ANTECEDENTS AND CONSEQUENCES OF KMS USAGE IN CHUNGHWA TELECOM COMPANY

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ABSTRACT

The knowledge management system (KMS) has attracted significant attention from researchers and practitioners as a facilitator of better employee performance. However, although companies have implemented KMS, empirical research findings offer inconsistent correlation between employee performance and KMS usage. Thus, the purpose of this study is to determine the antecedent factors influencing the KMS usage which might lead to better employee satisfaction and performance. Specifically, a research model based on the Technology Acceptance Model for testing the influence of KMS usage is proposed. A number of hypotheses are thus developed and were empirically tested using survey data obtained from employees in Chunghwa Telecom Company. The PLS software solutions wre seleted to validate the measurements and the structuralproperties of the proposed research model. The results suggest that employee performance is affected by employee satisfaction and extent of KMS usage, which are in turn jointly determined by knowledge maps fit, perceived usefulness, and perceived ease of use.

Keywords: Knowledge Management Systems, Technology Acceptance Model, User Satisfaction

1. INTRODUCTION

Knowledge management (KM) has become one of the most important developments in the new business environment [27, 35]. It is observed that many firms either have a KM in place or are planning to develop one. According to the analyst firm IDC (International Data Corporation), business spending on KM could rise from $2.7 billion in 2002 to $4.8 billion in 2007 [4]. This is not surprising that for the past few years surveys of Delphi Group have found KM and electronic commerce to be at the top of their strategic initiatives [18].

Even though firms have deployed KM, with mixed success, for employees to access, share, and apply knowledge using KM systems (KMS), it is understandable, when confronted with a new problem that they look to new decision-making methods for guidance. Many employees have tried using KMS to improve their tasks [25]. Some researches have focused on relationship between KMS usage and trust in them [16]. The emphasis of other studies is on the relationship between KM diffusion and perception variables [32]. Nonetheless, most studies have not investigated how employees can use knowledge to improve their satisfaction and performance.

Given these general arguments for the relationship between KMS usage and satisfaction/performance, there is a need for additional studies to enhance their basis in theory and empirical examination. One theory that may explain this relationship is put forth by Quaddus and Xu [32] that includes antecedent variables of KMS usage [26]. The antecedent variables hold that individual perceptions are key determinants for satisfaction of KMS usage. Lin and Hung [26] assert that knowledge map fits and personalization may enhance user's satisfaction in KMS usage. Moreover, the technology acceptance model (TAM) [8] has emerged as an important candidate for explaining the variables that motivate individuals to use information systems. The TAM proposes the causal relationship among the perceived ease of use and perceived usefulness, and the extent of information systems usage. We argue that in TAM, the external variable is an important antecedent of information systems usage. Therefore,

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our research makes important contributions to the growing body of information systems literature by examining the relationships between knowledge map fit and TAM in the model. To better identify the factors contributing to the formation of employee's problem-solving using KMS, this study extends TAM research by including employee satisfaction and performance constructs.

2. BACKGROUND AND HYPOTHESES

2.1. Knowledge Management Systems

Although knowledge management is viewed as one of the important issues for researchers and practitioners, the majority of employees have hardly perceived it of real value yet [28]. On the other hand, increasing contemporary businesses have recognized the value of knowledge management and thus have employed KMS [3]. KMS can provide a useful platform for individuals to not only obtain knowledge from the few employees who posses, but also for facilitating and assisting more effective knowledge management. Organization's employees use the KMS for creating a knowledge document, transferring knowledge to others, requesting knowledge from others, and providing two-way constructive discussion and communication [16].

2.2. Technology Acceptance Model

Technology Acceptance Model (TAM) is developed by Davis [7]. The model is based on the Theory of Reasoned Action (TRA) proposed by Fishbein and Ajzen [11]. TRA holds that an individual's behavior is predicted by his or her intention to perform the behavior. The theory assumes that an individual's behavioral intention is highly determined by both her/his positive evaluations of the behavior and her/his perception that significant referents think she/he should perform the behavior.

TAM has received much attention from many researchers. This theory has demonstrated its persistent explanatory value on user attitude and intention of using a wide range of IT including email [1, 8], word processor [1, 10], computer resource center [40], spreadsheet [2, 29], and the World Wide Web [23]. Additionally, TAM postulates that behavioral intention of use depends on the intention of use on information systems. The attitude toward use is based on perceived usefulness and perceived ease of use. Perceived usefulness is defined as the extent to which potential users expect using an IT to benefit their task performance [9]. Perceived ease of use is defined as the degree to which a user believes that using a particular system would involve not much effort [9]. Although Davis [7] does not detail what factors are exogenous variables, other previous researches have indicated what external variables are to be included in the IS [39]. Thus, TAM was designed to improve measures for KMS usage explanation. In this study, we regard the knowledge map fit as exogenous variables for KMS usage. The rationale for it is discussed below.

