interquartile range, no item was dropped because the value of  $0 \leq x \leq 1$

Based on the Table 7, no item was dropped because the value of interquartile range is  $0 \leq x \leq 1$ . According to (Peck & Devore, 2011) that value of interquartile range is  $0 \leq x \leq 1$ , then the item is the high consensus among experts.

## 8. Discussion and Implications

In making the analysis using the Modified Delphi technique, the researchers took into consideration all the comments and suggestions of experts for the purpose of purification and improvement. Item prepared after the removal process. Thus, the verse for each item processed, modified and purified.

Table 8. Item for 'Setting the Vision and Mission'

Item	
A1	Developing goals for the entire institution refers to the generation of human capital required by the state based on the needs of NKEA
A2	Spread the vision and mission that have been designated by Malaysian Ministry of Education to be understood and known by the staff of the institution
A3	Using the results of student achievement in relation to the CLO and PLO to make improvements to the program and goals of the institution

Table 9. Items for 'Providing Needs and Recognition'

Items	
B1	Recognize the students who do work well with rewards such as certificates of appreciation or made headlines in speech of directors
B2	Recognize student achievement by rewarding them based on the achievement
B3	Provide support to the lecturers to be active in generating innovation
B4	Provide rewards or funds in an effort to generate innovation
B5	Convey meetings with the lecturer concerned individual student progress
B6	Provide support to the students to explore and develop their own potentials

Consequently, based on the Table 8 and Table 9, it was found that the three items contained within the construct of 'setting the vision and mission', while six items in the construct 'providing needs and recognition' among the items that need to be emphasized in terms of 'Innovative Instructional Leadership'.

### 9. Conclusion

Towards achieving a high-income country and great challenges of this era of globalization, the administrator should have strong leadership style and tenacity, especially administrators in educational organizations where they need to show professionalism in order to make the governing institution as a place that can compete healthy as well as produce graduates with the knowledge and skills of the mind first class in realizing the government's intention to make this country as a country listed in the best position in education in the world by 2020. Therefore, the various stakeholders need to work together to improve and develop existing leadership styles towards greater position.

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# Public Knowledge of Climate Change: Malaysia's Perspective

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## Abstract

Increasing public awareness and educating the public about climate change is necessary in lieu of its effects on the health, wealth and well-being of all individuals concerned. Climate change is happening, extreme events related to it are on the rise globally and Malaysia is no exception. Recent events of the tsunami in 2004, extraordinarily large floods of 2006 and 2014 are evidences of this. Similarly longer hot spells resulting in droughts and water shortage substantiate the results of studies done both locally and globally. Therefore there is a need for the general public to be aware of and to understand climate change. The public has a critical role to play in responding to climate change. The dissemination of knowledge and awareness to the general public is now the concern being raised by many, especially those directly involved in scientific studies of climate change. This paper discusses studies and initiatives done in various parts of the world and some concerns raised on the matter. A proposed initiative for Malaysia will also be discussed. Climate change is intertwined with human behaviour, how we handle the world, how we sustain our natural resources will have an impact on our future climate. It is imperative that people are made aware of these issues and they play a bigger role in handling these issues as a means of increasing its saliency.

*Keywords:* Climate change; awareness; behavioral change; knowledge

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## 1. Introduction

Knowledge of climate change is a rising matter invoking interest from many quarters. Several categories of climate change are knowledge about how the climate system works; specific knowledge about the causes, consequences and possible solutions and practical knowledge for individual and collective actions. However public knowledge of global climate change and its associated environmental issues have received little attention globally. Changing deep rooted habits and behaviours which are detrimental to the health of our planet requires significant understanding of climate change and its impact. This understanding, derived from knowledge of climate change, will lead to conviction which will bring positive behavioural change in the general public.

Malaysia is a tropical country located 1°N and 6°N in the northern latitude and between 100°E to 103°E longitude. Its close proximity to the equator and surrounded by water bodies on most parts of the country, lends it a highly variable and hot climate throughout the year with pronounced monsoonal seasons. The average annual rainfall is around 2500mm and average temperature is 27 C. Multi-racial in citizen's composition, its economic activities range from agricultural and fishing activities up to highly technical industrial employment. Even though the industry and services sector dominate the country's economy, about a third of the population depend on the agriculture sector for their source of livelihood and this make up about 3.6% of the nation's GNP. In 2010, agriculture, forestry and fishing accounted for 13.3% of total employment of 11.1 million. The fisheries sector of Malaysia plays an important role by generating income and employment with foreign exchange. In 2010 it contributed 18% of the nation's GNP (Jab. Perangkaan Negara, 2014).

Climate change is an international threat that has no geographical boundaries and Malaysia is no exception to the phenomenon. Numerous scientific studies has been done to understand, analyze and predict changes in climatic

conditions of Malaysia such as work by Tanggang et.al (2006), Zin et.al (2010), Syafrina et.al (2014) and Zalina et.al (2014). A number of studies have shown that the dual monsoon season, namely the North-east monsoon and the South-west monsoon has changed in its intensity and magnitude. Incidence of extreme events is becoming more common resulting in strong winds, heavy rains, high waves and not forgetting droughts as well. The tsunami of 2004, the big floods of 2006 and most recently of 2014 are among the most devastating events to hit Malaysia. The economic loss runs in the billions. Losses of lives, property and for some loss of source of income are realities that need to be dealt with. The estimated damage assessment for floods uses a conservative figure of RM 100 million per year.

Outcome of studies on climate change done in Malaysia is representative to a certain extent of other tropical countries, bearing in mind that climate is a very highly variable phenomenon. The knowledge derived out of the various research done could be disseminated and shared with communities of similar climate conditions. Public awareness approach, knowledge sharing activities with the public, as well as mitigation efforts the general public could participate in are all common things Malaysia and other countries could share. To date limited work on public awareness of climate change has been done globally. It is thus important that countries sharing similar climate conditions and also similar demographic make-up to consolidate and share their findings. As we know, climate change is happening and the effect from it could be devastating, so it is timely that we put our efforts together and share our concern.

## 2. The need to understand climate change

Climate change will have far-reaching effects on the health, wealth and well-being of all individuals concerned. A large proportion of Malaysian population is vulnerable to the effects of extreme weather events such as droughts and floods that are associated with climate change. It was also reported that there had been a 1.3mm rise in sea level per year from 1986 to 2006 measured at Tanjung Piai, Johor. As discussed earlier, the impact of such events can be devastating to individuals and the nation as a whole. Without adequate measures, occurrence of floods and increase in sea level could cause displacement of people and damage infrastructures. Climate change threatens to make existing problems of poverty, disease, and inadequate housing worse. The aftermath of flooding

bring forth diseases such as cholera, skin diseases, diarrhea, leptospirosis and so on. These outbreaks are associated

with the contamination of drinking-water facilities, improper sanitation and lack of adequate sewage treatment.

Besides that, agricultural production from eroded or inundated lands will be halted. In Peninsular Malaysia alone, 29,000 square km of land area has been identified as flood prone, affecting approximately 4.82 million people (Norsam, 2014). Threat from drought is another factor bringing extensive impact to environment and social activities. The 1997/98 El Nino related drought was among the most impactful in Malaysia putting large parts of the nation under threat of wild forest and peat fire due to prolong dry weather condition. The country experienced months of hazy atmosphere that impeded the health of every citizen. Again, there is economic deficit as yields from crops and livestock suffers a decrease.

It was estimated that for every 10 C temperature rise there will be a 10% reduction in rice yields. Oil palm plantation may also be negatively affected by either a rise in temperature causing drought or increased rainfall that leads to flooding (Ramadasan et al., 2001). According to Low and Ahmad Jamaluddin, (2001), the increase in flood intensity and frequency would incur additional costs on water resources management due to the needs to adjust future flood mitigation plans as well as the existing flood mitigation schemes and drainage systems.

Similarly rise in sea level will lead to tidal inundation, shoreline erosion, increased wave action and saline intrusion, causing submergence of corals, loss of fisheries resources, plantation lands, and mangrove forests, and possible relocation of coastal infrastructure (Lee and Teh, 2001).



Globally, the scientific community practically reach a consensus that there exists a causal relationship between human activities and climate change (Lorenzoni and Pidgeon, 2006). Greenhouse gases (GHG) emitted by the use of fossil fuel, land-use changes associated with extensive farming, logging and land clearing for development purposes all contribute towards warming of the earth atmosphere. As more water retention land is turned into impervious surfaces, rainfall runoff will increase in volume, swelling up rivers creating the floods. The Intergovernmental Panel on Climate Change (IPCC) admitted that developing countries are more vulnerable to climate change compared to developed countries. The rapid industrialization in most developing countries saw a higher consumption of energy that relied heavily on fossil fuel. While most developed countries saw their carbon dioxide emission decrease between 2006-2010 developing countries saw an increase over the same period of time (Masud et.al, 2013). However the research of PEW Global (2006) indicated that developing countries have a lower level of awareness of climate change issues compared to developed countries. A study conducted by WWF Malaysia and Partners in 2007 reported that only 45% of adults and students are aware of the causes of environmental problems. Similarly a study by Meerah et.al (2010) found that school students' knowledge of environmental related issues is still very low.

In view of all the climate change related disasters discussed above, it is imperative that steps be taken to alleviate and further prevent the problem from escalating. Responding to climate change means changing our behaviour and the way we think about natural resources. There is need to change the mindset of the public, to instill a sense of responsibility towards conserving the earth to prevent it from further deterioration which will link to changes in the world's climate. Recycling, reducing household energy consumption, keeping and increasing the greenery are all efforts that should be inculcated to the general public. Using public transport instead of personal transport will cut down carbon emissions by about one quarter and for the year 2014 Malaysia emit more than 234 thousand metric ton of carbon dioxide.

### 3. Review of global studies on climate change awareness

Worldwide, decision-makers are confronted with challenges in adapting to a changing climate (Moss et al., 2013). Lessening the susceptibility and applying the needed measures to reduce climate change impact are not necessarily the task and responsibility of governments. The gravity of climate change calls for public participation to work together with decision makers in reducing the vulnerability and how best to adapt to the impacts. Public must be aware and be informed about climate change consequences and the actions they could adopt in order to adjust to climate change. Awareness raising, therefore plays a crucial role in the adaptation process to manage the impacts of climate change, heighten the adaptive capacity, and decrease the overall vulnerability. In addition, political awareness is also as important because policy makers and politicians are key players in the policy process of adaptation.

In order to achieve the desired outcome in educating the public, awareness raising crusade should have the appropriate strategies in disseminating information. Although awareness campaigns could be different from one another, the essence of the campaigns is basically similar. Most would focus on increasing concern, informing the targeted audience, creating a positive image, and attempts to change their behaviour.

Pugliese and Ray (2009) reported outcomes of a Gallup conducted between 2007 and 2008, to survey global opinions about climate change of which two questions were posted to respondents in 128 countries: 1) *How much*

*Do you know about global warming or climate change?* and 2) *How serious of a threat is global warming to you and your family?* Results of the survey differ by region with the highest awareness in Europe and tapers down to lowest among adults in sub-Saharan Africa. What is rather interesting is adults in Asia are the least likely of all to say climate change is a serious threat; less than a third, 32%, perceive it as a threat.

Communicating to the public a scientific knowledge is a challenge. Bringing it down to the level that the general public can appreciate to understand minus the skepticism of it being unnecessary fear creation is an approach

that requires some strategic thinking. What people might want (or need) to know about climate science, and the chance of them acting on climate change will be determined by their conviction on the matter. In a recent paper in the journal *Nature Climate Change*, Nick Pidgeon and Baruch Fischhoff suggested that instead of assuming what people should know about climate science, a better way of beginning the process of climate change communication is to find out what they *want* to know (Pidgeon & Fischhoff, 2011). However, prior to that an assessment of their awareness level should be conducted to minimize a gap in the communication. A recent study by Anthony Leiserowitz at Yale University showed that although 92% of Americans know about the issue, it remains a low priority relative to other issues and lacks urgency. Harriet (2000) in a study on Australian public understanding of climate change concludes that ignorance about climate change is preventing appropriate public action. He states that in order to create public support for individual behavioral change more information concerning the correct understanding of the problem must be given to the public. Climate change is an indicator of the nature of environmental problem with the relation between society and nature, experts and the public and local and global communities. There is a need therefore to move from a narrow conception of public knowledge towards recognition of the complex and contradictory nature of understanding of global environmental issues.

There have been many efforts by the international community in promoting public awareness as well as finding ways to reduce the impact of climate change. For example, the general mass-media are regarded one of the tools which is frequently employed in an effort to influence public opinion of some particular issues. In particular, media is essential in educating and informing the public on effects of the deteriorating environment and related human impact. Many public opinion surveys in developed countries revealed that television and daily newspapers are used as primary sources of information (Project for Excellence in Journalism, 2006). In Japan, Aoyagi-Usui (2008) reported that most of the Japanese public derive information regarding environmental issue from televisions and daily newspaper. Sampei and Aagoyagi-Usui (2009) conducted a study on Japanese newspaper coverage of global warming from January 1998 to July 2007 and how public opinion during parts of that period were influenced by newspaper coverage. It was found that an extraordinary increase in newspaper coverage of global warming from January 2007 correlated with an increase in public concern for the issue. In the 6th Asia-Europe Journalists' Seminar in 2011, it was discussed how the media can be more effective role in increasing public awareness to address the problem of climate change and the need to speed up the global response to this challenge.

#### **4. What we intend to do in Malaysia.**

As discussed earlier, Malaysia has been experiencing more and more severe weather in the last two decades. Coastal communities are among those badly hit by changes in sea level as well as floods. A study to examine the awareness and adaptation to climate change impact is proposed to be conducted on the coastal communities of Peninsular Malaysia. This will be a case study on two badly hit coastal communities located on the east coast of Peninsular Malaysia. The specific objectives of this study are to identify the socio-economic characteristics of the respondents and examine the level of awareness about climate change among respondents in the study area.

##### **4.1. Research instrument and data collection**

A preliminary visit to the coastal areas was done to identify two communities for the case study. A questionnaire will be developed and variables of interest will be demography of the respondents, their socio-economic activity, the effect of climate change on their lives which involve displacement and changes in socio-economic activities and their awareness of climate change issues. Data will be collected via face to face interviews on focus groups. The respondents will be a mixture of both young and older folks. This study will employ both quantitative and qualitative approaches. The aim of the study is to assess the impact of climate change on economic activities of coastal communities as well as the awareness of coastal communities on the impacts of climate change. Three focus groups will be identified for each location: (i) fishing community, (ii) local businesses, and (iii) residents. Each focus group will comprise of about ten participants. An analysis of the source of climate change awareness will be done to reveal their awareness of the phenomenon.

#### 4. 2. Expected result

The relationships between some selected socio-economic variables and the use of climate change adaptation measures is expected to reveal that educational qualification influence the use of adaptation measures among the respondents. Education plays an important role in creating awareness because educated people are better equipped to source information. The adaptation mechanisms to climate change being used by the respondents will be analyzed. A closer study at the adaptation mechanisms will be done to determine the factors that influence adaptation to climate change by the respondents. The study will also identify the constraints to adaptation to climate change by the coastal communities in the study area. It is expected that respondents or the authority have adopted certain measures against climate change. These adaptation measures will be studied and factors influencing specific measures will be determined. Adaptation in terms of the number of strategies may be used by respondents. These adaptation measures may correlate with the level of education of the respondents.

Age may also be significant in influencing the use of adaptation measures among the respondents. This is because younger respondents may have greater tendencies to improvise and adopt new technologies because they are relatively more knowledgeable, more open to risk taking, and have longer planning horizons than their older counterparts. Household size may also be significant in influencing the use of adaptation measure among the respondents. Household size could be a measure of available labour for economic activities. In the undertaken adaptation measures, there may exist constraints to adaptation to climate change. Some form of hindrance to adaptation to climate change may surface in the study such as poor financial resource base or unavailability of weather information and poor access to technology to access information and services. Finally, the result of this study would help us in creating public awareness of climate change impact and also determining the best adaptation measures to climate change to be adopted for coastal communities in Peninsular Malaysia. Further study can later be extended to East Malaysia coastal communities too.

#### 5. Conclusion

Undoubtedly knowledge of climate change and its impact on the environment and people's lives should be ingrained in every individual. The mass public should be informed on the impact of climate change, and demonstrate ways in which its negative impacts can be mitigated. Efforts on sustaining a liveable earth for the current and future generation must be a priority in any community. In order to create behavioural change in the public, appropriate information on the scientific aspects of climate change need to be conveyed to the public. As discussed earlier, efforts have been undertaken in a number of developed countries on public awareness of climate change effect, and the results does vary with regions and communities. Ignorance of climate change will be a hindrance to efforts made by policy makers, scientists, environmentalists and others, hence continuous efforts must be carried out as a mitigation measure.

