

The Influence of Knowledge Management on the Job Satisfaction of SME Employees

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Abstract

Knowledge is now used to create and to maintain the organization's competitive advantage. Many companies have started performing knowledge management, which is thought to be able to help enhance the organization. In order to carry out knowledge management effectively, Information Technology involves relatively. This research studies how knowledge management influences job satisfaction. Knowledge management is considered as a process, that contains 5 activities: knowledge creation, knowledge accumulation, knowledge sharing, knowledge utilization, and knowledge internalization. This study collected data from small and medium enterprises located in Bangkok and vicinity.

The data collected from the questionnaires suggest that some activities in the process of knowledge management, such as knowledge sharing, knowledge utilization, and knowledge internalization, have an influence on job satisfaction. This shows that many employees have no concern about knowledge creation or knowledge accumulation, or they do not give these two activities much importance. This implies that employees do not pay serious attention to knowledge management. This might possibly be because of human

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nature and the organization's culture. Moreover, this study finds that knowledge sharing, knowledge utilization, and knowledge internalization must appear at the same time.

Keywords: *Knowledge, Tacit Knowledge, Knowledge Management, Job Satisfaction*

อิทธิพลของ การจัดการความรู้ที่มีต่อความพึงพอใจ ในการทำงานของพนักงานในธุรกิจ SMEs

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บทคัดย่อ

ความรู้เป็นทรัพยากรที่สำคัญที่จะทำให้องค์การยังคงรักษาความได้เปรียบในการแข่งขัน การจัดการความรู้จึงถูกนำมาใช้ในการพัฒนาองค์การ ซึ่งเทคโนโลยีสารสนเทศเป็นองค์ประกอบหลักที่สำคัญประการหนึ่งที่จะทำให้การจัดการความรู้ขององค์การดำเนินไปอย่างมีประสิทธิภาพ โดยงานวิจัยนี้ศึกษาอิทธิพลของการจัดการความรู้ขององค์การกับความพึงพอใจในการทำงานของพนักงาน โดยพิจารณาจากกระบวนการจัดการความรู้ซึ่งแบ่งออกเป็น 5 กระบวนการ คือ การสร้างความรู้ การสะสมความรู้ การแบ่งปันความรู้ การนำความรู้ไปใช้ประโยชน์ และการหากความรู้ภายนอกใน โดยใช้บริษัทวิสาหกิจขนาดกลางและขนาดย่อม (SMEs) ในเขตกรุงเทพมหานครและปริมณฑล เป็นกลุ่มตัวอย่าง

จากการวิเคราะห์ผลสำรวจโดยแบบสอบถาม พบร้า บางกระบวนการของการจัดการองค์ความรู้ ไม่มีอิทธิพลต่อความพึงพอใจในการทำงาน มีเพียงแค่การแบ่งปันความรู้ การนำความรู้ไปใช้ และการหากความรู้ภายนอกในองค์การเท่านั้นที่มีความสัมพันธ์กับความพึงพอใจในการทำงานของพนักงาน ทำให้ทราบว่าบุคลากรยังไม่ให้ความสำคัญกับการจัดการความรู้อย่างจริงจัง ซึ่งอาจเนื่องมาจากการขาดความต้องการและความต้องการขององค์การ นอกจากนี้ยังพบว่า กระบวนการทั้งสามที่มีอิทธิพลต่อความพึงพอใจในการทำงาน จะต้องดำเนินการไปพร้อมๆ กัน

คำสำคัญ: ความรู้ ความรู้แห่ง การจัดการองค์ความรู้ ความพึงพอใจในการทำงาน

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Introduction

Nowadays, organizations can respond to the dynamic business environment effectively by using knowledge as a supporting tool (Choi and Lee, 2003; Choi et al., 2006). Knowledge is an important resource, which can provide organization's with competitive advantages. Also these organizations face some problems in dealing with high experience employee's retirement, so they have lost their knowledge. Many organizations try to use knowledge management to retain organizational knowledge and face a lot of problems (Boollinger and Smith, 2001).