2.3. Research Hypotheses

Knowledge map is a format that adopts the scientific or technical literature's thought and communication [33]. It is not only a tool but also a skill. The knowledge and their relationship can be formed and emphasized [42]. This kind of knowledge includes stating the data authenticity and the database's summary. Those statements can be applied on the system procedures, rules and ideas [43]. It also can connect the knowledge into a map and clearly guide and create a useful path for the KMS user.

Some studies suggest that the knowledge documented in a KMS should be structured, well-classified, easy to use, easy to understand, and manageable for the user (Lai et al., 2009). Knowledge maps have the advantages of simplifying the relational complexity of knowledge, thus, by using knowledge map fit can help KMS user in a more structured manner to easily digest the knowledge in KMS. In this study, knowledge map is defined as the hierarchical taxonomies or structure of knowledge documents in knowledge management systems.

According to previous researches, knowledge map brings on effects at the key point to improve the KMS usage efficiently [17]. For example, Chung et al. [6] brings up the idea about the exploration of knowledge map frame to decrease the internet messages overload. To provide the knowledge map for the user to search and browse the knowledge has been proven easily feasible [20, 31]. Moreover, the coordinate of knowledge map should be considered and implemented when they execute the KMS. It is usually considered as the visual orientation and connection of the knowledge [13]. Although the knowledge map is a simple category, if the enterprise doesn't have the appropriate knowledge map, their employees will have difficulty searching the knowledge efficiently and easily through the KMS usage [22]. Based on the previous discussion, three hypotheses are drawn.

H1: Knowledge map fit is positively related to ease of use of KMS.

H2: Knowledge map fit is positively related to usefulness of KMS.

H3: Ease of use of KMS is positively related to usefulness of KMS.

Davis [8] brings up the idea of perceived ease of use and perceived usefulness. And he mentioned that the perceived ease of use will affect the user's perceived usefulness of information technology. If the potential users noticed it is easier to learn then they also will incline to find the system will probably improve their work efficiently. On the other hand, user-friendly KMS usage can increase the level of reliability on the system of employees. It also will help the employees to increase their willingness to use this system to deal with the knowledge style of routine work.

KMS usage's knowledge map can be used on the operation process, such as new product's development and invented learning and so on. In the new product development process, the knowledge map will be used on one of the sections of the procedures or how to make the knowledge to be working smoothly. On the other hand, for the invented learning, knowledge map is a significant document of the idea level and way to contribute to society. It also will help the knowledge guiding and consulting learning [25]. If the KMS usage lacks the appropriate knowledge map, it will make it hard for employees to complete their job and also will decrease their satisfaction of the KMS usage. Another two hypotheses are thus derived.

H4: Knowledge map fit is positively related to KMS usage.

H5: Knowledge map fit is positively related to employee satisfaction.

The user satisfaction means the employees are expecting benefits they can get after they use the KMS. The more useful of the KMS, the more satisfaction their employees can gain. The earlier reports from the Management Information System, MIS, indicate that user-friendliness, usefulness, accuracy, response time and reliability are the factors to value the system quality [10, 24]. There are more reports indicating the information system quality can increase the user's satisfaction by usefulness and user-friendliness [10]. A successful information system is significantly related to the user-friendliness and user's satisfaction which is confirmed in the past researches [34]. In addition, the KMS usage points out whether or not the information system will succeed depend on the user-friendliness and usefulness [21, 44]. Based on such observations, here's another two hypotheses.

H6: Ease of use of KMS is positively related to employee satisfaction.

H7: Usefulness of KMS is positively related to employee satisfaction.

These hypotheses are based on the technology accepted module to explain and predicate the user acceptance of the new system or new technology [9]. The technology accepted module is based on two special ideas to explain the user's acceptance of technology products which is perceived useful (the employees think this system can increase his performance) and perceived user friendly (the employees thought he can operate this system easily). The KMS usage will become easier if other conditions are fixed. It will lead their employees to be more willing to use this system. In fact, the usefulness and user-friendliness of KMS is more acceptable for the enterprise employees and they would like to use this system to complete more jobs. Hypotheses number 8 and 9 are given based on the discussion above.