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# Business Process Learning System With Real-time Simulation Approach

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## Abstract

Business process is a set of activities that are logically arranged in an organization by taking resources as input to produce output that is valuable to business interests as well as to organize work activities, information and knowledge to solve specific business major objectives. Knowledge about Business process is important to help Information System students to have an understanding of how a business system works, as well as to model the most appropriate system to improve the business performance. But according to a survey conducted in an Information System major in XYZ University, the graduates still have a lacking knowledge and experience in this area. This happens because all the courses related to business processes are taught without taking accounts of real-time environments and their subsequent pressures such as time, capacity and limited resources. Therefore an adapted learning system based on a real condition of a company's pressure is needed to help students understand the real condition of a business process. This research proposed a web-based business process simulation learning system that works in a collaborative learning environment. The aim of this research is to propose a framework for teaching and learning business process by using Business Simulation Games. This research objective is to enhance student skill and experience in business process that lead to a better strategic decision making. The proposed learning system will simulates the complexity and dynamic of the retail industry by including an internal factor that influences the company performance, and also adopt Porter's Five Forces as the external factor that influence market industry. The web based technology will help students and teacher (as instructor) collaborative interactively in real time manner. Simulation can take place with the role of the instructor and participants. The instructor acts as the controlling company's market and resource conditions while students compete for profits with the influence of pressure on suppliers stock, market demand, warehouse capacity, distributed time, market dynamic conditions and resources in time based condition

*Keywords:* Business Process; Business Simulation Games; Decision Making; Porter Five Forces

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## 1. Introduction

The Business process is an essential concept in several major courses in Information System. According to XYZ University curriculum, business process is explained through several major courses namely Business Process Analysis; Business Process Management; Operations and supply chain management, Enterprise Systems and ERP System using SAP. An Information System engineer not only need to know and understand the concept of business process, but they also have to be able to understand business process in a holistic manner, so they have the ability make the right decision about how to improve a business system's performance. According to a survey that was conducted for the graduates of Information System Department of University XYZ that works in the field of services, manufacturing, retail and entrepreneur, 69% of the graduates feel that there is a gap between knowledge on business process they have learned with the business process they face in their work environment. One of the major reasons is that during their study all the knowledge is taught as a sequence of theories and procedures without taking account of real-time pressures such as multiple transactions, cash flow, goods flow, information flow and acts of competitors. To overcome these gaps, a new learning method for a better understanding business process is urgently needed. The absence of technical components of education and training is being considered a major contributing factor to the lack of preparedness or skill that are deemed extremely important for a vast majority of professionals who need to make complex decisions in high-paced, dynamic work environment. Hopefully this new learning method for the business process organization would be able to enhance the competency of information system engineer through experience and a collaborative learning process by applying theory in practice One of the solution for learning a real time business process is through simulation approach. Today, simulation learning methods are becoming one of the popular methods to gain experience of the real work environment. using simulation technologies has been proven to be an excellent tool for modeling complex environments (Barjis, Gupta, Sharda, Verbraeck, Lee, & Bouzdine-

Chameeva, 2012). The purpose of this study is to explore the applicability of simulation approach on learning business process organization. Consequently, this propose approach leads to the following questions:

- How to teach not only the basic concepts of the dynamic of the organization business process, but also to understand the pressures in organization's decision making process?
- What kind of educational approach and technologies can be used to teach and give the collaborative experience of the business process organization.

The major reasons of developing business process simulation learning system are to help students to gain experience and knowledge about strategy aspects, decision-making, learning outcomes and teamwork experience about an organization's business process. The proposed system will be about a logistic process in a retail company. To gain the experience of making decisions on dynamic environment, a real market industry pressures based on Porter's five forces and time pressure on retail industry will be included.

The rest of this paper is organized as follows. In section 2, we review several related studies. In section 3 we explained the propose system model and architecture in detail. In section 4 we will explain design and implementing of the proposed system. Finally, we summarize our research and list some future work in the last section.

## 2. Related Work

Business process is a sequence of activities that take a set of inputs and convert them into the desired output. Business processes defined as the sets of interlinked activities or roles that deliver specific outputs to identified customers inside or outside the organization (Ward and Peppard, 2002). Today, most of the organization uses three fundamental processes in their business (procurement, production and fulfillment). In the procurement process, the organization acquires the basic materials that it uses to produce goods or services. The production process, involves manufacturing or generating the desired goods and services. And in the fulfillment process, the organizations deliver the goods or services to its customers or resellers (Magal and Word 2012). With the real industry environment, the enterprise interacts with its customers, suppliers and competitors, but, in addition to these interactions, there are potential new entrants into the particular competitive marketplace and potential substitute products and services. To survive and thrive in this environment, it is obviously vital to understand these interactions and the implications, in terms of how to avoid being disadvantaged and to understand the opportunities to gain competitive advantage (Ward and Peppard, 2002). Figure 1 describe Porter's five forces model analysis organization use in order to keep it's competitive edge in the market. There are five threats organization face in the market, which are:

- The threat of substitute products or service
- The threat of increased competition from rivals in the market
- The threat of new entrants into the market
- The bargaining power of suppliers
- The bargaining power of buyers

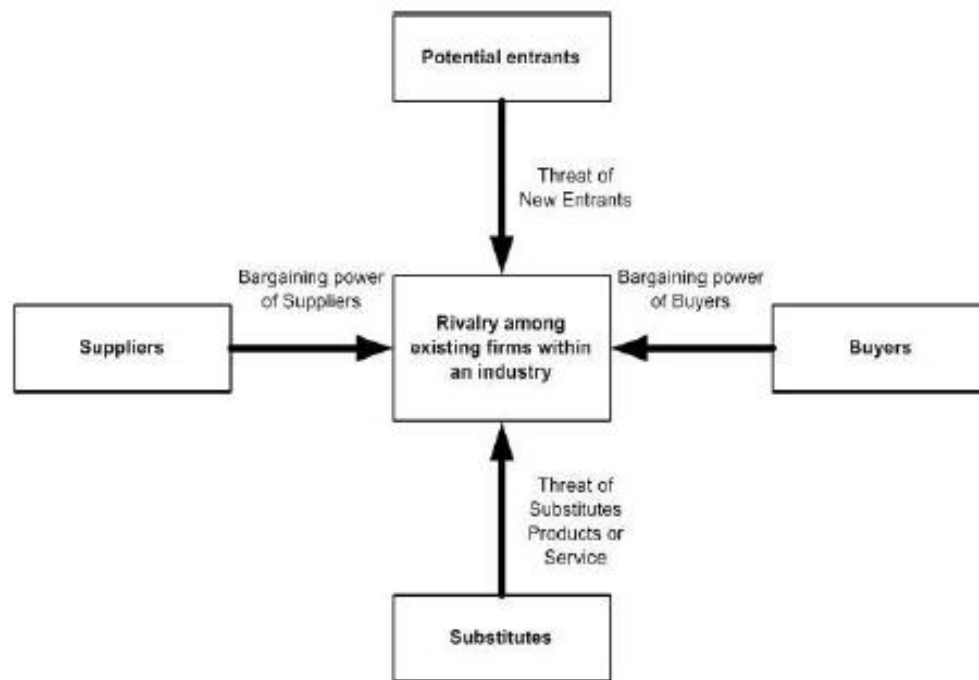


Fig. 1. Five Forces Porter Framework (Ward and Peppard, 2002)

This model becomes one of the basic analyses that a company uses to make strategic business decisions. Because if a company is able to address the competitive force according to their potential impact, it gives the company a better business position than its rivals. So to be able to use this analysis model, a company's organization not only needs a person who knows the concept but also has the experience and wisdom needed in order to make a better analysis that leads to better strategic business decisions. The business value, which can be gained from the management process, depends on the decision-making latency or action distance. The action distance consists of three factors as follows (Hackathorn, 2003):

- Data latency. The time starting from the point that a business event occurs, relevant data are captured, prepared and stored.
- Analysis latency. The time for data analysis, information generation and delivery to the proper persons.
- Decision latency. The time to consider and understand all relevant information, make decisions to take the course of action and respond with an intelligent manner.

The decision-making latency depends on manager ability and experience. The more experience and skillful the manager, the less time consuming on action latency. One of the objectives of the business process simulation learning system is to give student experiences of the dynamic of retail industry. Business simulation game is a representation of a real system or a process that is electronically generated and artificially constructed. It's also has competitive activity with a specific goal and a set of rules and constraints that is located in a specific context (Hainey, 2010) and (Wilson et al, 2009). Business simulation games have been developed and used for teaching the business concepts for more than 40 years in universities and companies (Faria, Hutchison, Wellington & Gold, 2009). Simulation technologies used to give student a competent means of analyzing complex systems, to give a better understanding of changes and effects of business processes (Ismail, Abo-hamad, and Arisha, 2010). However despite the value and benefit of simulation learning model, there have been very few examples of simulation games being used in education.

In this research, we used a simulation approach to give a better understanding of business process concept in the retail industry through experience and collaborative learning system. We will adopt Porter's five forces model, information and time as pressure that affect the decision-making regarding organization business.

### 3. The Framework

In this section, we will explain the objectives, system architecture, rules and scoring methods for the proposed business process learning system. This section will also explain how well business process and the forces are integrated and also describes the function requirement for this work.

#### 3.1. System Objectives

The core foundation of this Business Process Learning System is a simulation and collaboration; its main objective is to create a learning system that emphasizes the necessity for the student (as a player) and to be creative in deciding and solving problems about when, what and how to act. In this proposed learning system, the lecturer plays the role as an instructor and system admin. The main objectives of this proposed learning system are:

- Develop students' understanding of the dynamic pressures of a business process organization, especially on the retail industry
- Enhance students capability to make the best decisions in different challenging situation under different pressures and scenarios, in a time-based environment through collaborative experience.

A web based simulation business process learning system make the educational process more interactive, which in turn will make the student gain knowledge and experience. Using different pressures and scenario, the learning system will also help students being more creative and increasing their business instinct to make the strategic business decisions. Hopefully the proposed learning system could increase student knowledge retention.

#### 3.2. Functional Requirements

In this section we will explain the functional requirements of the proposed learning system. The main challenges of employing simulation and web-based learning system is to design the architectural framework of the model system. Figure 2.(a) illustrates the model of the proposed learning system.

As illustrated in Figure 2.(a), there are two main factors of the learning system, which is internal factor and external factor of the business process company. Internal factor comprises a goods flow and cash flow that a company has to manage in order to gain its business objective. Goods flow influenced by company performance in order to distribute and give value to its costumers. Cash flow could influence goods capacity of the company. Every decision that needs to be made regarding company internal factors involve all strategic parties in business process organizations and depend on the company's Master Data. In a logistic business process. In business process retail industry, starting from procurement process, storing and selling.

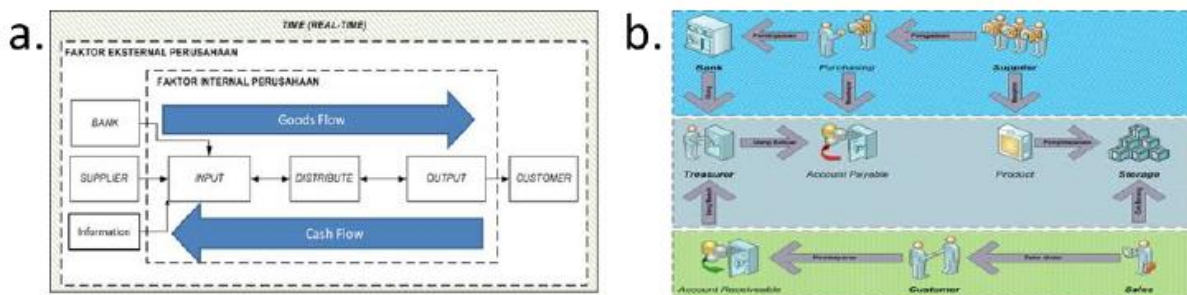


Fig. 2.(a) Model of Proposed System ; (b) Game Flow of The Proposed Learning Simulation System

Pressure that influence in making strategic decision related internal factors are:

- Procurement process, company has to check their budgeting and manage their cash flow based on strategic business objective
- Storage Process, company has to check their storage capacity and manage their goods flow. Selling Process, company has to check their goods in the storage in order to fulfill costumer needs and quantity. Company also have to manage their distribution time to costumer need by balancing the lead time between suplier, storage and costumer.



External Factor is all the pressure in business processes that could influence market condition. In this proposed learning system we will use Porter Five Forces as the external factor as shown in Figure 1. Based on Porter Five Forces, information as one of external factors, could influence internal factors of the organization business process. Information on Market Condition had a considerable impact on all forces in the industry because of the nature of the goods, how it is purchased and the information needed to be exchanged in order to complete a transaction. This, will lead to a condition that force company to make the most suitable decision based on information on Market condition. Students' decision making and action latency capability will also be a crucial factor in how successful they during the proposed simulation learning system. In the procurement and storing process, student need skill when allocating storage space in accordance to inventory policies and customer demand.

In proposing a learning system, a simulation approach will be used to give students the experience their needs regarding business process organization and how making the correct call on strategic business decision in a time based condition.

### 3.3. System Architecture and Scoring Methods

In this research, in order to achieve system goal and characteristics as state on previous part, we proposed a simulation system that could work interactively based on scenario given by teacher. The flow of the proposed learning system illustrated in Figure 2. (b). In this section, we will explain the rules and scoring of the proposed learning system. The competitive challenges in the game environment and its web based technology, encourage participants to engage for a long periods which could increase time in learning and building knowledge and creativity of student in this area. The web based technology also will develop student's communication and management skill through collaborative environment.

Based on the design of business process and the game flow of the proposed learning system. Table 1, describe the Actors rules and objectives that implemented on the proposed learning system. As described in table 1, once the initial process complete, the simulation process begins. The student can receive orders from customers and partners and will have to manage the fulfillment of these orders to their best performance, which includes process and activities such as on-time delivery, correct order quantities, efficient cost of storage and distribution. Inventory management, which is a crucial decision making process in the proposed learning system, starts when the student understands the market conditions, then they try to predict and supplying goods based on information of market condition and customer needs. Table 1 also describes that the student and instructor will reflect and analyze the game in the scoring process. in this process, the system will show score based on player profit.

$$\text{Profit} = \sum \text{Goods} (\text{Sell Price} - \text{Buy Price} - \text{Storage Cost} - \text{Distribution Price}) - \text{Bank Loan} - \text{Information Cost (1)}$$

Table 1 Rules and Objectives of Proposed Learning System

Process	Actor	Rules	Objectives
Initiate	Teacher (Instructor)	State the basic rule of the game and instruct the start condition	Create initial game condition ; <ul style="list-style-type: none"> <li>List customer demand</li> <li>List Item</li> <li>Quantity of demand</li> <li>Pricing</li> <li>Storage limit</li> <li>Player's capital</li> </ul>
	Student	Coordinate and negotiate between business partners and rival	Understand game's initial condition
Simulation	Teacher (Instructor)	Change the dynamic of the game by giving pressures and Market Information	Manage Market Condition
	Student	Players coordinate, negotiate and communicate.	<ul style="list-style-type: none"> <li>Make the most suitable business decision based on game dynamic</li> <li>Compete with each other in order to gain business objectives.</li> </ul>
Scoring	Teacher (Instructor)	Give feedback and lesson learn from the game.	Deciding the winner and sharing the knowledge and experience gain by the student
	Student	Stop the learning simulation	Analyze their performance

In the scoring process teacher can also give the students feedback about their performance and behavior during the game to enhance their skills and gain knowledge.

#### 4. Implementation of Business Process Learning System With Realtime Simulation Approach

The system is developed in the form of a web-based application using PHP and MySQL database. Figure 3 (a). shows the interface of the developmental learning system on which teacher as instructor will input the customer demand. The customer demand works dynamically and in real time.

Figure 3.(b) shows Request Order in the student side that will display the list of customer demands and their quantity. All Students could take the customer order. The competitive environment between all students happen when more than one student wants to take the same customer's order. The fulfillment process of the customer demand influence by cash flow, goods flow and pressures. Figure 3.(c) shows Menu User Storage on the proposed system. It shows list of goods and quantity of the student. It also gives information about their basic price and selling price. The quantity of goods depends on its size and storage limit capacity.

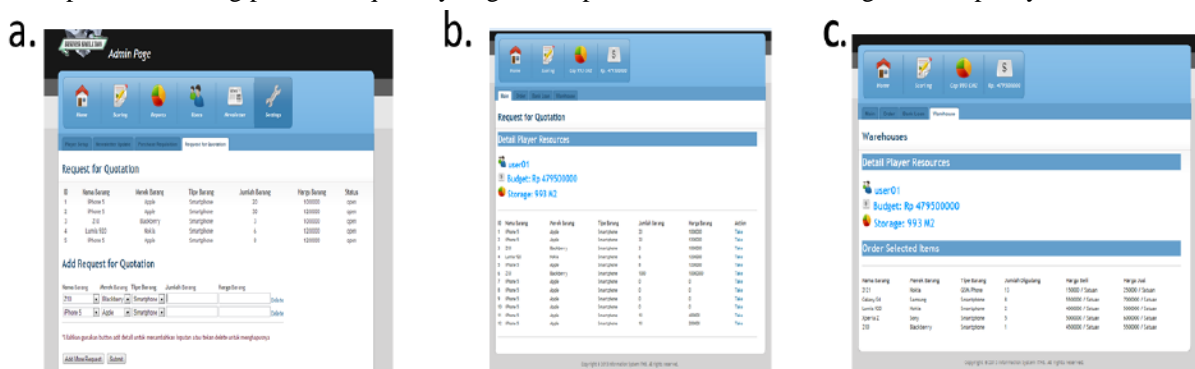


Fig. 3. (a) Setting Customer's Demand ; (b) Request Order ; (c) Menu User's Storage

User can also buy newsletter if necessary to gain information about the market conditions, as shown on Figure 4.(a). Information also will give an advantage in making the right decision and to minimize action latency, but like other pressures, information has its business value and cost. Sometime instructor will give unrelated or obsolete information on the market condition. Figure 4.(b). shows the scoring menu, it will show at the end of game simulation. All users can see the result and compare each of their performances.

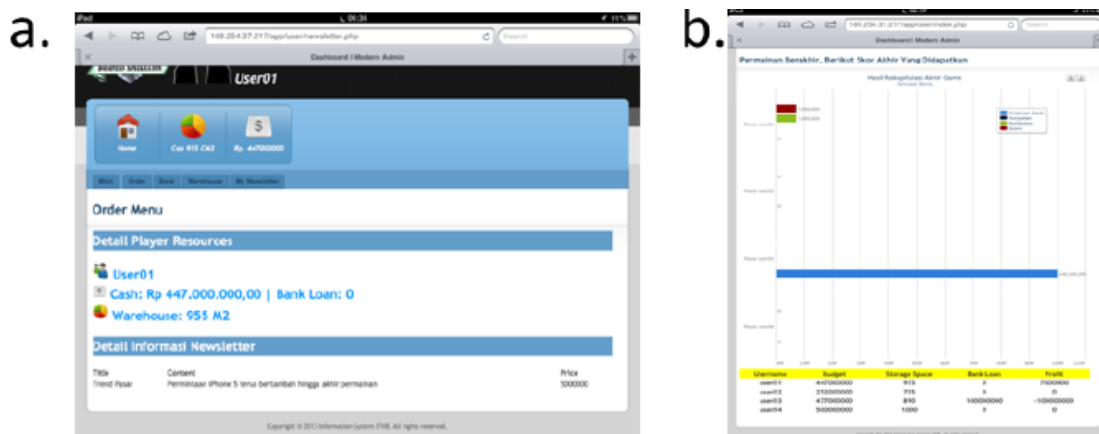


Fig. 4. (a) Newsletter ; (b) Scoring Menu

#### 5. Conclusion

This research aims to design and develop a Business Process Simulation Learning System. The major reasons for developing the proposed system are to give student experience, strategy and management aspects, minimize time consuming on action latency, teamwork and negotiation skill in the business process, also its dynamic and pressures. The proposed system is an interactive web based technology in order

to give collaborative skill and experience by Simulating a real retail industry. In order to simulate the dynamic of the real retail industry, there are external and internal factors that influence the decision making. Besides of giving knowledge for the students, the simulated learning system can also give recreational experience and increase the student's interest to participate. The future work of this research is to do a research on comparative study of system objectives. The future research is a pilot run of the proposed simulation learning system in the next academic year, during which its effectiveness in student learning processes will be analyzed and evaluated. To increase the proposed learning system ability, we will develop a business process scenario in the logistic process. Future research includes adding expert system as competitor of the proposed learning system with their random nature to influence market condition.