Information Technology is now used to manage an organization's knowledge (Barnes, 2002; Bartlett et al., 1996). Effective use of IT for knowledge management can distribute the knowledge across the organization and also increases overall organizational performance (Tseng, 2008). Up to now, IT which has been used to manage knowledge such as expert systems, decision support systems, and information retrieval systems. While IT is used in every organization, knowledge management is also concerned and many organizations have adopted it as one of their missions. Data are collected while using IT. In addition, developing IT is collecting explicit knowledge. When measuring how IT supports knowledge management, it is better to measure the level of knowledge management in organizations. Using knowledge can reduce errors and time used when performing any jobs, so employees will have higher satisfaction level with their jobs. Lin and Tseng (2005) have explored the gaps in the knowledge management process and found that these gaps have some influence on an organization's performance. The higher the employee satisfaction is, the better is the quality of the service that employees perform (Schlesinger and Zornitsky, 1991). This leads to higher customer satisfaction (Reynierse and Harker, 1991; Yoon et al., 2001; Loveman, 1998; Schneider et al., 1998).

Mosadeghrad (2003) has mentioned that job satisfaction is an individual's attitude toward his/her job and organization. There are many aspects regarding job satisfaction, such as feeling related to differences in the internal and external working environment, satisfaction about wage, salary, benefits, promotion, working conditions, management, the organization's performance, and the relationships

among colleagues (Misener et al., 1996). Employees should get fair attention and respect, so the employee's satisfaction is one indicator of the employee's feeling or psychological condition (Haccoun and Jeanries, 1995). From the benefit point of view, getting good job satisfaction, which means getting good benefits, leads to good employee's behavior. This affects the organization's performance (Beatty, 1996). Hence, it is reasonable to consider job satisfaction.

Because many organizations promote knowledge management, it is interesting to study the influence of the organization's level of knowledge management on job satisfaction. The result of this study can indicate the current status of knowledge management in the environment of SMEs in Bangkok and vicinity in Thailand. It also indicates the direction for developing the IT in order to support knowledge management. This study used the process of knowledge management to evaluate the level of knowledge management. Lee et al., 2005 have concluded that the process of knowledge management consists of knowledge creation, knowledge accumulation, knowledge sharing, knowledge utilization, and knowledge internalization.

Knowledge Management and Organizational Performance

There are many definitions of knowledge (Wikstrom and Norman, 1994; Daveport and Prusak, 1998). All of them state that it might take a long time to collect and to generate new knowledge, which comes from data and information. Davenport and Prusak (1998) have also stated that knowledge is a combination of experience, value, and expertise with new information for applying with job in the organization, so it is embedded in the organization's processes and norms.

It is important for any organization to collect its knowledge, so knowledge management plays an important role. Knowledge management involves the integrated improvement of all processes (Trapp, 1999; Kucza, 2001; Henrie and Hedgepeth, 2003). It also consists of many processes to manage both tacit knowledge and explicit knowledge, as classified by Choo (2000). There are many researches about the knowledge management process, which transfer from tacit knowledge to explicit knowledge, such as Nonaka and Takeuchi (1995), Marquardt (1996), Turban et al. (2008), Probst et al. (2000), King et al. (2008). All of

them have indicated that knowledge management starts from knowledge creation or knowledge acquisition and ends with knowledge utilization. The Knowledge Management cycle model of King et al. (2008) shows that knowledge has an effect on an organization's performance. Lee et al. (2005) have stated that the knowledge management process includes 5 activities: knowledge creation, knowledge accumulation, knowledge sharing, knowledge utilization, and knowledge internalization. To evaluate the level of knowledge management, knowledge management performance indexes were developed.

There are many researches about knowledge management and organizational performance (Choi and Lee, 2003; Kalling, 2003; Lin and Tseng, 2005; Lee et al., 2005; Choi et al., 2006). Lin and Tseng (2005) have explored the gaps in knowledge management activities in order to analyze the need for knowledge management and have drawn some relationships among knowledge management activities and organizational performance. This research found that there were 5 gaps that depended on the failure to understand their organization's mission, lack of necessary data and information, inactive manager and employee communication, unclear relationship between knowledge and organization's mission, no incentive for employees to perform knowledge management activities, lack of management support and evaluation about knowledge management and lack of knowledge management skill in the organization. Also it found that commitment from management and knowledge management skills and attitudes had a significant effect on an organization's performance.