H8: Ease of use of KMS is positively related to KMS usage.

H9: Usefulness of KMS is positively related to KMS usage.

According to past researches, if the technology system can match the user's demand, it will increase the user's satisfaction; but if it does not provide information the user needs, it will decrease the satisfaction and cause the user to turn to seek other sources [10]. The purpose of KMS usage is to match the user's demand; therefore, the employees will feel satisfied after they are using KMS usage. Because KMS usage satisfaction follows individual demand, it is also strongly knowledge-based systems. KMS usage satisfaction is frequently employed as a surrogate of KMS success and refers to the extent to which the system meets the needs of the employees. Furthermore, KMS usage has been found to influence employee performance. For example, Goodhue and Thompson [14] point out the individual performance is the level to complete the project. According to DeLone and McLean [10] their successful information system module, we know the operation of information system is significantly affected by the personal performance. Goodhue and Thompson [14] report also mention about how we can keep creative and recycle the knowledge by using the KMS to enhance employees' production capability, association's property and their ability to adjust to the external environment. Hypotheses number 10 and 11 are hence proposed.

H10: KMS usage is positively related to employee satisfaction.

H11: KMS usage is positively related to employee performance.

DeLone and McLean [10] address how user's satisfaction will be affected individually in the

successful information system module. User's satisfaction is the main target to evaluate the information system. To measure and analyze user's satisfaction can increase the production ability after they use the information system [5]. Bailey and Pearson [5] claim if they can increase the user's satisfaction then they can increase the demand of information system as well. In addition, we can infer from other researches that the user's satisfaction will affect the personal performance [35, 34]. Consequently, the last hypothesis of the research follows.

H12: Employee satisfaction is positively related to employee performance.

Figure 1 shows the proposed model based on above discussions.

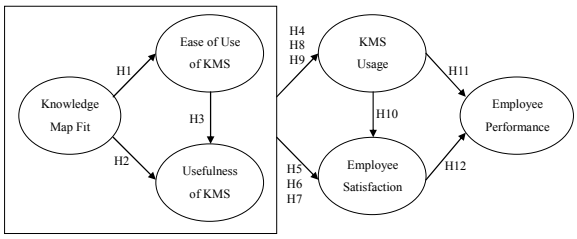

Figure 1: Research model

3. METHOD

3.1 Questionnaire Development

A questionnaire is developed to measure six constructs of interest to this study: knowledge map fit, ease of use, usefulness, extent of KMS usage, employee satisfaction, and employee performance. All constructs are measured using items that have been validated in prior researches and reworded to relate specifically to the context of knowledge management systems (Appendix A). First, the measurements for knowledge map fit, ease of use of KMS, usefulness of KMS are adopted from Lai et al. [22]. Next, KMS usage was measured using 4-item scale adapted from Igbaria et al. [19] and Teo [41]. Employee satisfaction, assessed by 3-item measurement is drawn from Shaw et al. [38]. Finally, Employee performance assessed by 3-item instrument is adapted from Goodhue and Thompson [14].

Before conducting the main survey, we perform a pre-test and a pilot test to validate the instrument. In the pre-test phase, instruments, scales, and questions of the surveys are reviewed by ten academic experts who are faculty members and doctoral candidates in the department of information management. Each of these academic experts respectively possesses the domain expertise corresponding to the constructs of the study. This phase increased face validity of the compiled items and improved the wording of instructions, scales, and questions. The aim of the pilot-test phase is to test the reliability of the instrument and to identify ambiguities including unclear questions or poorly worded questions. The questionnaire is tested in this phase by convenient sampling. The results of the pilot test are evaluated by using Cronbach's reliability test. Cronbach's reliability coefficient is first calculated for the items of each construct. The standard lower bound for Cronbach's alpha is 0.70 [15].

3.2 Data Collection

The data collected in this research are from Chunghwa Telecom employees in the northern, middle and southern branches in Taiwan. Taiwan's National Communications Commission (NCC) 2009 report mentions that Chunghwa Telecom has a 97.09% market share of district telephone network, 63.25% of long-distance telephone network and 55.95% of international telephone network. Based on these data Chunghwa Telecom is leading the communication market in Taiwan. However, Chunghwa Telecom is privatized and de-monopolized in the past decade. With increased competitions, many employees choose either to retire earlier to keep their original retirement benefits or pursue their alternative career in other newly setup telecommunication. Under this circumstance, it will cause many knowledgeable workers to leave. To avoid the loss of the professional knowledge is a major issue for Chunghwa Telecom. Therefore, we choose Chunghwa Telecom which is aggressive in implementing KMS usage in recent years to be our research object.