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# The Use of Social Media (SM) in Business Strategy: A Discussion on Malaysia Trends, Theoretical Viewpoints and Cyber Law Acts Impacted

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## Abstract

This paper presents a general overview on the issue that Social Media (SM) has become important for the firms as a business marketing strategy. The strategy will be discussed further by highlighting several case studies based on Malaysia's business environment which takes the advantages of Social Media (SM) to enhance their business marketing that are; Malaysian Airlines System (MAS) and Durex Malaysia. Some theoretical views on this state-of-the-art business strategy from the leading philosophers; Kantianism, Rule Utilitarianism, Act Utilitarianism and Social Contract Theory will also be highlighted and discussed further. In the end, this paper will deliberate on Malaysia Cyber law acts toward the uses of social media in marketing strategy, particularly the control power and how it can protect customers from being fraud and manipulated

*Keywords:* Social Media (SM), business strategy, theoretical views, cyber law acts

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## 1. Introduction

Social media (SM), which begins as an entertainment tool in the beginning, then became the most recent marketing phenomena because of its remarkable advantages in business area. To be specific, social media are computer-mediated tools that allow people to create, share or exchange information, ideas, and pictures/videos in virtual communities and networks. According to Kaplan and Haenlein (2010), SM is defined as 'a group of internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user-generated content'. User generated content which has been found to be more effective than traditional marketing communications in influencing the attitudes and behaviours of other users (Thackeray et al., 2008). With the wide use of Web 2.0 technologies, such as blogs, wikis and social network sites, common users gained the capacity to create web content (to write) (Shi, 2013) and distinct from old forms of media, SM can include both web-based and mobile technologies (Mou, et al., 2013).

SM technologies take on many different forms including magazines, internet forums, weblogs, social blogs, microblogging, wikis, social networks, podcasts, photographs or pictures, video, rating and social bookmarking. In 2014, the largest social network is Facebook and other popular networks include Twitter, Instagram, LinkedIn, and Pinterest (U.S Digital Consumer Report, 2014) where these sites allow people to stay in contact, whether it is through pictures or writing.

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## 2. Uses of Social Media (SM)

Several studies in the United States provide evidences that the uses of SM indeed have positive impact on business especially on the small and medium companies (as cited in Swallow, 2010). The empirical studies had shown that they used SM extensively and perceived that SM was very important for business/marketing strategy (Barnes & Matson, 2008; Deloitte, 2011; Universal McCann, 2008; and Swallow, 2010).

Organizations should consider using SM because of the changing trends among consumers. Due to the advantages of SM in connecting businesses to end-consumers directly, in a timely manner and at a low cost (Kaplan & Haenlein, 2010), by facilitating various areas of marketing, such as promotions, marketing intelligence, sentiment research, public relations, marketing communications, product and customer

management (Akar & Topcu, 2011 and Tanuri, 2010). Table 1. highlights the identified potential uses of SM in enhancing organizational business strategy. The uses are simplifies in the following table adapted from Parveen., F., Jaafar, N. I. & Ainin, S. (2014).

Table 1. SM uses as a state-of-the-art business marketing strategies.

	Items	Descriptions
1.	As an information sharing channel	Organizations share information about their products, services, promotions, campaigns, current happenings and upcoming events to the public. Organization's involvement in corporate social responsibility activities is also posted and shared on social media pages, which helps to enhance the image of the organization.
2.	For branding	This is true as the situation now is that brands talk to the customers, customers talk to the brands, and, most importantly, customers talk to each other. The results also showed that advertising and promoting products and services on social media would reach more people, as many people spend their time mostly on social media sites, such as Facebook and Twitter.
3.	For conducting market research	To obtain customer feedback on existing products and services and also opinions about upcoming new products and services. Through social media sites like Facebook, the organizations can ask their customers or fans to share a particular link and recommend a product or service to their friends.
4.	To develop a good relationship with customers	Social media tools help organizations to have two-way communication with customers. This continuous communication with customers can be used for solution development by utilizing customer opinions in making key product decisions (IBM, 2007; Zyl, 2009)
5.	Strong impact in terms of cost reduction for marketing and customer service activities.	In today's era the digital advertisements, especially in social media websites, such as Facebook and Twitter, have, to a great extent, reduced the cost of advertising.
6.	Improvement in information accessibility	Organizations can easily obtain the information about their potential customers, their tastes, their wants from the conversations on the Facebook pages. By becoming a fan of Facebook pages of other organizations, they can also obtain the information about their competitors, their activities, their tactics and their brand sentiments.

### 3. SM Usage among SMEs in Malaysia

In the context of Malaysia, the government as well as businesses has started to realize the importance of SM as an important strategic tool among organizations. According to the Burson-Marsteller Asia Pacific 2011 Report, Malaysian firms use SM for corporate communications and marketing activities. The results of the study reveal that among the Southeast Asian organizations, the Malaysian, Thai and Filipino organizations have invested strongly in SM. It was also found that South Korean, Australian and Malaysian organizations are actively promoting their SM channels through their corporate websites (Slover-Linett & Stoner, 2011).

A recent study on SM usage among SMEs by regions in Malaysia by Shahizan, et al. (2012) reveals that most of the participants agreed that SM especially Facebook (FB) indeed can be used as a tool to attract customers and serves as an effective persuasive tool for business. FB for example is currently the best tool to advertise products or services because the information can reach potential customers very fast. The focus group session were involving 22 participants comprised of SM users in business. The study also highlights data regarding the trends of SM usage among SMEs by regions and the type of SM used among the SMEs (Table 2. and Fig. 1.).

Table 2. SM usage trend among SMEs by Region (Source: Shahizan, et al., 2012)

No.	Region	SM Usage Trend	Percentage
1	North	48	19%
2	South	32	12%
3	East	13	5%
4	Centre/ Middle	152	58%
5	Sabah	9	4
6	Sarawak	6	6
	<b>TOTAL</b>	<b>260</b>	<b>100%</b>

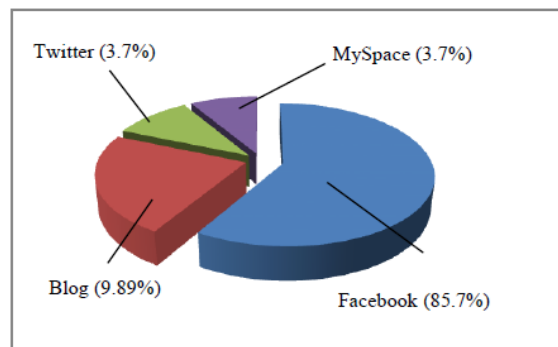


Fig. 1. Type of SM usage among SMEs

Conversely, this study also suggests the fact that the usage of SM among SMEs is still at its infancy and Multimedia Commission (MCMC) can play its role to remedy this. Among the efforts that can be carried out by MMC as such by spearheading the SM usage among SMEs such as SM awareness programmes, FB for business, FB for advanced users, and SM marketing (Shahrizan, et al., 2012). A more recent study by Parveen., F., Jaafar, N. I. & Ainin, S. (2014) is also agreed that organizational usage of SM in Malaysia is still in its growing stage therefore, the direct impact of SM on the revenue generation is still considered minimal at this level.

#### 4. Case study of companies using SM in Malaysia

##### 4.1. Malaysia Airlines System (MAS) in partnership with Rally

Operating from one single Facebook URL [www.facebook.com/malaysiaairlines](http://www.facebook.com/malaysiaairlines), the global strategy is aimed at meeting the rise in demand for localized content from the airline's key markets. Facilitated by Rally, IPG Mediabrand's social media specialist agency, the exercise will help Malaysia Airlines uncover deeper insights on what drives travel volumes and deliver a more personalized travel experience for each market. This "glocal" approach ensures that Malaysia Airlines remains a global brand while tailoring its campaigns to the unique travelling habits of each region. It also brings Malaysia Airlines the convenience of managing one global community so the airline can focus its efforts and streamline its resources, while increasing the effectiveness of its marketing strategy. The initiative is seen as a bold step forward for smart media investment and the airline industry as a whole. The campaign also signifies a sign of the maturity and measurability of the SM scene in the country.

Through its official Facebook medium, followers can now log into Malaysia Airlines Facebook page to get the latest news and updates including the best tips, deals and travel offers. Fans can participate in competitions that are local centric and see advertisements with a localised message. With the launch of the global Facebook page, Malaysia Airlines has initiated a global campaign: *Journeys are made by the people you travel with*. The campaign is about how everyone is on a journey and how Malaysia Airlines can help take that first step to start a journey. The global Facebook page will cover markets including Malaysia, Singapore, Thailand, Indonesia, Brunei, Philippines, Vietnam, Japan, South Korea, Australia, New Zealand, India, Ireland, UK, France, Netherlands and Germany while other countries will be assigned to the Global page. To execute these local campaigns successfully and keep the timelines updated, all 17 countries will have dedicated social media teams in charge of content development as this will ensure timely, fresh content every day which is seen as key to build strong lasting relationships with customers which will then have a positive impact on the bottom line.

The global deal will provide consumer insights that will help MAS understand the travelling habits of its frequent fliers in each region to devise locally relevant travel deals and build long term relationships. The deal also brings MAS a first-hand preview of new Facebook ad products before any other clients in Malaysia, monthly work-in-progress reports, brand and product tracking and consumer insights polls. The best deal is it offers better cost savings and less wastage on advertising, which comes with the streamlining of the pages and communication messages.

##### 4.2. MAS Leans on SM after Twin Tragedies- MH 17, MH370

It is reported that Malaysia Airlines's Facebook page and Twitter accounts have become something of a public condolence book as well as a brand rebuilding strategy due to the twin tragedies of the mysterious disappearance of Flight 370 and the downing of Flight 17 (Mann, 2014). A spokesperson for Malaysia Airlines confirmed the

importance of SM to their go-forward communications strategy where Malaysia Airlines admitted SM has been one of the crucial tools in its disposal in managing the aftermath of MH17 and it able to begin the healing process in a small way through the sharing of uplifting messages. The Malaysia Airlines strategy may be working. Messages from people who say they will continue to fly the troubled carrier fill Malaysia Airline's Facebook and Twitter pages despite a steady parade of negative news. Supporters from around the world began posting their condolences and messages of support when the airlines launched its #staystrong campaign on Twitter in late July, 2014 and it went viral, according to the International Business Times (Yenko, 2014), which claimed the Twitter tagline marked the first time the struggling airline used SM to express emotional messages instead of as a platform for official company announcements. The company's website now features the tag line: "Our Strength Is You," which is a nod to the brand's social media campaign. Later, the company has added another message to Facebook and Twitter, #flyinghigh, which is attracting its share of positive remarks.

#### 4. 3. Durex Malaysia, Singapore and ihub Media

In 2013, Durex Malaysia and Durex Singapore have teamed up with ihub Media to launch a SM campaign for "Always Durex – Always Be Prepared for the Unexpected". The campaign looked to instill awareness among youths about the importance of safe sex practices, planned or otherwise. The ihub Media designed Durex Malaysia and Durex Singapore Facebook applications relied on the power of visual storytelling to get their message across to fans. The applications arrived in a "vote & win" format, featuring three Durex videos where fans were able to vote and share their own ways of being prepared for the unexpected. The "Always Durex" campaign ran from 12 August until 10 September, 2013 and generated impressive numbers. Videos reached over 820,000 views in total and the application elevated Durex's Facebook presence in both countries, garnering over 8,000 new fans.

ihub Media's Chief Operating Officer, Mr. George Foo was reported saying the video in branded content is turning into a prime social media marketing strategy component and agencies will have to step up to the challenge of making every video count. Understanding Durex's goals for this campaign, ihub Media have integrated Durex compelling video content with the right digital media channels that fit their brand, resulting in a highly successful marketing campaign.

#### 5. SM as Business Strategy and Ethical Theories

This section examines Kantian, Act Utilitarian, Rule Utilitarian and Social Contract Theory (SCT) approaches to business ethics, respectively, using the social media as a business strategy and to decide whether the act is ethical or not.

##### 5. 1. Kantianism theory

According to Quinn (2014), Kantianism is the name given to the ethical theory of a German Philosopher Immanuel Kant. Kantian ethics is based on what Immanuel Kant claimed is the supreme principle of morality, the Categorical Imperative. Kant claimed that there were a few different but equivalent ways of stating the Categorical Imperative. The first, the Universal Law Formula, says that "we should act only on principles that we can will to be a universal law that applies to everyone." The idea here seems to be that when people act immorally, they want everyone else to obey the rules but want to make an exception for themselves. Another way of stating the Categorical Imperative is the Principle of Humanity. It says that "whenever we act we must be sure always to treat both ourselves and others as ends and never as mere means." The second formulation of the Categorical Imperative states that it is wrong for one person to use himself or another person as a means to an end instead, every interaction with other people must respect them as rational beings (Quinn, 2014).

##### 5. 2. Act & Rule Utilitarianism

Utilitarianism is based on the Principle of Utility, which states that an action is good or bad to the extent that it increases or decreases the total happiness of the affected parties (Quinn, 2014). According to the philosophers Jeremy Bentham (1748-1832) and John Stuart Mill (1806-1873), an action is good if it benefits someone and an action is bad if it harms someone.

There are two types of utilitarianism which are Act Utilitarianism and Rule Utilitarianism. According to Quinn (2014), Act Utilitarianism is an ethical theory that an action is good if its net effect is to produce more happiness than unhappiness. This is done by adding the change in happiness. If the net effects of all affected parties are more positive, then the action is deemed good and vice versa. Different from Act Utilitarianism, Rule Utilitarianism focuses on the moral rule. Its concept is "an action is morally right if and only if it is consistent

with the set of rules or moral code that would maximize happiness, if generally followed.” The moral rule, if followed by everyone, that leads to greatest increase in total happiness will be deemed good or moral (Quinn, 2014). Here, the difference is Rule Utilitarianism applies the Principle of Utility to moral rules, while Act Utilitarianism applies the Principle of Utility to individual moral actions.

### 5.3. Social Contract Theory

Social Contract Theory (SCT) derived from philosopher Thomas Hobbes (1603-1679). According to Quinn (2014), Hobbes argues that without rules and a means of enforcing them, people would not bother to create anything of value, because nobody could be sure of keeping what they created. Therefore, the need of mutual agreement to follow certain guidelines is needed. Hence according to Hobbes, moral rules “are simply the rules that are necessary if we are to gain benefits of social living.” James Rachels in Quinn (2014) further expands the definition of SCT by which “morality consists in the set of rules, governing how people are to treat one another, which rational people will agree to accept, for their mutual benefit, on the condition that others follow those rules as well.”

## 6. Issues of SM as Business Strategy

### 6.1. Invasion of Privacy

Today, custom internet advertising is widespread, and the public is beginning to notice that companies began using browsing habits and other data collected from users to make ads more personalized, and promotions for all kinds of products and services across the web (Pumphrey, 2012). An example would be the Facebook’s online ad exchange service, FBX, which helps advertisers display targeted ads through the use of cookies. Then, Facebook uses cookies to show targeted ads by placing cookies in user’s web browser or app. These cookies will track all the browsing data and send it back to Facebook. Information will be sent to Facebook when someone accesses Facebook page or accesses a third party website that has connection with Facebook. Therefore, some activists see the practice as an invasion of privacy since it relies so heavily on the collection of personal information (PrivacyPost, 2013).

Considering Kant’s theoretical approach, we can claim that the invasion of privacy is an unethical behavior. It is clear that the invasion of privacy cannot be universalized based on the First Categorical Imperatives. If it is allowed, then massive invasion of privacy will be happened and there will be no more privacy in social network. Same goes with the Second Categorical Imperative. Here, business must not exploit user’s data for their benefit because it is clearly use another person as a means to an end.

From Utilitarianism’s point of view, the invasion of privacy is unethical. From the Act Utilitarianism, “an action is good if its net effect is to produce more happiness than unhappiness.” Therefore it can be seen here, invasion of privacy brings greater unhappiness rather than happiness. People are unhappy with business collecting their information and exploiting it. Same goes with the Rule Utilitarianism; the moral rule itself is unethical. Invasion will never be moral, unless for certain circumstances. However for a lay man, invasion is immoral because we need to respect other people being.

However for SCT approach, different deduction can be made. The invasion of privacy can be ethical if it get the mutual consent from both parties. Users are willing to sacrifice some of their information to gain use of the social network services. However, business need to clearly state or make transparent of how they going to use with the collected information.

### 6.2. Viral Marketing

Viral marketing encourages individuals to pass along a marketing message to others, thus creating the potential for exponential growth in the message’s exposure and influence as one person tells two people, each of those two people tell two or three more people, and so on (Reynolds, 2014). The goal of a viral marketing campaign is to create a buzz about a product or idea that spreads wide and fast. A successful viral marketing campaign requires little effort on the part of the advertiser and the rest is by the users.

Considering Kant’s theoretical approach, we can claim that the viral marketing is ethical depends on how it works. A simple viral marketing can be allowed to promote business’s products. However it can be unethical if a massive viral marketing happened with some sort of exploitation elements. Here, viral marketing is inexpensive



as compared to conventional marketing. It can be unethical if it make users feel distracted. Users surf the network to gain information or socialize. However it can be stressful if everyone on the friend lists is making viral marketing. Also, from the Second Categorical Imperative, the business cannot use other people as a mean to an end. They need to give reward or something for those that promote their product.