In addition to the support from management, in order to solve problems concerning data and information for creating the organization's knowledge needs IT. IT can support all knowledge management activities as considering from the amount of budget allocated in each year (Bollinger and Smith, 2001). These IT are communication technology, collaboration technology, storage technology, data warehouse, data mining, and learned-lessons databases, etc. However, these IT focus on specific knowledge management process. There are still needs for IT that supports that overall knowledge management process.

Job Satisfaction

There is a relationship between job satisfaction and customer satisfaction (Hurley and Estelami, 2007) and also there is a relationship between job satisfaction and technology (Lovett et al., 2004). It is interesting to study the effect of KM on job satisfaction. Many researchers have defined job satisfaction as the feeling of employees about working successfully on the assigned job (Strauss and Sayless (1960); Smith (1964); Good (1973); Arvey et al. (1989); Schneider et al. (1998)). Moreover, Strauss and Sayless (1960) have stated that job satisfaction not only focuses on feeling and willing to finish any assigned jobs, but also focuses on how those jobs can respond to basic needs, benefits, and returns gained. This definition is more closely suitable. From the above discussion, the research framework is as follows Figure 1.



Figure 1: Research Framework

The research hypotheses corresponding to this framework are as follows:

H1: Knowledge management has a positive relationship with job satisfaction.

Knowledge management used nowadays is involved in knowledge sharing and knowledge utilization as considered from the popular use of google.com. The corresponding hypothesis is:

H2: Knowledge sharing and knowledge utilization are more related to job satisfaction than knowledge creation, knowledge accumulation, or knowledge internalization.

Research Methodology

The data were collected using questionnaires from employees working in SMEs located in Bangkok and vicinity and listed by the department of business promotion, the Ministry of Commerce in 2006. All SMEs were classified according to 4 categories: production, service, retail, and wholesale, as classified by the Office of Small and Medium Enterprise Promotion in 2007. The questionnaires were sent to SMEs based on stratified sampling.

Personal department in each SME was contacted in order to explain the objective and how to fill in the questionnaire. About 5 employees in each SME were asked to fill in the questionnaire. A total of 171 questionnaires were received. Only 169 questionnaires could be used. The response rate was at 21.37 percent, which was acceptable (Hager et al., 2003: 255). Because knowledge management that is a new concept in many organizations, it is difficult to find respondents. However, the samples represent the same characteristics of the population.

The questionnaire consists of 3 parts. The first part is about the company. The second part is about knowledge management. The questions in this part were adapted from KMPI: Measuring Knowledge Management Performance (Lee et al., 2005). There are 34 questions in this part. These questions passed validity and reliability tests. The third part is about job satisfaction. Also these questions were adopted from the instrument in Lovett et al., 2004 and passed validity and reliability tests. There are 10 questions in this part. The last two parts are comprise of 5-likert scale questions, where 1 means totally strongly disagree and 5 means strongly disagree.

Before collecting the data, the instrument was sent to experts in IT areas for validity testing again. The data were coded and analyzed using multiple linear regressions with SPSS version 13.

Data Analysis and Discussion

The overall sample units indicate that SMEs in the service sector have the highest KM level (mean = 4.65), followed by SMEs in the wholesale sector (mean = 4.00). The level of KM in production and retail sectors was the lowest (mean = 3.92). Knowledge internalization by task-related knowledge had the highest level (mean = 4.06), followed by knowledge creation through information understanding (mean = 3.88), while knowledge internalization through educational opportunity and organizational learning had the lowest level (mean = 3.74). In the production sector, all 5 KM activities were at a high level. In the service sector all 5 KM activities were at a high level. In the wholesale sector, knowledge internalization by task-related knowledge was at a very high level, and the other activities were at a high level. See table 1.