Chunghwa Telecom Company is a provider of telecommunication services. With this service perspective, researchers have suggested that the Telecom service industry divides its value-added activity through knowledge and technological cooperation, and that the Chunghwa Telecom government transfers the knowledge generated in company to all related users. Thus, the company's perspective matches the practice of KM.

We use the email questionnaire to collect our research date from Jan 2010 to Mar 2010. We mailed out 468 questionnaires to the Chunghwa Telecom Northern, Middle, and Southern branches. For those who do not respond we will contact via telephone and email to remind them to complete the questionnaires. We receive a total of 318 returned questionnaires with a rate of 67.9%. There are eight questionnaires not completed and determined as invalid. The total valid questionnaires is 310, the eligible rate is 66.2%. The characteristics of the respondents are presented in Table 1.

Table 1: The characteristics of the sample (N=310)

Profile of responses		Frequency	Percent	Profile of responses		Frequency	Percent
Department	MIS	3	1.0%	Work experience with the company (years)	0-1	0	0%
	Marketing	102	32.9%		1-3	7	2.3%
	Human Resources	7	2.3%		4-6	12	3.9%
	Administration	11	3.5%		7-10	4	1.3%
	Accounting	6	1.9%		11-15	21	6.8%
	R&D	29	9.4%		16-20	20	6.4%
	Labor Safety	4	1.3%		More than 20	246	79.1%
	Services	52	16.8%	Position of responder	Executive	12	3.9%
	Logistics	2	0.6%		Manager	37	11.9%
	Network Maintenance	65	21.0%		General manager	144	46.5%
	Customer Network	5	1.6%		Others	117	37.7%
	Others	24	7.7%	Total	310		100%

4. RESULT ANALYSIS

The data analysis of the study is performed using partial least squares (PLS), a structural equation modeling technique that has become widely accepted in recent years due to its accuracy and ease of utilization. PLS also places minimal restrictions on the sample size and residual distribution. Data analysis proceeds in two stages. First, we test the measurement model by subjecting our measures to a series of confirmatory factor analyses (CFA). Second, we develop a structural equation model to test our hypotheses.

4.1 Measurement Model

Table 2 presents standardized loading and other metrics for the item measures as well as reliability and validity measures. Hair et al. [15] suggest that in a sample of 150 respondents, a factor loading of 0.45 or above is significant. In this study, all items in the measurement model exhibit factor loadings ranging from 0.821 to 0.981 and are thus considered acceptable for the remainder of the analysis. The reliability metrics for all the six constructs, ranging from 0.925 to 0.980, also exceed the recommended threshold of 0.70 [36] and are fully acceptable. Average variance extracted (AVE) shows that eight AVE values exceed the recommended threshold of 0.50 [36].

Table 3 further displays the discriminant validity of the measurements. For good discriminant validity, the square root of AVE of a construct should be larger than that of the construct's correlations with the other constructs [12]. The data indicates that the shared variance among variables is less than the variances extracted by the constructs, the value on the diagonals. This reveals that the constructs are empirically distinct.

Table 2: Assessing the measurement model

Constructs/ Items	Mean	Std.	Standardized loading	Constructs/ Items	Mean	Std.	Standardized loading
Knowledge map fit				**KMS usage**			
(Composite reliability = 0.947, AVE= 0.816)				(Composite reliability = 0.960, AVE= 0.888)			
KMF1	5.458	1.271	0.882	KMU1	4.390	1.402	0.943
KMF2	5.268	1.210	0.913	KMU2	4.552	1.368	0.950
KMF3	5.265	1.215	0.915	KMU3	4.290	1.494	0.934
KMF4	5.106	1.176	0.903	**Employee satisfaction**			
Ease of use of KMS				(Composite reliability = 0.968, AVE=0.909)			
(Composite reliability = 0.925, AVE= 0.756)				EMS1	4.929	1.098	0.930
EUK1	5.416	1.140	0.849	EMS2	4.919	1.197	0.967
EUK2	5.090	1.336	0.821	EMS3	4.910	1.253	0.963
EUK3	5.477	1.230	0.920	**Employee performance**			
EUK4	5.013	1.329	0.886	(Composite reliability = 0.980,AVE=0.941)			
Usefulness of KMS				EMP1	4.568	1.332	0.973
(Composite reliability = 0.962, AVE= 0.863)				EMP2	4.587	1.299	0.981
UFK1	5.506	1.140	0.922	EMP3	4.613	1.388	0.957
UFK2	5.506	1.269	0.945				
UFK3	5.535	1.113	0.920				
UFK4	5.584	1.159	0.929				