From the Act Utilitarianism's point of view, the action of viral marketing seems bring more unhappiness than happiness. This is due to the natural expectation of people surfing the social network to gain information or to socialize. They did not expect to get those ads. If they want, they would rather surf the online shopping websites. Therefore, the existence of ads in social network makes people uneasy. However from the Rule Utilitarianism, there is no wrong on the moral rule of viral marketing. As long as it follow the rules and guidelines if exists, then the action is considered to be moral.

From the SCT's point of view, this action can be immoral because users have the social contract to respect other people. Here, user surf the social network for information and socialize. However when it comes to viral marketing, it breach the social agreement. People add their friend in the friend list to socialize. However when one parties start to promote product, it can be disgusting.

### 6.3. Spamming

Email spam is the abuse of email systems to send unsolicited email to large numbers of people (Reynolds, 2014). Most spam is a form of low-cost commercial advertising, sometimes for question-able products such as pornography, phony get-rich-quick schemes, and worthless stock. Spam is also an extremely inexpensive method of marketing used by many legitimate organizations. For example, a company might send email to a broad cross section of potential customers to announce the release of a new product in an attempt to increase initial sales. Spam is also used to deliver harmful worms and other malware (Reynolds, 2014).

Spam forces unwanted and often objectionable material into email boxes, detracts from the ability of recipients to communicate effectively due to full mailboxes and relevant emails being hidden among many unsolicited messages, and costs Internet users and service providers millions of dollars annually. It takes users time to scan and delete spam email, a cost that can add up if they pay for Internet connection charges on an hourly basis. It also costs money for Internet Service Providers (ISPs) and online services to transmit spam, which is reflected in the rates charged to all subscribers.

Considering Kant's theoretical approach, we can claim that spamming can be considered as immoral. Firstly, the action of spamming cannot be universalized due to massive lost or cost incurred by the user. User need to take times to clear the spam and search for real information. Users also need to bear the charge by ISP by the transmitted spam. In addition, spamming also is seemed as using another people as a mean to an end because they did not working hard. Business just simply subscribes the internet and sends the message. The ISPs is the one that working hard to transmit the message and sometimes incurring more cost due to heavy traffic causes by them. From the Act Utilitarianism's point of view, the action of spamming is wrong due to greater unhappiness rather than happiness. Here, business might happy with the market they gain due to spamming. However, people hate it. Most of the people did not want their social network being spammed with all of the advertising. Once again, people surf the social network to gain information and socialize. They did not want to see ads. From the Rule Utilitarianism, the moral rule of the action also is immoral. If everyone are spamming, then the real function of social network is gone. The social network will became a shopping website due to everyone are promoting products.

From the SCT's point of view, this action can be immoral because users have the social contract to respect other people. Here, user surf the social network for information and socialize. However when it comes to spamming, it breach the social agreement. People add their friend in the friend list to socialize. However when one parties start to promote product, it can be distracting.

### 6.4. Use of sexuality and violence

Sexuality and violence in advertising is the use of sex appeal and violence imagery in advertising to help sell a particular product or service. Sexually appealing imagery may or may not pertain to the product or service in

question. Examples of sexually appealing imagery include nudity, pin-up girls, and muscular men. Nowadays, sexuality and violence images are used to promote certain websites on the social network. Some users might share a link that contains sexuality and violence imagery in order to attract people to click the link and be forwarded to the targeted websites.

Considering Kant’s theoretical approach, we can claim that the use of sexuality & violence in advertising is completely immoral. From the First categorical Imperative, this action cannot be universalized due to its bad consequences. Many research conducted said that the increasing number of sexual and violence image and scene has affected human behaviors. Same goes with Second Categorical Imperative, the use of sexuality and violence image and scene is seems to be as exploiting another people as a mean to an end.

From the Act Utilitarianism’s point of view, this action brings more unhappiness rather than happiness. This is due to the bad consequences of the pornographic image and scene. No one is happy of it, except for those bad people. But for a lay man, it is a disgusting and must be banned. Same goes with the Rule Utilitarianism; the moral rule itself is immoral. The use of pornographic cannot be accepted in the society and also wrong according to the law. Therefore, this action is immoral.

From the SCT’s point view, this action can be immoral because users have the social contract to respect other people. The users on the social network are not only adult, but also teenager and kids. They cannot be introduced with pornographic. Therefore, the social network environment must be clean from all of those pornographic. Hence, this action is immoral

### 7. SM and Business Strategies as governed by Malaysia Cyber Laws Acts

In this section, we highlight how business transaction in social network governed by Malaysia Cyber law Acts. Overall picture of which acts related within each single task in sale process are illustrated as the following. This example is taken based on common online sale transactions. Sani (2014) agreed with the power of social network site especially for electronic commerce with the statistical market survey data showed social networking is the most prominent virtual platform dominating a staggering 71 percent of online activities across the nation, while instant messaging comes in second at 35 percent.

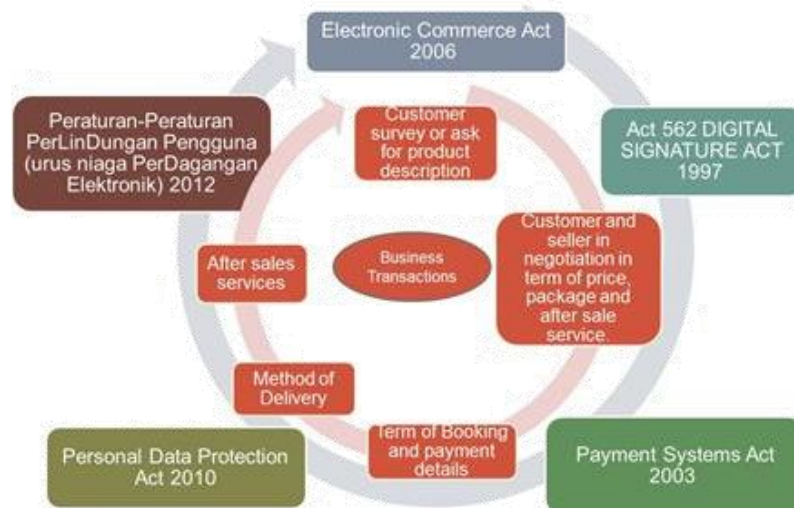


Fig. 2. Online Business Transactions and Malaysia related Acts.

#### 7.1. Electronic Commerce Act 2006

This act means for the use of electronic messages to fulfil legal requirements and to enable and facilitate commercial transactions through the use of electronic. Electronic message here can be derived from various platform or technology such electrical, optical, magnetic, electromagnetic, biometric, photonic or other similar technology. Overall Ayyappan (2013) summarized this act as involving individuals’ consents to use, providing

or accepting an electronic message either in single or multiple communications of a commercial nature and the supply or exchange of goods or services, agency, investments, financing, banking and insurance. No doubt, the evolution of Internet make business enable in online as illustrated in this literature by (Yang & Kim, 2010). Some revenue model can be generated by social media is advertising, subscription service that offering content, transaction fees on brokerage, manufacturer direct selling, affiliation referral service from any resulting sales and information intermediaries. Neri III, et al., (2012) did comparison between 18 countries including Malaysia to look into online auctions specifically the volume of ecommerce activity in global major sites name e-bay. Here, Malaysia is grouped in the first cluster together with most of first world countries and related finding showed countries that performed high in their Network Readiness Index with varied economies and Human Development Indices tend to be very active online merchants with highly recommendable feedbacks. In prompt to this act also in line with the Digital Signature Act 1997 as in section 5 defined digital signatures as “*any letter, character, number, sound or any other symbol or any combination thereof created in an electronic form adopted by a person as a signature*”. This clause also will accept other than existing digital signature technology which currently may only applicable with cryptography technology. Thus, with these two act electronic commerce become more trustable especially through social networks site which consumer considered it as a safe way to buy goods online because the goods being promoted and offered only among social friends that listed in one’s account (Amin & Noh, 2011).

## 7. 2. Digital Signature Act 1997

Digital Signature Act 1997 was enforced on October, 1, 1998, enabling law that allows for the facilitation of e-commerce transaction by providing an avenue towards secure on-line transactions through the use of digital signatures technology (Chong, 2008; Amin & Noh, 2011). The definition of digital signature as included in the section 2 of this act *is transformation of a message using an asymmetric cryptosystem such that a person having the initial message and the signer’s public key can accurately determine (a) whether the transformation was created using the private key that corresponds to the signer’s public key and (b) whether the message has been altered since the transformation was made.* Jalil and Pointon (2004) described digital signature is a process that uses encryption and algorithms to encode documents which the process creates identification of the person used or authorized for the process. Overall, this act provides a framework for the licensing and regulation of Certification Authorities, and gives legal recognition to digital signatures not only for electronic commerce but also important to legal operation such electronic contractual (Jalil & Pointon, 2004; Amin & Mohd Noh, 2011).

Amin and Noh (2011) also agreed digital signature legislation is becoming increasingly importance to modern transactions, particularly those conducted on the Internet. However, there is still pending issue keep debated by the scholar since it is been deployed. Kadir (2012), Saripan and Hamin (2011) and, John (2004) also highlighted the same issue in the deployment of this act which it only restrict to use specific technology and overlooked the use of biometric signature. However Kadir (2012) added biometric also still have uncertainty issue in term if reliability thus make cryptography technology became a definite choice of use. The second issue highlighted by Kadir (2012) about this act denial of using various levels of security that can suit different types and value of commercial transactions will lead to increasing in cost (Amin & Noh, 2011; Saripan & Hamin, 2011).

## 7. 3. Payment System Act 2003

As synchronization with signature digital signature legislature, another salient act to electronic commerce is Payment System Act 2003 that was forced on November, 1, 2003. It is a principal legislation which provides for the framework for the regulation and supervision of the payment systems and payment instrument in Malaysia.

In section 2 of this act was defined ‘Payment system’ is defined as any system or arrangement for the transfer, clearing or settlement of funds or securities. The definition of both payment systems and payment instruments makes the application of PSA wide and goes beyond financial entities which and payment instrument here can be tangible or intangible that enables a person to obtain money, goods or services or to otherwise make payment. It therefore includes credit cards, charge cards, debit cards, and e-money. The intangible instruments can be consider is a witness to this; and so are the words data, computer and computer output. PSA can even apply to communications service providers licensed under the Communications and Multimedia Act 1998 such as those services offered by way of pre-paid cards and commercial transactions using the mobile phones.

The Financial Services Act (FSA) and the Islamic Financial Services Act (IFSA) came into force on 30 June replacing the repealed Payment System Act 2003 (PSA). Both FSA and IFSA incorporates strengthened provisions to regulate payment system operators and payment instrument issuers in order to promote safe, efficient and reliable payment systems and instruments (BNM).

#### 7. 4. Personal Data Protection Act 2010

PDPA was forced on 15 November 2013 with the objective of protecting the personal data of individuals with respect to commercial transactions. This Act applies to any person who collects and processes personal data in regards to commercial transactions. The seven principles of the Act are general, notice and choice, disclosure, retention, security, access and data integrity. The Personal Data Protection Act 2010 covers the private sector only which is transactional data with government agencies can be extended and demanded if it applicable. The Personal Data Protection Act 2010 closely mirrors the principles in the European Union directive, with some variations that appear to adopt parts of the APEC Privacy Framework. According to the Malaysian PDPA 2010 the law is applicable to data users in three situations which either the data user is established in Malaysia or the processing is carried out by any person employed or engaged by the data user in Malaysia or if the data user is not established in Malaysia, but uses tooling to process personal data in Malaysia. All of these three situations are lawful to be judge under this act.

Williams (2009) mentioned the value of personal information towards business especially though social network where one of the medium that facilitation information flow with less limit of control in term of privacy. Thus, According to section 43 of the Malaysia PDPA 2010, data subject is given the right to prevent processing of personal data for purposes of direct marketing or other not related to the on-going business transaction. Even section 129 of the Malaysian PDPA 2010 prohibits the transfer of personal data to a place outside Malaysia unless protection is guaranteed. However, there is still has a loophole when cross several new online media and technologies such as cloud computing that personal data may leak from this diffusion of network (Abdolhamid & Manap, 2012).

In the current situation of Malaysia, Cieh (2013) observed that the Malaysian courts are increasingly willing to recognize the right to privacy and this law has significant impacts on how personal data is processed by organizations and business entities. Williams (2009) already predicted the competitive advantage of using social network in business strategy as he categorized the development of online sales growth ranging from mass consumerisation to mass prosumerism and next to mass socialisation services. Yang and Kim (2010) also had reviewed and agreed that advancement and proliferation of social network make social network provider integrate their social network sites with various business model and strategy. Still, as a consumer the awareness on privacy need to be taken into serious consideration because in a sophisticated online environment protecting and enforcing privacy will come at a major cost to business and a lack of privacy will creates risk for users.

#### 7. 5. Peraturan-Peraturan PerLindungan Pengguna (urus niaga PerDagangan Elektronik) 2012

Increasing number of internet frauds especially in sell transactions has made the government to enforce this act, where the cases rated as almost 10 percent for each month. In previous, most of online transactions cannot be taken further action due to limited information as evidence (Jessica, 2013). This act involved those who are involved in doing businesses regardless of medium types includes blog shop, bigger electronic commerce or even sellers using social network sites such Facebook, Instagram or et cetera. Through the act, all sellers should include all the details such as business or company registration number, email address, telephone or mobile number, business or postal address, details description of product, price include with taxes and additional cost, payment method, terms and conditions and terms of delivery including duration. Zuhuda and Azmi (2012) classified three positive impacts to buyers and sellers; trustworthiness, improve smooth transaction and complete information gathered. William (2009) also agreed with trust in business where user willing to share information correlates with increasing competitive advantage.

## 8. Conclusion

For both big and small firms, SM serves the purpose in better way as compared to the traditional media. It can help both big and small sized firms to advertise their products and services at totally free as a survival for economic recovery. Although SM offers great strategic advantages to SMEs, however, using the right strategy with the right content together with regular updating will determine the whole success of SM utilization. Although those related Cyber laws Acts had facilitated the growth of electronic commerce, there is still lacking in coping with the exchange of related electronic commerce technology in boosting business revenue. A further analysis is required to look at flaws in each act involving each of key players in the electronic commerce including the technologist and the legislature units need from time to time.

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# The Influence of Social Support and Relationship Quality to Social Commerce Intention in Facebook

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## Abstract

The emergence of social networking sites, particularly Facebook, encouraging the emergence of a new paradigm in electronic commerce (e-commerce), known as social commerce (s-commerce). S-commerce business model is currently a trend in the commercial world. This is because social networking sites offer features that support its role as a modern distribution channel. Based on literature studies that have been done, we obtained two factors in the behavior and interaction of social networking site Facebook users that affect a person's intention to make purchases through social media (social commerce intention), namely: social support (consisting of the dimensions of emotional support and informational support) and relationship quality (consisting of dimensions commitment, satisfaction, and trust). This study aims to conduct research on the relationship between social commerce intention, social support, and relationship quality, through a questionnaire survey conducted online to Facebook users by using purposive sampling method. Data results of the questionnaire that has been collected, then analyzed quantitatively by using partial least squares (PLS). From the analysis and quantitative study can be concluded that social commerce intention on Facebook as a medium s-commerce is affected by relationship quality on social media itself (in this case Facebook), and not directly affected by the social support that occurred on social media Facebook. However, it is known that social support (social support) on Facebook has a direct influence on the quality of the relationship (relationship quality) between the user and Facebook as a medium of s-commerce.

*Keywords:* electronic commerce; partial least square, relationship quality; social commerce; social network; social support; social commerce intention.

## 1. Introduction

Rapid technological developments to encourage the emergence of new business models that would alter the way consumers interact with the seller. Today, social networking sites into one trend for sellers and buyers to interact with each other (Kim & Park, 2013). The trend is to encourage the emergence of a new paradigm in e-commerce, known as social commerce (s-commerce) (Kim & Park, 2013). Stephen and Toubia (2009) define social commerce as part of e-commerce. If the e-commerce in general utilize the internet as a channel of interaction with customers, specifically in the use of social commerce features and potential in social networking such as Facebook, Twitter, LinkedIn, and so forth as a medium for buying and selling products or services. Social networking sites have been used extensively by the world community based on the data rate of penetration (Lenhart, 2009; Lenhart & Madden, 2007; Lenhart, Madden, Rankin McGill, & Smith, 2007; Madden, 2009; Statistics Canada, 2010). The potential that exists on social networking sites encourage the emergence of research in the area of e-commerce and social commerce (Gatautis & Medziausiene, 2014; Hajli, 2014; Kim & Park, 2013; Zhang, Lu, Gupta, & Zhao, 2014). Research from Hajli (2014) proposed a model of the influence of social support and relationship to the intentions of social commerce (Hajli, 2014). Meanwhile, the study of Kim and Park (2013), analyzing the influence of the characteristics of social commerce for consumer confidence (Kim & Park, 2013). Other studies analyze the factors that encourage consumers to participate in social commerce activity (Zhang et al., 2014). Looking at these studies, it is known that the business model of e-commerce and s-commerce is becoming a trend in the commercial world. This is because social networking sites offer features that support its role as a modern distribution channels (Kim, 2013). A study analyzing the user's motivation to social networking (Facebook) to use the site (Quan-Haase & Young, 2010). Unknown user motivations for using social networking sites which are for entertainment, the need for affection, fashion, problem sharing, sociability, social information (Quan-Haase & Young, 2010). From these studies, it is known that there is essentially no motivation of individuals using social networking sites for the activity of buying and selling goods. However, the current social networking sites into one medium to the activity of buying and selling goods that consumers favored because of its simplicity (Zhang et al., 2014), which is predicted to have the potential sale of up to USD 30 billion in 2015 (Booz & Co., 2011). It is then interesting to study further, that if there is a change of behavior (behavioral changes) of consumers to buy goods and services online with social networking sites.