Table 1: Characteristics of Samples

Socioeconomic Background	Job Satisfaction						\bar{X}	S.D.
	Strongly Agree (N)	Agree (N)	Neither Agree or Disagree (N)	Disagree (N)	Strongly Disagree (N)	Total (N)		
Sex								
Male	1.9 (1)	34.6 (18)	50 (26)	11.5 (6)	1.9 (1)	100 (52)	3.92	0.84
Female	0.9 (1)	23.9 (28)	71.8 (84)	3.4 (4)	0 (0)	100 (117)	4.06	0.72
Age								
21-30	0 (0)	23.5 (19)	69.1 (56)	6.2 (5)	1.5 (1)	100 (81)	4.01	0.75
31-40	1.5 (1)	30.8 (20)	60 (39)	6.2 (4)	1.5 (1)	100 (65)	3.96	0.77
41-50	0 (0)	36.8 (7)	63.2 (12)	0 (0)	0 (0)	100 (19)	4.05	0.78
51-60	0 (0)	0 (0)	75.0 (3)	25.0 (1)	0 (0)	100 (4)	4.75	0.50
Education								
Secondary Education	0 (0)	50 (6)	41.7 (5)	8.3 (1)	0 (0)	100 (12)	4.00	0.60
Diploma	0 (0)	15.4 (4)	80.8 (21)	3.8 (1)	0 (0)	100 (26)	4.15	0.67
Bachelor's Degree	0 (0)	23.6 (26)	68.2 (75)	6.4 (7)	1.8 (2)	100 (110)	3.97	0.82
Master's Degree	4.8 (1)	47.6 (10)	42.9 (9)	4.8 (1)	0 (0)	100 (21)	4.09	0.62
Income per Month								
<= 15,000 Baht	0 (0)	24.7 (22)	68.5 (61)	6.7 (6)	0 (0)	100 (89)	4.04	0.66
15,001-30,000 Baht	0 (0)	28.6 (16)	64.3 (36)	3.6 (2)	3.6 (2)	100 (56)	3.95	0.92

Table 1: Characteristics of Samples (Continued)

Socioeconomic Background	Job Satisfaction						\bar{X}	S.D.
	Strongly Agree (N)	Agree (N)	Neither Agree or Disagree (N)	Disagree (N)	Strongly Disagree (N)	Total (N)		
30,001-45,000 Baht	0 (0)	21.4 (3)	64.3 (9)	14.3 (2)	0 (0)	100 (14)	4.00	0.78
> 45,000 Baht	10 (1)	50 (5)	40 (4)	0 (0)	0 (0)	100 (10)	4.20	0.63
Experience								
<= 5 Years	0 (0)	23.5 (27)	69.6 (80)	5.2 (6)	1.7 (2)	100 (115)	4.03	0.76
6-10 Years	3 (1)	42.4 (14)	42.4 (14)	12.1 (4)	0 (0)	100 (33)	3.97	0.68
11-15 Years	0 (0)	23.1 (3)	76.9 (10)	0 (0)	0 (0)	100 (13)	4.08	0.86
16-20 Years	0 (0)	20 (1)	80 (4)	0 (0)	0 (0)	100 (5)	3.60	0.89
> 20 Years	0 (0)	33.3 (1)	66.7 (2)	0 (0)	0 (0)	100 (3)	4.33	1.15

Female employees exhibited a higher job satisfaction level than male employees. The higher the experience and age of the employees were, the higher was the job satisfaction. Certificated employees had the highest level of job satisfaction. Finally, the employees whose salary was greater than 45,000 baht had a higher job satisfaction level than the others.

When considering the influence of KM on job satisfaction, the results from the SPSS indicate that the level of KM in the organization has a positive effect on job satisfaction, with a Pearson coefficient = 0.469 at a significant level of = 0.01. (H1 was supported). To analyze in greater detail which activities of KM process affected job satisfaction, multiple linear regression models were developed. The results show that knowledge internalization has the highest influence level on

job satisfaction, followed by knowledge utilization, knowledge sharing, and knowledge accumulation, consecutively. These findings are supported by Connelly and Kelloway (2003), who have stated that people would provide good collaborative teamwork if all parties gained benefits. Most of the time when facing any problem, people find some knowledge for solving it efficiently (Bhatt, 2000). The results indicate that knowledge accumulation had the lowest influence on job satisfaction because it might be difficult to capture and represent the knowledge. For knowledge creation, only knowledge creation by task understanding had a positive influence on job satisfaction at a statistically significant level of 0.05, but knowledge creation through information understanding had no influence. This implies that employees might not use information significantly when performing tasks. Only knowledge internalization via education opportunity and organizational learning had a significant influence on job satisfaction. Considering all of the variables at the same time, only knowledge sharing, knowledge utilization and knowledge internalization had a significant influence on job satisfaction.