Table 3: Discriminant validity

Constructs	KMF	EUK	UFK	KMU	EMS	EMP
KMF	**0.816**					
EUK	0.692	**0.756**				
UFK	0.595	0.670	**0.863**			
KMU	0.310	0.254	0.321	**0.888**		
EMS	0.581	0.482	0.482	0.594	**0.909**	
EMP	0.514	0.335	0.573	0.612	0.693	**0.941**

Notes: Diagonals represent the average variance extracted, while the other matrix entries represent the squared correlations; KMF: Knowledge map fit; EUK: Ease of use of KMS; UFK: Usefulness of KMS; KMU: KMS usage; EMS: Employee satisfaction; EMP: Employee performance.

4.2 Structural Model

The examination of structural equation model includes the coefficients of the causal relationships between constructs, which would validate the hypothesized effects, and the R-square values, which indicate the amount of variance in dependent variables explained by their antecedents. Figure 2 presents the paths and their significance on the structural model.

As shown in Figure 2, 54.2% of the variance in employee performance is explained by KMS usage ($\beta = 0.310$, $p < 0.001$), and employee satisfaction ($\beta = 0.509$, $p < 0.001$), providing support to Hypotheses 12 and 11 respectively. 53.8% of the variance in employee satisfaction is explained by KMS usage ($\beta = 0.442$, $p < 0.001$), ease of use of KMS ($\beta = 0.218$, $p < 0.05$), and knowledge map fit ($\beta = 0.338$, $p < 0.001$), providing support to Hypotheses 10, 7, and 5. Surprisingly, the data shows that usefulness of KMS has no significant impact on employee satisfaction. 32.6% of the variance in KMS usage is explained by knowledge map fit ($\beta = 0.201$, $p < 0.001$), and usefulness of KMS ($\beta = 0.226$, $p < 0.001$), providing support to Hypotheses 9 and 4. Again, it is to our surprise that the data shows that the ease of use of KMS has no significant impact on KMS usage. 48.2% of the variance in usefulness of KMS is explained by ease of use of KMS ($\beta = 0.496$, $p < 0.001$), and knowledge map fit ($\beta = 0.525$, $p < 0.001$), providing support to Hypotheses 3 and 2. Ease of use of KMS is significantly explained by knowledge map fit ($\beta = 0.092$, $p < 0.001$). These factors explain 47.9% of the variance in intention to read reviews, thereby demonstrating support for H1.