Other studies analyzed the behavioral tendency of individuals to share the experience of shopping with her friend (Liang, Ho, & Turban, 2011). Activities to share the experience, is one of ways for individual to get support from others (Ridings and Gefen, 2004). From these results it is known that a person tends to seek out information and recommendation from a friend about a product before buying it. Furthermore, a review online (online review) someone on a product that is sold in the e-commerce environment, particularly in the social networking site is a very powerful strategy to generate online word-of-mouth (Duan, Gu, & Whinston, 2008). In the s-commerce customers can directly interact with the seller of such products and services. Additionally, customers are not just buying a product or service in the s-commerce, but also to share their shopping experiences directly in e-commerce, then the customer has an important role in e-commerce compared with e-commerce. Therefore, one's experiences can influence decisions and behavior to the shop. This is what came to be known as one of the viral marketing strategy, i.e. Word-Of- Mouth (WOM) (Camarero & San Jose, 2011). One of the keys to gain loyal customers is to build the trust of the consumer. The quality of the relationship is known as a key factor that plays an important role in customer loyalty (customer loyalty) (Hennig- Thurau T., 2000). Meanwhile, the quality of the relationship is determined by the confidence (trust), the satisfaction of the relationship (relationship satisfaction), and commitment (Hajli, 2014). Trust has been emphasized as one of the main determinants of customer loyalty from the literature (Jin, Park and Kim, 2008, Pavlou, 2003; Thatcher and George, 2004 in D'Ambra and Xiao, 2010). Unfortunately, at this time the trust (trust) becomes a major issue in the social commerce (Pavlou, 2003). Now it is known that few studies that discuss and analyze the topic of social commerce (Huang & Benyoucef, 2013). Based on the explanation above, this study aims to further analyze the factors that influence the intention to purchase a product through social networking sites (social commerce) in terms of the social relations and social support. In addition, this study also aims to compare the factors which most influence the consumer's social commerce transactions, whether social relationships or social support.

## 2. Literature Study

### 2.1. From E-commerce to Social Commerce

E-commerce is one of the evolutions of business models that adopt Web 2.0 technologies with the aim to increase consumer participation and obtain economic value (economic value) larger (Huang & Benyoucef, 2013). From these studies, it was mentioned that the key factors affecting the performance of platform-commerce consists of usability, information quality, website quality, and playfulness (Huang & Benyoucef, 2013). With the development of technology and web 2.0 social media, providing a great opportunity to change the e-commerce business models from product-oriented environment into social and customer-oriented (Wigand et al, 2008). As Stephen & Toubia (2009) mentioned, the e-commerce environment that utilizes the power of Web 2.0 has changed the market (market power) of the company to the consumer. Furthermore, today's consumers are becoming increasingly demanding with the service and the online application to be able to interact more social and interactive (Huang & Benyoucef, 2013). Technological development is then pushed the emergence of a new initiative known as social commerce. Social commerce is a combination of e-commerce and web 2.0 (Constantinides et al., 2008). Social commerce itself is a term that multi-disciplines, including marketing, computer science, sociology, and psychology (Huang & Benyoucef, 2013). Previous research states that social media or Web 2.0 is a marketing tool that helps in the process of decision-making and consumer shopping behavior (Constantinides and Fountain, 2008). From these explanations, social-commerce can be defined as an online-based application that supports web 2.0 collaborative interaction and communication, so as to assist the consumer in the process of making a decision to buy goods and services online. In general, the difference between e-commerce and social commerce lies in business goals, relationships between consumers, and system interactions (Huang & Benyoucef, 2013). In the perspective of the organization's objectives, e-commerce aims to maximize the efficiency of the strategy such as one-click buying, product search, product recommendations and catalog online so that it can be seen online consumer behavior. While the views of the relationship between consumers, e-commerce provides a platform independent and individually for one customer only, while social commerce allows for interaction and communication between the consumers with another consumer. Finally, in terms of system interaction, e-commerce is a platform that provides one-way communication, where information from a consumer rarely spread to other consumers. While social commerce adopt social and interactive approach that allows the consumer to share experiences with other consumers shop. Both research in the field of e-commerce and social commerce has evolved and continues to be an area of interest for further investigation. In social-commerce area, few studies have examined related consumer behavior, decision-making, and build relationships (relationship development) (Wigand et al., 2008; Grange & Benbasat, 2010; Kim & Srivastava,



2007; Kang and Park-Poaps, 2011). The study of Kim and Srivastava (2007) identify the social influences on consumer e-commerce. The study results show that the social influence have an influence on a person's decision to buy products online.

## 2. 2. Relationship Quality

Business is closely related to the advantages and trust. The greater the trust (confidence) of consumers to producers impact on increasing the profit that can be obtained by the manufacturer. In the virtual world, especially social commerce, trust becomes a major thing before making a transaction. Confidence can be seen from the online reputation (Yannis B & Chrysanthos D, 2003). Consumers will conduct a transaction if the store or company that offers goods is a business that can be trusted. Today's buyers are more selective in buying goods online. Buyers will look for reputable seller before buying (Qian Huang et al, 2014). Furthermore, consumers will be loyal if the seller has a good relationship with the buyer. The quality of these relationships can influence consumers to conduct transactions. Unfortunately, in the virtual world, the relationship between the seller and the buyer has differences with the seller and buyer relationships in the real world. Customers can not see directly the seller, or the goods and services offered. One important component in human behavior that each individual has a need to control, predicts, and understands the social environment (Gefen & Straub, 2004). They want to know how their behavior affects the behavior of others, and vice versa. In such interaction awakened a social relationship based on trust (trust). From the perspective of the business, trust is a set of social expectations (social expectations) are important and determining one's social behavior, which allows a person to respond or respond to other people's behavior (Zucker, 1986). Celeste (2013) proved the existence of moderating effect of culture (culture) and the mediating role of trust (trust) within an online community in the relationship between social interaction and intention to purchase the social commerce environment. Research shows that there are three main things in relationship quality namely: trust, relationship satisfaction, and relationship commitment (Kristof, De Wutf, Gaby, Odekerken-Schroder, & Dawn 2001). Trust related to trust in the seller. Trust becomes very important to make buyers use the services and products offered. This is certainly related to the desire to re-purchase of an item. The bottom line is that the growing commitment begins with a strong trust against a seller. The quality of relationships that last assessed based on satisfaction with the service, product, or the price offered by the seller.

## 2. 3. Social Support

Humans are known as social beings. Creatures who cannot live alone without interacting with other humans (Tahmasbipour & Taheri, 2012), it makes their social support interaction. Social support has sense that all sorts of support or sense of care provided by the nearby, such as family, friends, etc. (Frisch et al., 2014). Huang & Benyoucef (2013) proposed a model of social commerce which consists of four layers, namely individual, conversation, community, and commerce. The third layer in the model is related to community building. Community is a group of people who can support each other to support decision making. From this model it is known that social support key importance that support business functions in social commerce. This is because social support has influence in determining a person's behavior in the transaction. With the social media, social support in the cyber world menjadi an important thing. A person joining a community or social media networks to get the information, and references related to something (Wellman et al., 1996). The information presented can be knowledge, information, compliment, or complaint about a product or jasa. The influence of conversations in social media can make a good-value products or even worse depending on how the process of sharing experiences among the consumers with other consumers online (electronic Word Of Mouth). The information flows quickly, without defense lead login information so easily. Thus, the decision to choose something that is associated with the emotional and informational. Thus, it can be seen that social support can affect the emotional and informational consumers in the decision to buy products online. In social commerce environment, the prospective buyer the choice to purchase products online based on advice from friends or family who are members of a social community that they believe (Celeste, 2013). Therefore, it can be seen that the information and someone shopping experience that leads to confidence in the information and experience is expected to be distributed to others in an online community. Further explained that prospective buyers can trust the security of the online environment where everyone is there in the environment can be trusted. So it can be concluded also that social support also affects the quality of the relationship between consumers in the online community.

## 2. 4. Social Commerce Intention

There have been many studies related factors and the key success factors of social commerce (Gatautis & Medziausiene, 2014; Hajli, 2014; Huang & Benyoucef, 2013; Kim, 2013; Zhang, Lu, Gupta, & Zhao, 2014). Several studies have shown that the greater the trust someone to an online vendor pushing one's intention to buy

online (Gefen, 2000; Jarvenpaa, 1999), helps retain customers (Reichheld & Scheffer, 2000), and lack of trust have an impact on a person's reluctance to buy online (Honman, Novak TP, & Peralta, 1999). Furthermore, the study of Kim and Srivastava (2007) evaluated the social influence as a determinant of the consumer's decision to buy products online. The results showed that social influence significantly influence the consumer's decision to buy products online. From these studies, it is recommended to use different types of applications in order to increase social interaction, which consists of a friend's recommendation, review customers, communication, and writing and rating reviews. The purpose of the interaction is so that it can create a collaboration that can help in the decision to buy goods online through the experience of other online communities. Social commerce intention is a way of knowing how to anticipate consumers do something action. To pay attention to social commerce destination intention is to benefit from community and social networking. One study says 'intention to use' used the results of the investigation of the theory of reasoned action, theory of technology acceptance models and theory of planned behavior (Hajli, 2014).

### 2. 5. Partial Least Square (PLS)

Partial Least Square (PLS) is one method of data analysis that is quite popular among researchers in the field of information systems. This method is based on regression analysis of the data, which can be used to analyze the data with abnormal conditions (Chin, Marcolin, & Newsted, 2003). In addition, PLS also offers advantages can be used to analyze the data until a small (Ringle, Sarstedt, & Straub, 2012; Chin, Marcolin, & Newsted, 2003) and is suitable for exploratory research-based research (Chin, Marcolin, & Newsted, 2003).

### 3. Research Model

Referring to the model proposed by Hajli (2014), this study is an analysis of previous research and adopts the model to capture the phenomena that occur in society. Broadly speaking, this study aims to analyze the behavior of consumers to buy goods and services online through social networking sites as a medium of information. Based on the model Hajli (2014), this study uses research framework illustrated in Figure 1. The model hypotheses used consists of three components, namely, Social Support, Relationship quality, and Social commerce intention. Social support component consists of Emotional Support and Informational Support, while the quality consists of Relationship Commitment, Satisfaction, and Trust.

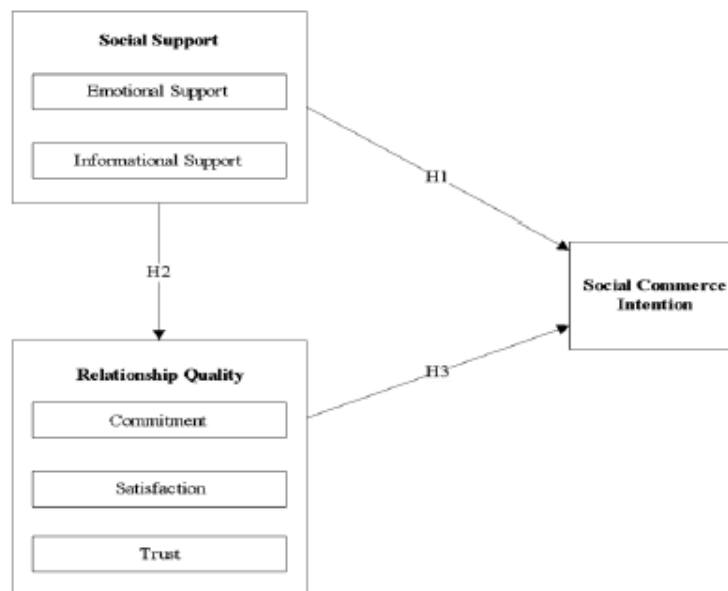


Figure 1. Research Model

### 3. 1. Hypothesis Development

#### 3. 1. 1. Social Support

**H1.** Social support on the social networking site Facebook has a direct influence on social intentions commerce users.

**H2.** Social support on the social networking site Facebook has a direct influence on the quality of the

relationship (relationship quality) between the user (buyer) and seller.

### 3. 1. 2. Relationship Quality

**H3.** Relationship quality has a direct influence on the intention of the user of social commerce Facebook

## 4. Methodology

Conducting this research, which aims to test the hypothesis that has been described in the previous section, this study using an online questionnaire conducted, starting on November 9th , 2014 until November 16th , 2014. The methods of sampling and questionnaires used are described in this part.

### 4. 1. Sample

The population in this study is all users of social networking sites in Indonesia. Users here include everyone who ever accessing/using s-commerce B2C website on Facebook good for the purpose of purchasing goods, compare prices, or just looking for information. If just know but have not accessed, then it is not included in the population. Demographics of respondents are presented in Table 1. It can be seen that all the respondents had access to social commerce site on Facebook. The number of samples is recommended to conduct research with engineering PLS (Partial Least Square) at least 30 respondents (Esposito, V., Chin, WW, Henseller, J., & Wang, H., 2010). In a period of about one week of data collection obtained samples for the questionnaire s-commerce by 60 respondents. This amount is sufficient to further processed using the PLS technique (Esposito, V., Chin, WW, Henseller, J., & Wang, H., 2010).

Tabel 1. Respondents Demography

Ages		Accessing Social Commerce site on Facebook	
17-24	50%	Yes	100%
25-32	35%	No	0%
32-39	10%	Frequency of Access Facebook	
40-47	5%	1-3 times	19
		3-7 times	26
		> 7 times	15

### 4. 2. Instruments Quantitative

Data obtained by distributing questionnaires to the respondents who had access to s-commerce. Sampling was done by purposive sampling in which respondents were selected by distributing questionnaires to people who meet the criteria of respondents possible. Questionnaire was developed to take advantage of Google Forms (online questionnaire Services provided by Google), so that the distribution of questionnaires conducted online. Reason questionnaire online is because it is quite efficient in terms of time, effort, and cost. Questionnaires distributed by e-mail, social networks like Facebook, Twitter, and online forums like Kaskus (Indonesia's largest online community forum). In order to get to the target questionnaire respondents were right on target, then the previous prospective respondents asked whether he had access to the site s-commerce on Facebook. If not, then the potential respondents do not need to fill out a questionnaire. Questionnaire was developed using a Likert scale with reference to the research Hajli (2014). Likert scale is a psychometric scale commonly used in the questionnaire, and is the most widely used scale in the form of a survey research. This questionnaire using seven scales. Respondents are required to choose one of the seven scales. Later data from Likert scale will be processed to analyze how the results.

### 4. 3. Data Analysis

From the results of a questionnaire that has been collected, the authors then performed an analysis of the questionnaire data using PLS (Partial Least Square). Data analysis was done in several stages (Esposito, Chin, Henseller, & Wang, 2010):

1. Design structural models (inner model),
2. Design the measurement model (outer model),
3. Construct the path diagram,
4. *Goodness of Fit*
5. Hypothesis Test.

## 5. Result

### 5.1. Model Measurement

Approach to analyzing the data is to evaluate the measurement model for later evaluation of structural models. Evaluation of measurement models aimed to evaluate the reliability and validity, while the structural evaluation of the model was performed to evaluate the research hypotheses and models of fitness. Data analysis was performed using PLS and use SmartPLS application assistance. The research model which has build using SmartPLS can be seen in Appendix Path Diagram. Validity test was conducted on the test convergent validity and discriminant validity. Convergent validity test is a test for an indicator of whether it can explain the variable by looking at his loading factor. If the loading factor worth below 0.5, then the indicator cannot explain the existing variable (Esposito, Chin, Henseller, & Wang, 2010). Discriminant validity test is a test to look for the uniqueness of each variable, where it is opposite to test convergent. If the test converges to look for the relationship then test the discriminant to find how much is different variables. To test the convergent validity, reflexive indicators can be seen from the correlation between the scores of items / indicators with construct scores. Individual indicators are considered valid if it has a correlation value above 0,50 (Esposito, Chin, Henseller, & Wang, 2010). Convergent validity of the test results, it is known that the value of the item indicator loading factor  $\geq 0.50$ . Discriminant validity of measurement can be seen in the AVE (0.50). From the measurement results this model get AVE score  $\geq 0.5$ . Sedangkan, for reliability measurement can be seen in the value of Cronbach Alpha (CA  $\geq 0.7$ ) and Composite Reliability (CR  $\geq 0.7$ ). On this basis, it can be concluded that the item indicators has scale validity and reliability are good (Esposito, Chin, Henseller, & Wang, 2010). Table 3 shows the results of evaluation measurement model consisting of standardized item loadings, average variance extracted (AVE), the composite reliability (CR) and Cronbach Alpha values (Esposito, Chin, Henseller, & Wang, 2010).

Table 3. Standardized item loadings, AVE, CR and Alpha values

Variable Name	Code	Standardized Loading Factor ( $\geq 0,5$ )	AVE	Cronbach Alpha Value	CR	R <sup>2</sup>
Relationship quality (RQ)	RC1	0.750	0.800	0.930	0.942	0.382
	RC2	0.581				
	RC3	0.740				
	RS1	0.852				
	RS2	0.906				
	RS3	0.879				
	RT1	0.825				
	RT2	0.819				
Social support (SS)	RT3	0.845	0.782	0.897	0.918	-
	SE1	0.626				
	SE2	0.769				
	SE3	0.755				
	SE4	0.767				
	SI1	0.855				
	SI2	0.856				
Social commerce intention (SCI)	SI3	0.843	0.812	0.830	0.887	0.564
	IB1	0.783				
	IB2	0.888				
	IB3	0.862				
	IB4	0.716				

It also tests the discriminant validity by comparing the value of the square root of AVE with correlation values between variables. A variable is said to pass the test of discriminant validity if the value of the square root of the AVE variable is greater than the correlation with other variables. Table 4 displays the value of the square root of AVE comparison with the value of the correlation between variables. Based on the table, it can be seen that there is no correlation between the variable values that is greater than the value of the square root of the AVE. So it can be said that all the variables pass the test of discriminant validity.