Table 2: Interaction between KM Process and Job Satisfaction

Variable	Model 1	Model 2	Model 3	Model 4
Sex	.021	.012	.023	.013
Age	.001	.002	.001	.001
Education	.024	.022	.033	.025
KS x KU	.044***			
KS x KI		.040***		
KU x KI			.042***	
KS x KU x KI				.007***
R ²	.218	.171	.185	.169

The figure in table 2 shows that knowledge sharing and knowledge utilization are more related to job satisfaction than knowledge creation, knowledge accumulation or knowledge internalization. (H2 was supported.)

Moreover, in order to get higher job satisfaction, an organization needs to promote knowledge sharing, knowledge utilization and knowledge internalization at the same time. However, table 2 shows that to promote job satisfaction using knowledge management needs to focus on every activity.

According to the findings, the first hypothesis was accepted and concluded that knowledge management had a positive influence on job satisfaction. This means that if the organization implements knowledge management, the performance of the organization will improve (Choi and Lee, 2003). The second hypothesis was accepted partly. Because people have to work together in the organization as a team and they need to be a part of the social, as mentioned in Maslow's theory, it is important to share information and knowledge to make the team go in the same direction (Gloria and Devid, 2001). Moreover, the Supply Chain concept is adopted to improve organization performance, so information sharing is the core factor in creating good relationships among organizations (Holmes and Srivastava, 1999). As among organization performance is better, job satisfaction is higher. Also Maslow's theory indicates that the fourth-level need is being accepted and recognized. This was reflected in the results where it was seen that knowledge internalization via educational opportunity and organizational learning had a positive influence on job satisfaction. Getting a degree or certificate guarantees the knowledge of the person. It is physical evidence of having knowledge. Knowledge internalization by task-related knowledge has no significant relationship. This may cause by long time collecting the experience. It is also hard to identify and represent knowledge.

Today, IT is used to support knowledge management, for example searching system, collaborative technology, and e-Learning. These IT support team work, knowledge sharing, knowledge internalization, and knowledge accumulation. It also increases the opportunity for employees to work (Schneider et al., 1992), which relates to employee job satisfaction. However, both organizational culture and characteristics and the personnel of employees have both a positive and negative impact on knowledge sharing among employees (Connelly and Kelloway, 2003; Aswapee and Thammakoranonta, 2010). Including with limitation of IT resources in SMEs, the level of knowledge sharing efficiency is decreased (Leung et al., 2004). Even when the Intranet is applied for supporting knowledge sharing, the objective of using it is still not clear. The benefits received from the Intranet are limited (Stoddart, 2001). This leads to the need of organizational culture for promoting the use of the Intranet (Curry and Stanich, 2000).

Moreover, people might not be happy sharing their knowledge with others because they are afraid of losing its importance and usefulness. It is important to have a policy to support knowledge sharing. The result from sharing knowledge will lead to knowledge accumulation, knowledge sharing, knowledge utilization and knowledge internalization. At the present time, accumulating knowledge appears in the form of expert systems and knowledge management systems.

In terms of knowledge creation, it is difficult to happen even though many people have high educational background and high learning potential because they might not really understand the knowledge (Bhatt, 2000). In a dynamic business environment, organizational culture also has an effect on knowledge accumulation (Su-chao and Ming Shing, 2008).

Knowledge accumulation occurs along with knowledge utilization. Widely used IT that comes to help collection knowledge is information retrieval system such as Google, while the knowledge is collected in form of text (Leonard-Bratton, 1995). In Thailand, many organizations have started to collect knowledge especially in large organizations. However, the knowledge collected is not much and most of it is explicit knowledge, not tacit knowledge.

Conclusion

This research finds that knowledge sharing, knowledge utilization and knowledge internalization have an influence on job satisfaction, as presented in Figure 2.

Moreover, these activities have to do together in order to make job satisfaction better. When employees face some problems while working, they will start from knowledge internalization activity and at the same time they will find some knowledge from outside such as book and experts, which is a part of knowledge sharing activity. Then the employee will adapt the received knowledge to solve the problem. This is the knowledge utilization activity and then it happens to be a new knowledge, which was kept internally. This knowledge can be claimed as an important resource for the organization (Choi et al., 2006). The relationships among the 5 knowledge management activities are presented in Figure 3.

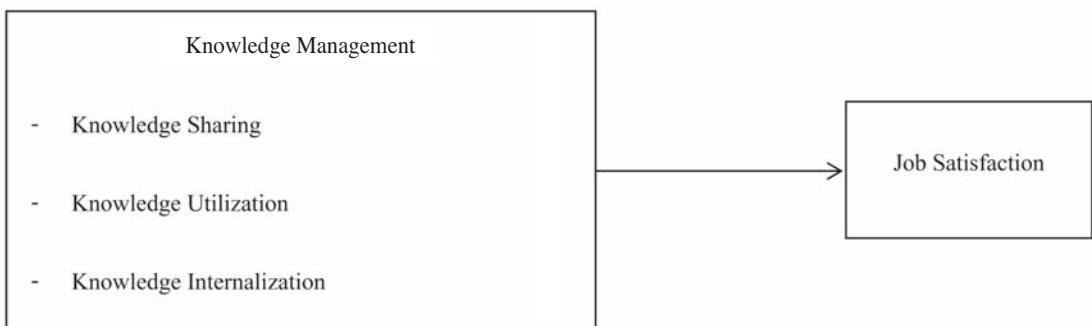


Figure 2: The Influence of Knowledge Management on Job Satisfaction

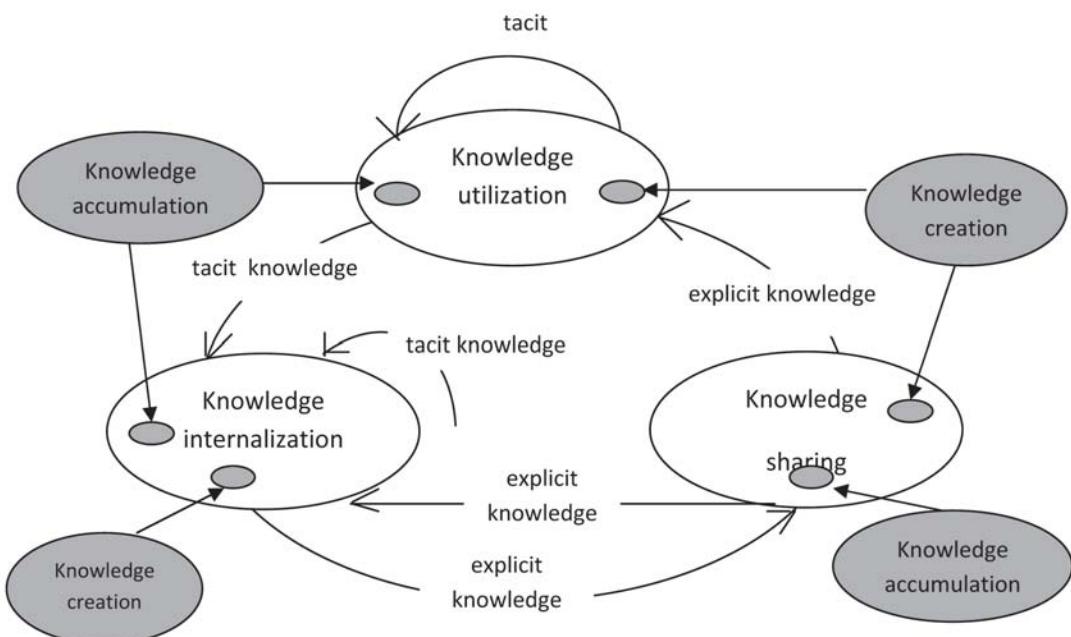


Figure 3: The Relationships among 5 Knowledge Management Activities

The results from this study also recommend that each organization invest in communication technology, collaboration technology, and storage technology. As business intelligence is growth (Power, 2007), it is important to develop these IT to collect organization knowledge in order to gain competitive advantages and to develop business intelligence. One way to find new knowledge is to perform data mining by using the data collected for organizations' databases. The most important issue in terms of promoting knowledge management activities is that manager needs to create a knowledge environment and culture.

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