Table 4. Comparisons between AVE value with Correlation value

	RQ	SS	SCI
RQ	1.000		
SS	0.618	1.000	
SCI	0.744	0.539	1.000

5.2 Structural Model Test This stage consists of two sub-stages, stages of due diligence measurement models and structural models feasibility stage. Test the feasibility of measurement model using goodness of fit test. The goodness of fit test that will determine how is well the model with data obtained. Test the feasibility of this model of measurement is done to see how well the manifest variables in the research model. Goodness of fit test basis adjusted for absolute fit indices, incremental fit indices, and parsimony fit indices. Hypothesis test (structural model) based on the results of the path analysis has been done before. Hypothesis testing is done by looking at the following criteria:

- Value CR (critical ratio) > 1.67 with a significance level of  $p < 0.05$  (one tail), then the hypothesis is accepted (Urda, 2010)
- Value CR (critical ratio) < 1.67 with a significance level of  $p < 0.05$  (one tail), then the hypothesis is rejected (Urda, 2010)

Structural model test begins by looking at the value of R2 which is owned by each endogenous variable as the predictive power of the structural model. R2 values are presented in Table 4. Based on the table for the entire value of R2 endogenous variables can be quite good because its value is in the range  $0.333 < R2 \leq 0.670$  (Esposito, Chin, Henseller, & Wang, 2010). RQ endogenous variable has a value of R2 is 0.382, which means that 38.2% of the variance of relationship quality (RQ) is influenced by social support variables (SS), while the rest is influenced by other factors. As for the endogenous variables SCI has a R2 value of 0.564, which means that 56.2% of the variance of the variable social commerce intention (SCI) is influenced by variables that independent knowledge is relationship quality (RQ) and social support (SS) (Esposito, Chin, Henseller, & Wang, 2010).

Table 5. Hypothesis Test Results

Hypothesis		Result
Hypothesis 1SS → SCI	<i>Social support → S-commerce Intention</i>	Rejected
Hypothesis 2SS → RQ	<i>Social support → Relationship quality</i>	Accepted
Hypothesis 3RQ → SCI	<i>Relationship quality → S-commerce Intention</i>	Accepted

Furthermore, the structural model test carried out with a view of the value of the path coefficient, the value of t (t-value) is generated using Bootstrapping algorithm to determine the admissibility of the proposed hypothesis (Esposito, Chin, Henseller, & Wang, 2010). From Table 5 it can be seen that the hypotheses 2 and 3 received, whereas the first hypothesis is rejected. From the analysis of T-statistics in Table 6, it can be seen that there are several variables that significantly influence the observed variables. To variable social commerce intention (SCI), it is known that only influenced by relationship quality (RQ). Meanwhile, a social support variable (SQ) has no contribution to social commerce variable intention (SCI). However, it is known that the social support variable (SS) has a correlation to the relationship quality (RQ).

Table 6. Structural Model Test Results

Hypothesis	Path	Path Coefficient	T Statistics ( O/STERR ) ≥ 1.67	Sig Level
H1	SS → SCI	0.129	1.226	Insignificant
H2	SS → RQ	0.618	9.034	Significant
H3	RQ → SCI	0.665	6.813	Significant

## 6. Discussion

Based on the results of the analysis of the causal relationship between the latent variables using PLS structural model test results are obtained as the following hypothesis:

**H1.** Social support (social support) on the social networking site Facebook has no direct influence on the social intentions commerce (social commerce intention) users.

This study does not prove that social support (social support) has a direct influence on social commerce intention

on the social networking site Facebook. This hypothesis is contrary to research conducted by Hajli (2014). In this case, does not mean the customer s-commerce Facebook does not have a tendency to share the experience of shopping at these sites with friends. However, reviews and recommendations from others (friends) on Facebook cannot be used as the main reference someone into buying products online through social commerce Facebook. This is because they doubted the truth and credibility of the reviews or recommendations given by other people on Facebook is true and credible. Moreover, the features of Facebook that still allows one to create fake accounts, so not necessarily the recommendations and reviews given by other people right. There is a possibility of review given by another person aiming to attract buyers, but perhaps giving the review had never purchased the items that do not match the original. In addition, it is also possible reviews or recommendations are credibility among sellers in social commerce business, given the current business competition is getting tougher.

**H2.** Social support (social support) on the social networking site Facebook has a direct influence on the quality of the relationship

(relationship quality) between the user (buyer) and seller.

This study proves that social support (social support) has an influence on the quality of the relationship between buyers and sellers on the social networking site Facebook. This hypothesis is consistent with studies conducted by Hajli (2014). In this case, of course, social support given to someone has a degree of truth, accuracy, and good credibility. Someone believed in the truth and credibility of the seller from others that they believe in sharing the experience of shopping in social commerce site Facebook. Thus, social support from people you trust, both informational and emotional nature, has an impact on the quality of the relationship between buyers and sellers in the business of social commerce.

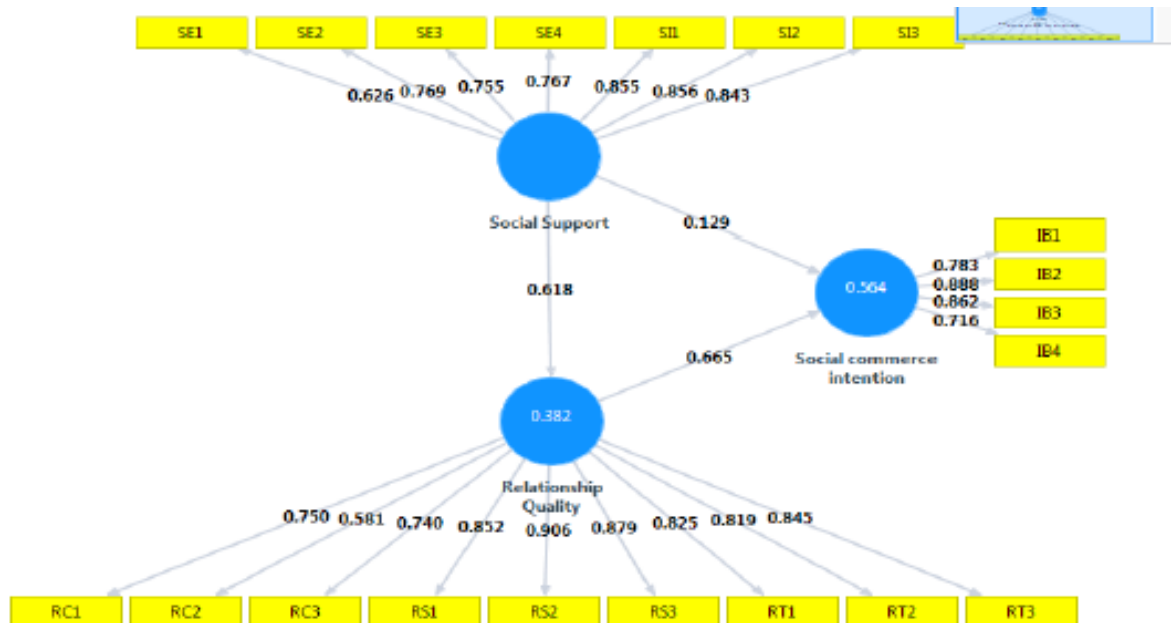
**H3.** The quality of the relationship (relationship quality) on the social networking site Facebook has a direct influence on social intentions commerce (social commerce intention) users.

This study proves that the quality of the relationship (relationship quality) has a direct influence on the quality of the relationship between buyers and sellers in social commerce site Facebook. This hypothesis is consistent with studies conducted by Hajli (2014). It shows the image of a brand owned up able to build trust users to increase their intention to buy the product, and so is the customer satisfaction and loyalty as the first customer and repeat customer, online social commerce site Facebook will be maintained. The buyers, who have a good relationship with the seller, get the greater reputation in the eyes of buyers (consumers) (Yannis B & Chrysanthos D, 2003). This supports previous research studies showing that greater trust someone to an online vendor pushing one's intention to buy online (Gefen, 2000; Jarvenpaa, 1999) and helps retain customers (Reichheld & Schefter, 2000).

## 7. Conclusion

From the observation of variables, namely social support (social support), the quality of the relationship (relationship quality), and the intention to social commerce (social commerce intention), we discovered that the only factor of the quality of relationships (relationship quality) which has a positive and significant effect on intention to purchase online through social commerce site Facebook. In this research be discovered that social support (social support) that is felt on Facebook does not have a direct influence on the social commerce intention, but has a direct influence on the quality of the relationship (relationship quality), which includes trust, commitment, and satisfaction of Facebook users to make buying and selling via Facebook as a medium s-commerce. Therefore, it can be concluded that although social support on a social media does not have a direct impact, but has the effect of social support in building quality relationships Facebook users as media s-commerce, which in turn affects the buyer's intention to purchase products online through website Facebook as social media commerce.

Appendix. Path Diagram



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# The Network Mapping Analysis of National Cyber Security Policy within the Frame of Information Security

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## Abstract

The study present a network mapping analysis of National Cyber Security Policy. Different with the construction of cyber security policy previously studied, the research construct cyber national security policy in a three-tiered institutional framework, i.e. in the levels of policy, organization, and operation, using the approach of Social Network Analysis. The result shows that Indonesia at the present does not have a *lex specialis* National Cyber Security Polic. In fact, the cyber security policies in various countries show that each country has a *lex specialis* cyber security policy in accordance with the potential of threats, embedded in the context of Information Security. Government is the actor that plays a crucial role since it can access other actors. The importance of government role, on the other hand, represents the absence of specific institutions under the government that has the authority for cyber-security in Indonesia at the present. Even though not necessarily forming a specific institution, the product of policy must affirmatively appoint one of the government structures or institutions as the leading sector. However, in the context of state security system, potentials of threat are something embedded in the government obligation; state defence is confidential and a priority. Therefore the uncertainty of the role of public as the subject is too great and potentially endangers Information Security.

*Keywords:* national cyber security policy, information security, social network analysis

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## 1. Introduction

In the age of networked intelligence (Tapscott 1996), the advancement of Technology, Information and Communication (TIC) is crucial for the competition in global markets. We live in an era of borderless world (Friedman 2007). The revolution of TIC has demonstrated to have an impact on the widening economic and social space; it is even capable to improve human development (UNDP, 2005). According to Sullivan (2009), TIC gives a great chain-effect to economic as well as social change in a community, since more people are interconnected (ITU, 2012). TIC has become a a node of various other sectors such as energy, food, health, transportation, etc. In the current era, such sectors will not be able to be utilized to the maximum in the absence of information technology (Clemente, 2013). Information technology plays a role as the main linking instrument among the various sectors. The attack toward cyber space is a logical consequence from the development of information technology. Cyber space is known as a sector that has its own characteristics; cyber space has a very close relationship with other sectors. Cyberspace becomes the linking instrument between sectors, reducing the barrier between the sectors. According Clemente (2013), cyberspace can be visualized as the tip layers or nervous system that runs through all sectors, and finally allow these sectors to communicate and carry out their respective functions. Similarly in Indonesia, The problem of cyber security as one of the focuses of national threats requires priority attention. To that end, it is necessary to conduct a mapping analysis of the existing national cyber security policy in Indonesia at three levels, namely the policy level, organizational level and operational level (Bromley, 1989).

## 2. Literature Study

There are a number of studies, analyzing national cyber security policy in various countries. The study by Muniandy and Muniandy (2012) evaluates the cyber policies in Malaysia and identifies things that are necessary to create a safe cyber world. The results of this study recommends the need for improvements to the cyber security policy in Malaysia for its better future direction. In the meanwhile, the study of Cyber

Security in Africa shows the importance of considering aspects of policies, procedures, awareness, research and technical expertise in cyber security (Kritzinger and von Solms, 2012). This study recommends the importance of incorporation among all relevant aspects as a cyber-security framework in reducing the number of cyber crime, especially for users with lack of cyber knowledge in Africa. In the meanwhile the study on "The American and Russian Approaches to Cyber Challenges" was conducted by Fayutkin, D (2012). This study analyzes the general approach used by the United States and Russia in responding to cyber warfare based on the relevant official documents, discussions, and research. The study shows (1) differences in the definition of cyber security in the United States and its position in the concept of national security, and (2) the approach to cyber warfare and cyber security.

In addition, there are several studies on the importance for a state to pay attention to its cyber security. Haller, *et al.* (2010) conducted a study on the government's ability to manage cyber risk and to focus on cyber world protection. A study by Kelly and Hunker (2012) shows the presence of factors that influence the development and implementation of cyber security policy. While the study by Tabansky (2012) concludes that cyber crime potentially becomes a serious threat to national security. Various results of those studies show that the development of information technology gave rise to one of the most recent spatial vulnerabilities for national security. Considering that all sectors have been interconnected to the space of information technology (they even tend to be dependent on this instrument), information technology becomes a central point which, if attacked by a form of cyber threats, has the potential for massive damage to the various sectors related to the space of information technology or cyberspace (Brenner, 2013). Other literature mentions cyberspace as all forms consisting of networked digital activities, including contents and actions through digital networks (UK Cyber Security Strategy, 2011). The existence of very large interconnection between the various sectors in the cyberspace becomes one of the challenges in the fight against the potential threat of cyber space. There are difficulties of its own, especially regarding the priority/main critical points that must be protected in the cyberspace. Difficulties also arise in drawing a clear line between these critical points.

In relation to the three tiers of institutional policy, Bromley (1989a:39) viewed that "institutions enable daily life to proceed with a minimum of repetitive negotiation; institutions reduce transaction costs ... the existence of institutions Provides the regularizing dimension of daily human contact that Becomes the status quo, and that therefore Becomes the focus of attention when the collective decision must be taken to respond to new scarcities, new tastes and preferences, and new opportunities." Bromley's opinion provides understanding that institution determines the nature and amount of transaction cost.

Bromley saw institution as a consensual arrangements or patterns of behavior agreed through collective conventions (informal rules) and regulations (informal rules and entitlements) which clearly defines the choice sets applied to individuals and groups. The institutional meaning has the function to ensure a transaction. According to Baldin and Cave (1999), the concept of regulation is associated with a binding set of governmental rules performed by public agencies (Dill dan Berkeens, 2010). "The concept of regulation is most often associated with a binding set of governmental rules to be applied by a public agency over specific activities – the so-called command and control perspective. But regulation can also be understood more broadly as all state actions designed to influence social behavior valued by the public" (Baldwin and Cave, 1999). In explaining the importance of institution, Bromley (1989a) provides a general explanation of the policy process. According to Bromley (1989a: 32), the public policy process can be viewed as a hierarchy that has three levels: policy level, organizational level, and operational level.

### 3. Methodology

Social Network Analysis (SNA) has become a new trend in recent years. SNA is a method to achieve the

analysis results of almost all group interactions. Different sizes are determined to analyze the network cohesion, density and dimensions, and individually analyze each important actor with influence on the social networks (Wasserman and Faust, 1994). Social Network Analysis is a sociological paradigm to analyze the pattern of the social relation structure ( e.g., Scott, 1991, Wasserman and Faust, 1994, Wellman and Berkowitz, 1988).

SNA sees the structure of social relations within a group to uncover the formal relation among actors, such as communication, awareness, confidence, and decision-making. The using of SNA allows us to identify, examine and support the process of knowledge transformation in social networks (Marsden, 2002, Müller-Prothmann 2006, D'Andrea *et al* ., 2010) at the National Cyber Security Policy.

The use of SNA method for analyzing a network requires an understanding of basic measurement principle of mathematical calculations to determine the connectivity patterns in the network analyzed. The basic measurement includes among others: network size, degree, density, reachability, connectivity, distance, and the flow of information. Furthermore, the visualization of SNA aims to describe the relation between actors interacting in the policies related to the implementation of cyber security. In this visualization, the actors frequently accessed and accessing other actors will be visible. It would be known how many actors are significant among other actors in the implementation of policies related to cyber security.

#### 4. Learning from the National Cyber Policy in Other Countries

In recent years, there are large groups around the world that target a large number of companies in various sectors. These various forms of trend use cyber space instrument as the main channel in implementing their actions. These cyber security experts are themselves aware of the threat posed by the development of technology and information. However, according to Rollins and Wilson (2007), the threat of cyber world has limitless target, both military and civilian targets. Based on the research by Kaspersky Lab and B2B International, 91 percent of organizations have been victims of cyber attacks, at least one time in the past 12 months ( *Kompas*, 12/31/2013). The rest, became victims of targeted attacks, i.e. planned attacks aimed at infecting network infrastructure of particular company or organization. Even in 2013, some spyware attacks associated with various government agencies are revealed. The presence of cyber security and defense policy is increasingly considered crucial, especially for countries that have used high technology. The United States became the first nation that seek to reduce potential cyber threats.

Beginning in the 1990s, the United States began to focus on cyber threats (Brenner, 2013), especially since the era of Barack Obama. The main actor of the cyber policy is the President, the Department of Defense, the Military and Parliament. Barack Obama himself gives great attention to the threat of cyber security. In fact, based on the official website of the White House, he established the Executive Branch Cybersecurity Coordinator who not only routinely meet the President, but also implement the mandate of Comprehensive National Cybersecurity Initiative (CNCI) set in January 2008 by President George W. Bush (Brenner, 2013). The purpose of the CNCI is creating efforts of forefront defense against cyber threat in the present era, to safeguard against various types of threats, and to strengthen the cyber environment in the future. Even so, the US itself is still experiencing some hacking in cyber systems covering several sectors, such as business ([www.theweek.com](http://www.theweek.com), 07/10/2014), banking ([www.businessinsider.com](http://www.businessinsider.com), 7/10/14), and security ([www.theatlanticwire.com](http://www.theatlanticwire.com), 10.07.2014). This shows that despite their security efforts through regulations, there is still a cyber hacking attempt from the US based sites.

Other countries such as China, Malaysia, Japan, etc have also made the issue of cyber security as a priority focus of national threat. In a different dimension level, the awareness of cyber security has not been too

widespread in the public. Cyber threats not only target the cyber infrastructure that supports national security, but also the things endangering individual life.

##### 5. The Mapping of Cyber Policy in Indonesia in terms of National Cyber Security Policy

In light of the theory of Policy Process as a Hierarchy (Bromley 1989: 33), the network mapping analysis of National Cyber Security Policy at the policy, organizational and operational levels in Indonesia—based on a book entitled *Peta Jalan Strategi Pertahanan Siber* (Cyber Defense Strategy Roadmap) published by the Ministry of Defense (2014)—shows some aspects, i.e. regulation, governance, national critical infrastructure, and human resources. Regulation is needed to regulate the authority and responsibility of all components related to the cyber realm, either directly or indirectly. This is due to different interests of people, institutional organizations, private sector, governments, and the international community in the use of information and communication technologies.

The analysis of National Cyber Security Policy uses the SNA method to study the involved stakeholders (actors) and see how the relation occurs with the existing regulations. The results show that there are 146 actors and 109 relations/links that already exist in the regulations regarding cyber security, referring to the aforementioned book, *Peta Jalan Strategi Nasional Pertahanan Siber* (2014). Having found the actors, the actors who become the subject and the object are then determined.

The determination of subject and object is required to decide who the accessing and accessed actors are. The subject and object are used to analyze the in-degree and out-degree in SNA. Furthermore, the relations among the actors are associated with the predicate or verb (link) that connects between the actors. Based on the identification of policies related to cyber security, as much as 109 links of predicates or verbs are obtained.

The results of data processing by SNA in Figure 1 shows that significant actors are respectively the public, government, military, President (in red circle). This means that policies related to the implementation of cyber security are dominated by networks originating and leads to such actors. In contrast to other countries, in Indonesia the public has a dominant role. In the cyber security regulations, the actor that should be most important is supposedly not the public, given the immense potential attacks on cyber space. Threats to cyber space varies greatly, both from the level and target of threats. There should be cyber threat awareness that may threaten national security. According to Coding (2010), the identification of cyber threats is visible in the forms of like cyber crime, botnets<sup>1</sup>, attacks against financial institutions, the spread of Multi Purpose Malcode, state-sponsored cyber activities, and hacking activities.

In addition to the four actors, in the central circle there are also other actors, namely the adjacency matrix showing the links between twelve actors. If you notice, among the twelve actors considered to supposedly have an important function and role in cyber security, there is relatively no link occurring between them, as shown by the adjacency matrix. This is because the 12 actors are not found from one particular policy, but rather from some cyber security related policies. For example, the military is found in the regulation concerning national defense. While the Ministry of Communication and Information is found in the regulation concerning telecommunications. It would be different if the twelve actors are found in one particular cyber security policy; we could trace the inter-responsive relations among the twelve actors. The same kind of relation also occurs in 131 other actors that are not shown since these actors are considered not to have an important role in the implementation of cyber Security policy in Indonesia. For illustration, Law No. 34 of 2004 concerning the TNI (military) shows an actor of Honorary Board of Officers (DKP), nevertheless displaying that the relation between the DKP with other actors is irrelevant to the purpose of this writing (the issue of cyber security).

In addition to the four actors, in the central circle there are also other actors, namely the House of

Representatives (DPR) and the Police. However, the visualization shows that both actors are not frequently accessed or access other actors. On the policies related to cyber security, both actors are only mentioned in several policies. DPR is only mentioned in the Law No. 36 of 1999 on Telecommunications, Law No. 14 of 2008 on the Openness of Public Information, Law No. 2 of 2002 on the National Police, Law No. 3 of 2002 on National Defense, Law No. 15 of 2003 concerning the Stipulation of Government Regulation in Lieu of Law No. 1, 2002 on Combating Terrorism into Law No. 34 Year 2004 on the Indonesian National Armed Forces, and the Law No. 25 of 2009 on Public Service. While the Police is only mentioned in Law No. 36 of 1999 on Telecommunications, Law No. 2 of 2002 on the National Police, Law No. 3 of 2002 on National Defense, Law No. 15 of 2003 concerning the Stipulation of Government Regulation in Lieu of Law No. 1 of 2002 on Combating Terrorism into Law No. 34 of 2004 on the Indonesian National Army.

The results of data processing by SNA show at least three stakeholders are not clearly regulated in the existing regulations, namely, the public, the government and the National Council of TIC. Supposedly, the government is an actor who has an important role in determining policies on information security. This study also shows that policies related to cyber security (adapted from several regulations in a number of countries) have not regulated operational actors in terms of cyber security implementation in Indonesia that should also be played by the police. The existing policies have not clearly set out the role of the police as the holder of authority in cyber security in Indonesia. It is traced from some policies directly related to the implementation of cyber security. For illustration, in Law No. 3 of 2002 on National Defense, the Police is only authorized to help the military in the defense of the country. The authority is also not mentioned in the policy concerning the Police themselves. In Law No. 2 of 2002 on the National Police there is no single article mentioning the police authority in the implementation of cyber security in Indonesia.

In the context of information security—in which a potential of threat is something embedded in the government obligation and the national security and defense is confidential and a priority—the obscurity of public role as a subject that is too large, potentially harmful the State Defense. Therefore a harmonization is required to fill the regulation of stakeholders by rearranging the model of National Cyber Security Policy in the Information security that is lex specialist in nature. This policy remodeling uses "The Policy Process as a Hierarchy" by Bromley (1989) on three levels. First, the policy level by the preparation of Law concerning the National Cyber Security that is lex specialist. Secondly, the organizational level by making government regulation and Presidential Regulation. Third, the operational level by preparing Background Paper of RPJMN 2015-2019 for the sub-division of Cyber Security and compiling Minister Regulation relevant with Cyber Security.

## 6. Conclusion and Recommendation

The many classification of actors is due to the fact that the National Cyber Security Policies, analyzed with reference to Peta Jalan Strategi Pertahanan Siber, do not explicitly mention its actor involved or its leading sectors. In fact, the government is the executive body consisting of the President and his staffs. The unspecific/unclear mention of actors could potentially lead to an overlapping or else, the vacancy of role due to the uncertainty of task, responsibilities, and functions of each agency/ministry in the National Cyber Security Policy.

Recommendations resulting from this research: first, the next Cyber Security research can conduct an analysis of the realm of cyber, cyber threats, cyber attacks, cyber crime and cyber law. Second, at the policy level there is a need of immediately undertaking regulatory reform by taking into account the role and functions of each actor. Third, the government needs to clarify the specific institution that becomes the leading sector in charge of cyber security in Indonesia at the present. The position of the government as a single actor will lead to lack of clarity in the implementation and responsibilities of policies. The policy product should explicitly designate one governmental structure or institution as the leading sector. Fourth, it

is necessary to clarify the position and role of the public who turns out to be a significant actor in accessing other actors, including the government. However, in the context of information security in which the potential of threat is something embedded to the government obligation, and the national security and defense is confidential and a priority, the role of the public as a subject should not be too big. Fifth, there is a need to give the National Council of Information Communication Technology (DeTIKNas)—as a state agency whose vision is to accelerate the growth of information and communication technology in Indonesia efficiently—a more strategic role in managing TIC activities so that in formulating national TIC policies it conducts the synchronization with TIC programs in all ministries/institutions directly in contact with the local government and the community of users. Sixth, the TIC activities related to Cyber Security should be optimized through the provision of both formal and informal legal space in the synchronization of cyber security policy.

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# The Relationship of Core Values and Human Capital Drivers in Improving Organizational Performance Case Study at Tax Offices in Area of Directorate General of Taxes Regional Office of West Java I

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## Abstract

The main source of revenue to finance the state revenue and budget of the Republic Indonesia is derived from taxes. The tax revenue realization to state budget realization ratio for the last four year is always above 60%. Unfortunately, the amount of expected revenue from the taxation sector cannot be realized. The tax revenue realization to tax target ratio of tax offices in area of DGT Regional Office of West Java I, showed the similar condition. This should get serious attention with doing an evaluation factors that can affect employee performance which accumulate on organizational performance in tax offices in area of DGT Regional Office of West Java I. The purpose of this research is to identify the effect of Core Values (CV) to Human Capital Drivers (HCD), identify the effect of CV to Organizational Performance (OP), identify the effect of HCD to OP and identify the indicator of the variables that had significant impact, and giving recommendation for improvement. Result from path analysis, using smartPLS software, shown there is a positive correlation between CV to OP (0,303), CV to HCD (0,680) and HCD to OP (0,503). From matrix analysis, some of the CV's sub variable and almost all the sub variables in HCD are in the urgent quadrant, so the improvement initiatives are focus on that variables.

*Keywords:* Core Values, Human Capital Drivers, Organizational Performance

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## 1. Introduction

### 1.1. Background

Nowadays, central and regional government organizations in Indonesia are required to improve its performance in delivering public services more effectively and efficiently to the public. Performance is an overview about the level of achievement in implementation program or policy activities in realizing the goals, objectives, vision and mission of the organization.

Measurement of public sector performance is not simple, it's very complex and multidimensional. The difference between public sector and private sector measurement is the existence. The private sector/business existence is to create wealth and prosperity for its owner while the public sector existence creates public welfare by providing the best service. Public sector organizations are often depicted unproductive, inefficient, have low quality, poor innovation and creativity, as well as various other criticisms. The emergence of such criticism and demands to deliver public services effectively and efficiently to the public encourage the government to reform public sector management.

Indonesian crisis in 1998 had forced the reformation of Indonesian government in all aspects of national life including politics, law, economics and bureaucracy. The Ministry of Finance was one of the first government institution that has done the reformation. This reformation began from the process of reinventing organization by restructuring the organization that has been done in the beginning of 2002 through: organizational management, business process improvement, and the human resources management improvement based on the Decision of the Minister of State for Administrative Reform Number 41/M.PAN/2/2002.

As one of the directorates under the Ministry of Finance, in order to improve service to the community and increase tax revenues, Directorate General of Taxes (DGT) had started the reformation process in 2002. There are three important pillars in the implementation of bureaucratic reform, started with the reform of the Organization, Business Processes and Information Technology, and Human Resources. After the three major improvements, DGT is expected can run the implementation of good governance.

## 1. 2. Business Issue

The main source of revenue to finance the state budget of Republic of Indonesia is derived from taxes. Thus, DGT as the agency tasked to collect tax revenue from the community are particularly vital for country sustainability. Unfortunately, the amount of expected revenue from the tax sector cannot be realized. For example in year 2013, the tax revenue realization to target was 93,63%. The difference in percentage that cannot be met by DGT reach 6.37%, which cannot be considered as insignificant because the value of the percentage difference equals to 550 trillion rupiahs. Taxes is the main source of Indonesian state budget, so everybody nowadays pay more attention in order to meet the tax target that has been set in state budget. The achievement in tax revenue realization of 100% from the tax revenue target which is stated in the laws is a must to finance Indonesian government operations. Tax revenue in Tax Offices in area of DGT Regional Office of West Java I show the same condition. Based on the data of Key Performance Indicators (KPI) DGT Regional Office of West Java I, which is the combination of all tax offices in the regions, there is difference in tax revenue realization with tax revenue target that has been set.

From this condition, the researcher elaborates some factors that may impact this situation. The researcher collected information as supporting data from the reports, news and interviews. Head of BPK, Rizal Djalil, in the plenary session Jakarta stated, based on the audit report of Financial Statement of State Government that "Tax revenue short fall conditions influenced by internal and external government factors which include three elements, namely tax policy, tax collector institutions and taxpayer" (detik.com, 2014). In terms of tax policy, Indonesia has some regulations; there are Law of General Provision and Tax Procedures, and Tax Collection Law Force Letter. Unfortunately, these regulations are not supported by effective law enforcement, so it is unable to encourage tax compliance. From the tax payer point of view, the economic condition and the global recession makes tax payer unable to meet tax obligations.

Other factor that is very important is the tax collector institution, which has not created a conducive situation after the case of criminal offense involving tax officials. As we had known, there are some cases of crimes committed by tax officials. According to Rizal, the DGT need to reform its tax officer and give them remuneration as critical success factor to optimize the performance of tax revenue. Some of the cases that involved tax officials need to be given serious attention. Tax officials which are expected to be the spearhead in tax collection to finance the state budget, has became parts in loss of tax revenue. It can cause state loss and also reduce the confidence of Tax Payer towards DGT.

Values adopted by DGT are the starting steps in war against corruption. These values are expected not only as just words or symbols, but these values are expected to develop mindset, confidence, and awareness which can be seen in the attitudes and behaviors of the employee in conducting everyday jobs. It is also expected that by internalized these values in all DGT employees, it can improve the organization performance and ease the organization in realizing its goals.

In addition, facts are founded by BPK, according to the Director General of Taxes, Fuad Rahmany (Repubika.co.id, 2014), DGT had difficulties achieving the maximum target due to lack of support infrastructure such as branch offices, facilities and infrastructure, and the quality and quantity of human resources. Human resources is the most important element in determining an organization development. To reach the organization goals, employees competencies that aligned with needed requirements in conducting everyday jobs is needed. Every organization will always try to improve the performance of the employees with the expectation that the performance of the organization will also improve. By implementing the right human resources management, it is expected that the quality and performance of employees can be improved.

Based on the interviews conducted by the researcher with the Head Sub-Section of Human Resources Division of DGT Regional Office of West Java I, Mr. Eko Sunaryo, the cause of the target revenue of tax office in area of DGT Regional Office of West Java I since 2010 until 2014 cannot be achieved, beside of the tax payer, maybe also strongly influenced by the performance of the employees. "The unoptimal performance of DGT Regional Office of West Java I may caused by a lack motivation of the employees," said Mr. Eko Sunaryo.

This should get serious attention by conducting evaluation to the factors that can affect employee performance which accumulate to organizational performance in tax offices in area of DGT Regional Office of West Java I. As a core part in DGT, employees have an important role for DGT's success. Improving the tax institutional will also require better employee (tax officer). Employees (human capital) as a key element that have powerful impact to drive organizational performance are supposed to work aligned with DGT's core values. DGT also need to manage its valuable assets through human capital management practices to get high performance.



Based on that information, some questions appeared about relationship between core values and human capital management practices, core values and organizational performance, and human capital management practices and organizational performance. This research is conducted to know how organizational performance may be affected by organization core values, as foundation on which organization perform, and human capital drivers, as drivers in human capital management, how human capital management practices may be affected by core values.

## 2. Business Issue Exploration

### 2. 1. Conceptual Framework

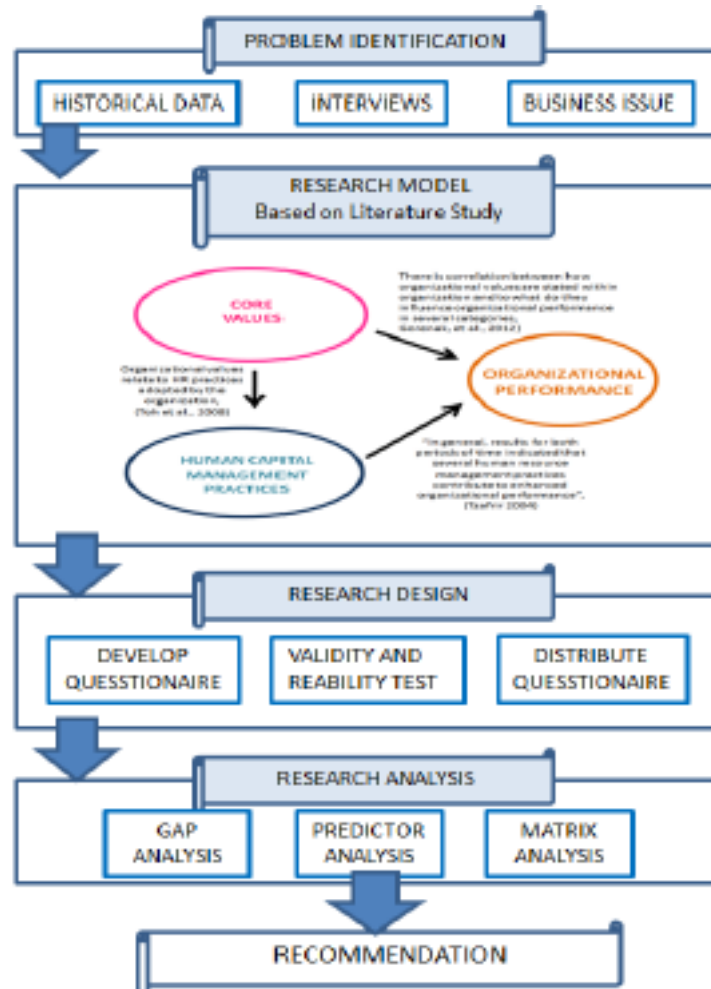


Figure 1. Conceptual Framework

First phase is identifying the problems through historical data and compare with actual condition by interview, then compile into business issues. Second phase is transform concept into research model. The research model built based on the literature study. Third phase represent research design. Research design describes activity in gathering information. There are three main activities for this research: develop questionnaire, validity and reliability test by distribute the questionnaire to 30 people and the last is distribute the questionnaire to gather the data. All data gathered are process in fourth phase research analysis. There are three type of analysis. First is gap analysis. Gap analysis is to revealed out gap based on questionnaire score – comparing existing score with maximum score. Second is predictor analysis. Predictor analysis is to reveal the element that can predict higher than others. And the last is matrix analysis. The last phase for this research is proposing recommendation. Recommendations propose based on research findings.

## 2.2. Literature Study

### *Organizational Performance*

The organization's capability in using resources to accomplish its goal effectively and efficiently is known as organizational performance (Daft, 2000) (Shahzad, et al., 2007). Many studies using organizational performance as dependent variable because in evaluating organization's actions and environments, organizational performance is the most substantial part. Over the year, March and Sutton (1997) found that organizational performance had been used as dependent variable by 23% from 439 articles in Strategic Management Journal, the Academy of Management Journal and Administrative Science Quarterly (Richard et al., 2008) Platonova (2005) found there is a positive result that clearly indicates that organizational culture and progressive human resource management practices may play a major role in improving hospital employee satisfaction. These findings are in line with strategic HRM and organizational culture theories, which explore the relationships between these organizational phenomena and improved organizational performance.

DGT Regional Office of West Java I use Key Performance Indicator to measure how well every department and office can perform. This KPI is derived from the balance scorecard contained within Decision of Director General of Taxes Number KEP-105/PJ/2012 about Guidelines for the Management of Performance in Directorate General of Taxes. DGT's balance scorecard is strategic management tool that comprehensively explains about strategic objective and DGT's performance from several perspectives.

### *Core Values*

An organization formed to achieve a specific goal through the performance of all existing human resources within the organization. However, human performance is largely determined by internal and external environmental conditions, including organizational culture.

Result from more than 60 studies covering 7600 companies and small business unit, which conducted between 1990 and 2007, mostly showed positive correlation between strong culture and performance improvement (Gallagher, 2008; Shahzad et al., 2012). Therefore, the ability to create an organization with a culture that is capable of pushing the performance is a necessity. Organizational culture has a decisive contribution in shaping employee behavior.

Organizational culture is the values and attitudes believed by employees and become employee's behavior. The core of culture is formed by values. Values are the essence of corporate culture because they set out what to do and do not do for all employees in the organization. Values are enduring beliefs that provide a system by which people calibrate their decisions and actions (Senge, 1990; Kwak, 2009:43). Person's action and decision is taken and chosen based on person's values. A value that is believed and shared in entire parts of organization is known as shared values.

Core values help people in organization achieve their organization goals because they know what is right and wrong, bad and good. Core values are the fundamental beliefs that underlie work and which strategies should employ to meet organization's vision and mission. The entire organization should use core values on daily basis to plan strategies, make decisions and interact with each others. The company's values shaped key business decisions, the company's performance evaluations, organization of work, training programs, and the occupational roles and responsibilities of its employees.

Bansal (2003) found that within two-large organizations, the organization's value underlie the decision of organization in responding to a given environmental condition, (Garza, 2012). She found that the speed, scale and scope of the organization's response are also determined by the organization's values. So, it is clear that in determining the organization's action and attitude, organization values hold important role. Similarly, Gorenak et al (2012) found that there is correlation between what organizational values influence organizational performance in several categories and how organizational values are stated within organization.

Based on the previous research, the organizational values relate to HR practices adopted by the organization. This research examined the correlation between organizational values and bundles of HR practices in 661 organizations across a full range of organizational and industries size (Toh et al., 2008). The result indicates that human resource systems implemented in organizations are consistent with their values.

Core values in DGT are based on KMK No. 312/KMK/01/2011 which introduced in September 2011. These values are shared values for all directorates in Ministry of Finance. They are Integrity, Professionalism,

Synergy, Service and Excellence. All of the values are the first step towards Good Governance that can support DJP in achieving its vision and missions.

### Human Capital Management

Human capital is one of an important element of the intangible assets beside copyright, customer relation, brands and company image. So, as a critical part to business success, it is very important to know the best way to manage them more efficiently and effectively. Human capital is “the relevant knowledge, skills, experience and learning capacity of the people available to the organization” (Ingham ,2007). And John Ingham defines human capital management based on human capital’s definition as a “strategic approach to people management that focuses on the issues that are critical to an organization’s success”. “Human capital management is an integrated effort to manage and develop human capabilities to achieve significantly higher levels of performance”, Chatzkel (2004) (Baron, 2008).

The presence of human capital practices is positively affect the firm’s performance (Noe et al., 2003; Youndt et al, 2004; Marimuthu et al., 2009). Tzafirir (2004) found that if firm enhanced their employee power in the decision making process and used them as the main source for new employment, treated their employee as an assets and invested in their abilities, the firm will demonstrate higher organizational performance.

According to Bassi and McMurrer (2007), employees are the source of sustainable competitive advantage, but many companies still treat and manage their employees as cost. So, in order to achieved organization goals, the company should manage their employee well. The human capital management performance is determined by its drivers (Bassi and McMurrer, 2007). The drivers are leadership practices, employee engagement, knowledge accessibility, workforce optimization, and learning capacity.

### 2. 3. Research Model.

Based on theoretical findings that the researcher found, the researcher decided to identify how organizational performance and human capital drivers affected by organization core values as foundation on which organization perform, how organizational performance affected by human capital drivers. So, by increasing organization values and human capital drivers, the organizational performance will increase too.

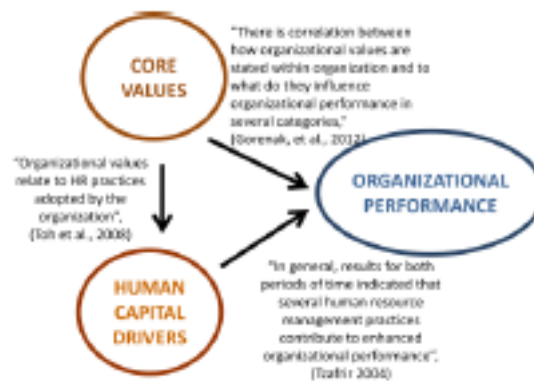


Figure II.1. Research Model

There are three hypothesis based on the model.

- Hypothesis 1 : statistically, Core Values has a significant positive effect to Organizational Performance
- Hypothesis 2 : statistically, Core Values has a significant positive effect to Human Capital Drivers
- Hypothesis 3 : statistically, Human Capital Drivers has a significant positive effect to Organizational Performance

In this research, research used KPI for regional office in DGT as variable Y. This KPI consist of : a high level of compliance of Taxpayer, increasing the effectiveness of services and counseling and optimizing the implementation of Extensification

DGT’s Core values consist of five items core values as stated in Decision of Ministry of Finance No. 312/KMK.01/2011 about The Values of Ministry of Finance. The entire organization conducts and holds them. These values are underlying the employee to do their work. This core values will be exogenous latent variable or we can called as variable X1. There are integrity, professionalism, synergy, service and excellence.

Five drivers from human capital management that helps to drive organizational performance (Bassi and McMurrer, 2007) will be as variable X2. Each of HCD is divided in several human capital management practices (HCMP). They are 23 HCMP that can be assess and monitor to know organizations strengths and weakness in human capital management. Improvements or declines in HCMP will follow by improvements or declines in organizational performance.

#### 2. 4.Sample

There are 247 questionnaires used in this research. These questionnaires are distributed randomly to employee in tax office in area of DGT Regional Office of West Java I. The questionnaire consists of 90 question using Likert scale of 5.

#### 2. 5.Research Outcomes.

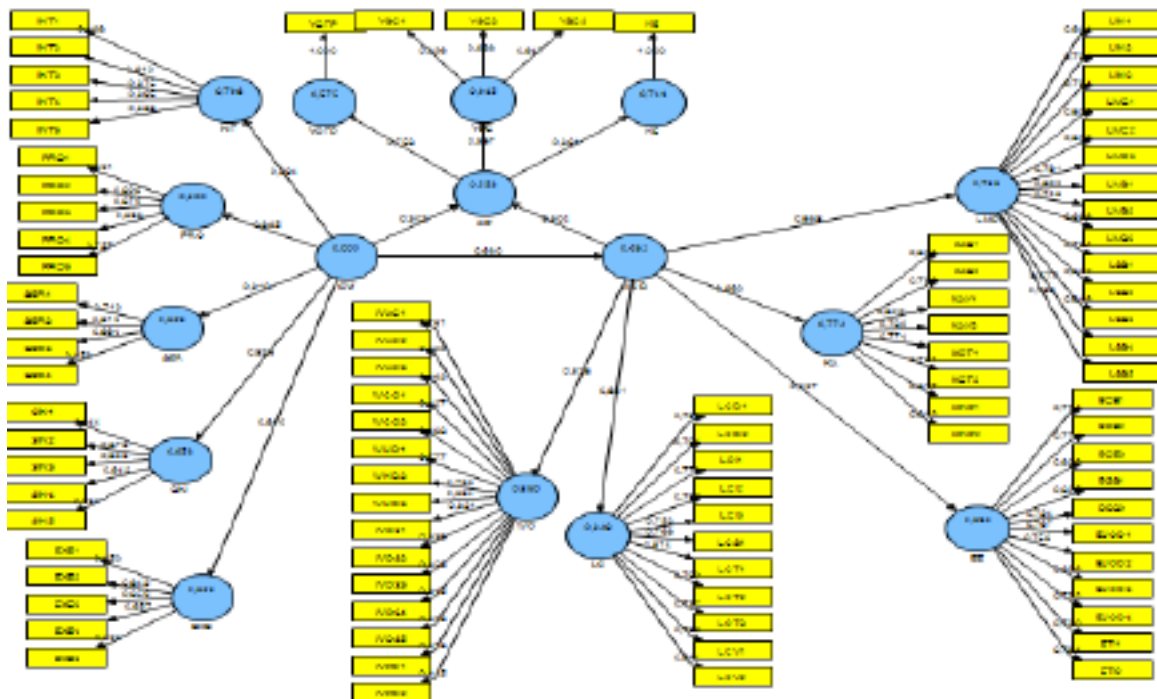


Figure 2. PLS models

PLS method analysis conducted in this research is to determine whether there is a relationship between core values, human capital drivers and organizational performance. This analysis also aimed to determine the dimensions of all the independent variables that have the greatest influence.

Bootstrap calculation is conducted in order to get T-statistic value. We have to compare T-statistic value with t table score to determine the relationship as significant. If T-statistic score greater than the t table the relationship is classified as significant relationship. This research has 247 cases with confidence level of 95% and has t table score at 1.96.

Table.1. Path Coefficient

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics (O/STERR)
CV -> HCD	0,679968	0,680303	0,033699	0,033699	18,377776
CV-> OP	0,303008	0,303297	0,067637	0,067637	4,479914
HCD -> OP	0,503607	0,503240	0,062875	0,062875	8,009612

Result from path analysis, using smartPLS software, shown there is a positive effect between Core Value to Organizational Performance (0,303). Core values is independent variable. In this research Organizational is affected directly by core values for about 30,3%. Human capital drivers affected by core values for about 68% and organizational performance affected by human capital drivers for about 50,4%.

T-statistic CV to OP relationship in Table 3.40. is 4,517652, greater than 1,96. It means, Hypothesis 1 is accepted. Improvement in core values will make the organizational performance level will increase. T-statistic CV to HCD relationship in Table 3.40 is 18,322627 greater than 1,96. It means Hypothesis 2 is accepted. Improvement in will make the human capital management practices level will increase. The last, T-statistic HCD to OP relationship in Table is 8,645341, greater than 1,96. It means Hypothesis 3 is accepted. Improvement in human capital management practices will make the organizational performance level will increase.

R square for Human capital Drivers is 0,462337. This score means that Core Values as exogenous variable has strong effect to Human Capital Drivers as endogenous variable. This score also means that Core Values effect Human Capital Driver for 46,23% while the rest is influenced by another variables that is not measured in this research. R square for Organizational Performance is 0,564165. This score means that Core Values as exogenous variable together with Human Capital Drivers also have strong effect to Organizational Performance as endogenous variable. This score also means that Core Values and Human Capital Driver together effect Organizational Performance for 56,42% while the rest is influenced by another variables that is not measured in this research.

Core values consist of 5 dimensions (sub-variable) and human capital drivers consist o 5 dimensions (sub-variable) too. Based on PLS result, synergy had contribute the higher effect than other dimension in core values and workforce optimization had contribute the higher effect than other dimension of human capital drivers.

## 2. 6.Matrix Analysis

Matrix analysis is expected to give an adequate picture of which the indicator is a priority for improved and developed in advance .Based on path coefficient as weight and gap analysis, the level of importance and priority from each statement can be determined.

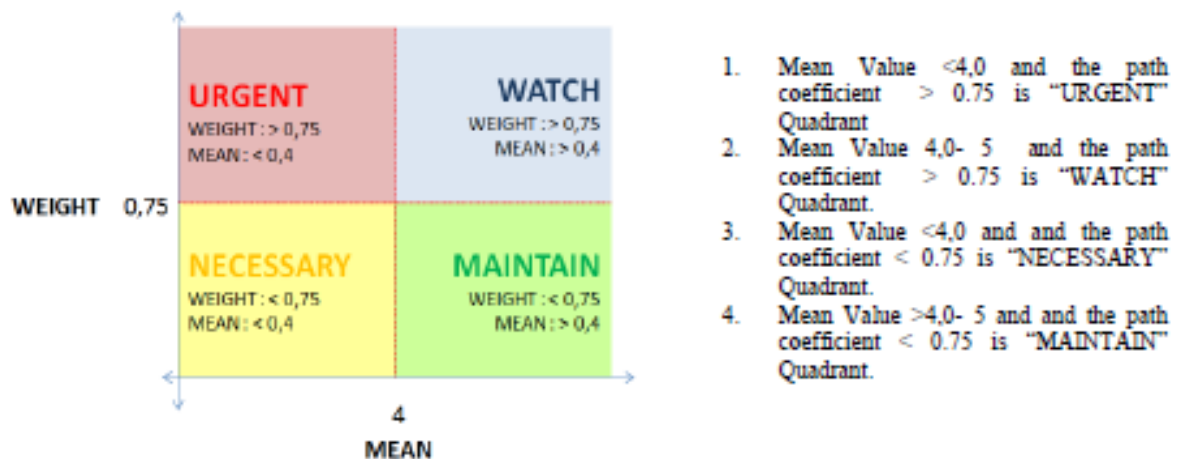


Figure 3. Matrix analysis

Based on the mean value of each statement in questionnaire and path coefficient, we can described the level of importance and priority of current situation about core values and human capital drivers in Tax Offices in area of DGT Regional Office of West Java I. The matrix of core values is shown below.

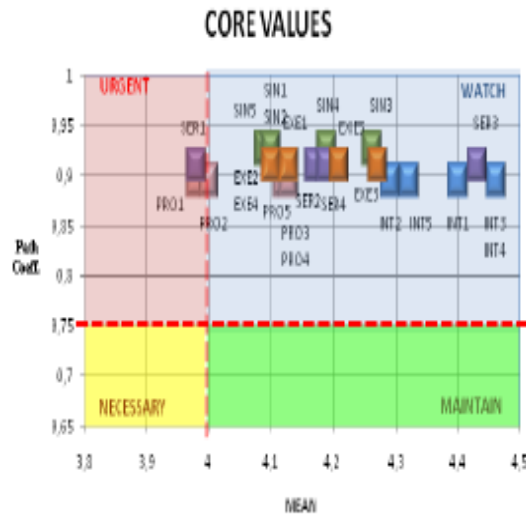


Figure 4. Matrix of Core Values

The indicator of core value are spread in “urgent and watch quadrant . Indicators in “urgent” means that the indicators contribute strong effect to CV but not in good condition because not had good score. These indicators had high level of importance and should be prioritized. They are SER1 (we serve by prioritizing stakeholders’ satisfaction) and PRO1 (we have expertise and extensive knowledge). Other indicators are in the maintain quadrant.

Matrix analysis of human capital drivers :

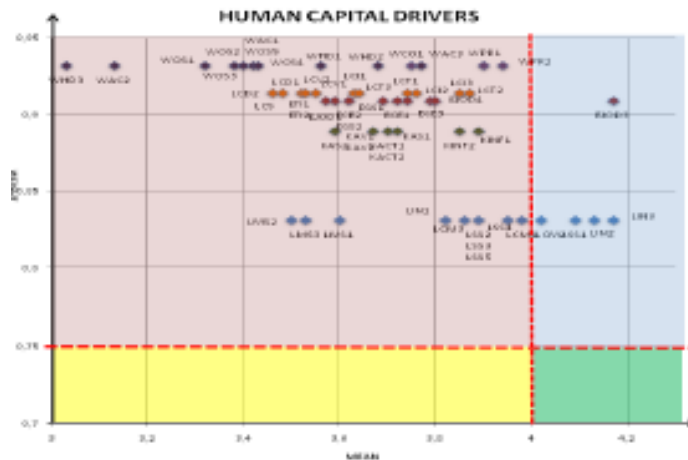


Figure 8. Matrix of Human Capital Drivers

Almost all indicator of human capital drivers are spread in urgent quadrant and only few in watch quadrant. The indicator in the watch quadrant consist of one indicator from employee engagement and four indicator from leadership practices. Indicators in “urgent” means that the indicators contribute strong effect to Human capital driver but not in good condition because not had good score. These indicators had high level of importance and should be prioritized. The drivers that in the urgent quadrant based on the level of importance are workforce optimization (0,932), learning capacity (0,914), employee engagement (0,909), knowledge accessibility (0,889) and leadership practices (0,831). From those result it can be assumed that workforce optimization had strong effect compare to other drivers.

### 3. CONCLUSION AND RECOMMENDATION

#### 3. 1. Conclusion

The conclusions of this study is to answer the research objective that's been made in this study:

1. There is a positive effect of core values to organizational performance. Improvement in core values level will increase the organizational performance.

2. There is a positive effect of core values to human capital drivers. Improvement in core values level will increase human capital driver.
3. There is a positive effect of human capital driver to organizational performance. Improvement in human capital drivers while implementing HCM will increase organizational performance.

This research gives enough description about situation in DGT Regional Office of West Java I. According to research, it informed that DGT Regional Office of West Java I have problem to highly maintain some of their core values and a lot of human capital drivers.

The improvement initiatives concentrated in “Urgent Quadrant” for Core Values and Human Capital Drivers. Quadrant “Urgent” is the quadrant where the indicator variable X is considered to be very influential on the result of the application of variable Y and had gap score to targeted score.

### 3. 2.Improvement Initiatives for Core Values

Actually, there is no target area had achieved in Core Values variable. In the short time we have to focus in “Urgent” Quadrant first and then to others quadrant. The critical point in improving the core values is to ensure that all employee knows and understand the core values embraced by the company and apply the core values in everyday working life. To improve the employee understanding of the DGT Regional Office of West Java I core values, tax offices and DGT Regional Office of West Java I should internalize and maintain those core values.

What researcher proposed for tax offices in area of DGT Regional Office of West Java I is to;

1. Define “Value Statement” from each core values that related to the daily activities.
2. Socialize and communicate the “Value Statement” for entire employees. This socialization and communication must hold regularly. Since leaders have a big power in organization, the communication could done by the leader too.
3. Ensuring the values living upheld by entire DGT Regional Office of West Java I in daily activities.
4. Lived the value with demonstrated it by the leader . Not only at middle management but also at the very top levels.
5. Develop monitoring system , in order to get feedback and do evaluation about organizational performance that can be associated with organization core values.
6. Developing reward and recognition program for employee that had succeeded lived the values.

### 3. 3.Improvement Initiatives for Human Capital Drivers

All variable appear as high predictor from Human Capital Drivers. The highest is Workforce Optimization. Then follow by Learning Capability, Employee Engagement, Knowledge Accessibility and the last is Leadership Practices. Improvement at those items can give strong contribution to organizational performance. Almost all items still have gap compare with targeted score in Human Capital Drivers.

Improvement in workforce optimization is conducted through Competency-Based Selection System program and talent management program. Improvement in learning capacity is conducted by coaching program, training of trainees program, taking time to understand individual employee aspirations and setting goals/plans to achieve them and built and implement career plan. Improvement in employee engagement is conducted through work redesign intervention, reward and recognition and conducting fairness performance evaluation. Improvement in knowledge accessibility is conducted through knowledge management. The last, improvement in leadership practices is conducted trough leadership development program.

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