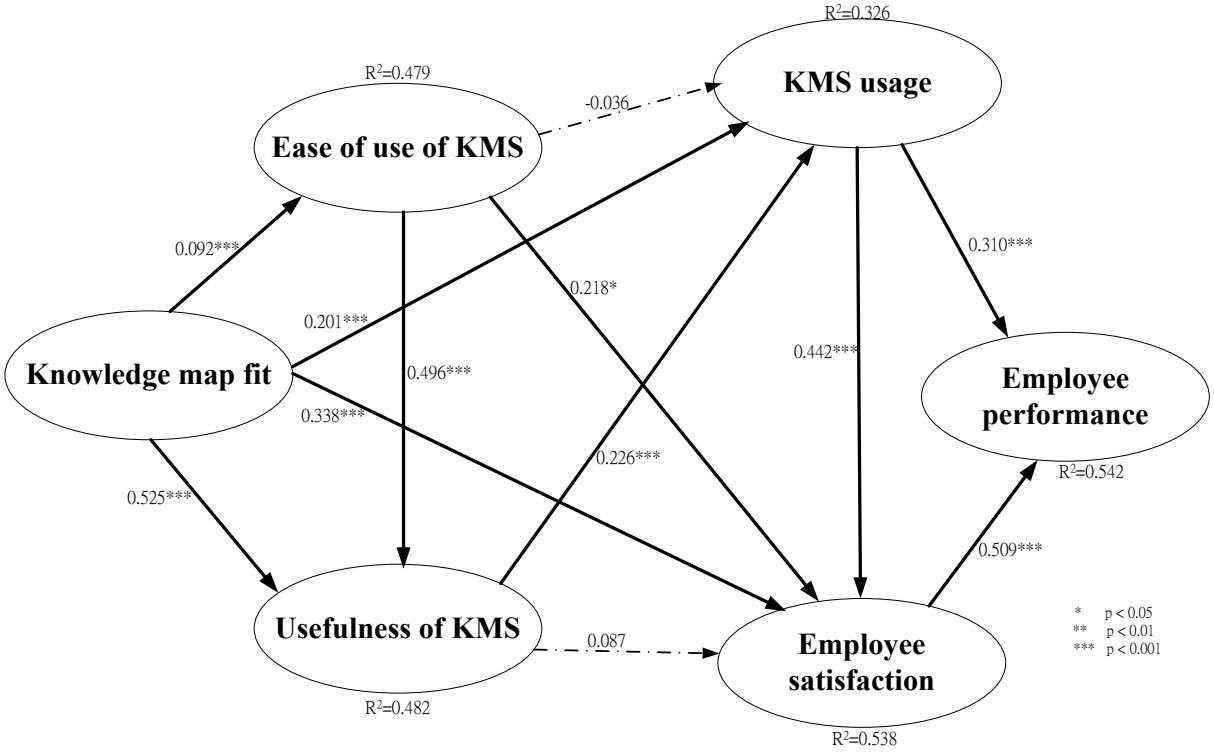

Figure 2: Results of PLS analysis

5. DISCUSSION

5.1 Findings

The result from the above analysis shows that the knowledge map fits and user-friendliness of KMS usage have a significant positive relationship and it supports Hypothesis 1. On the other hand, KMS usage's knowledge map will be realized more easily, and user-friendliness of KMS usage will be much better. This result has the same outcome as Lai et al.'s [22]. They both recommend emphasis on the knowledge map fit because it can increase employees' ease of use of KMS.

The result from this research indicates that knowledge map fit and usefulness of KMS usage had a significant positive relationship and it supports hypothesis H2. When the knowledge map fits more it can save time for KMS users to make decisions, have higher data accuracy, reduce the message overload, gain and recycle knowledge.

The research finds the user-friendliness and usefulness of KMS usage have a significant positive relationship and it supports hypothesis H3. When the employees have good and user-friendly KMS usage, they will rely more on this system to handle complicated situations. This finding maps with Lai et al.'s [22] as well.

The research observes that the knowledge map fit has a significant positive effect to the KMS usage and it supports hypothesis H4. In other words, when there are more complete knowledge maps of the KMS in the industry, its usage will be increased.

It is shown in this research that the knowledge map fit has a significant positive effect to the user satisfaction and it supports hypothesis H5. That means if knowledge map can be formed clearly then the employees' satisfaction to use KMS will be increased.

The research concludes that the user-friendliness of KMS has a significantly positive effect to the user satisfaction and it supports hypothesis H6. When the KMS usage is easier it will increase the employee's satisfaction. Looking back at the related researches, those results are the same as these ones [34, 21, 4544].

On the other hand, this research shows that the usefulness of KMS and user's satisfaction does not have a significantly positive relationship and it doesn't support hypothesis H7. Therefore, it means the usefulness of KMS will not affect the employees' satisfaction. This result contradicts with Lai et al.'s [22]. It is assumed that the reason is because the previously published findings do not consider enough users' demands. Therefore, when the employees use KMS they will not feel it useful and it will not increase user's satisfaction.

The research finds that the user-friendliness of KMS and its usage does not have a significantly positive effect and it consequently doesn't support hypothesis H8. It may mean the user-friendliness of KMS will not affect the employees to use the KMS. This result is different from Lai et al.'s [22]. We later find out that it may be because Chunghwa Telecom's employees feel the response from KMS usage is not clear, causing them to spend more time to operate the KMS usage and to feel their KMS not user-friendly.

Hypothesis H9 is validated by the study which shows that the usefulness of KMS and to the extent of KMS usage have a significantly positive relationship. It means the usefulness of KMS will affect the extent of KMS usage.

The result from this research demonstrates that KMS usage and user's satisfaction has a significantly positive relationship and it supports hypothesis H10. It means to use KMS will help employees to search the unknown knowledge and make better adjustments and decisions. It will increase user's satisfaction as well. This result corresponds with DeLone and McLean's [10]. In other words, they both propose the more positive experiences with KMS usage the more users' satisfaction.

The research validates that KMS usage and personal performance has a significantly positive relationship and it supports hypothesis H11. It means KMS usage can keep creating and recycling knowledge. It will increase employees' productivity, forward the organization's growth and enhance the ability to adjust to the external environment changes as well. This result is the same as DeLone and McLean's [10] which states that KMS usage will affect personal performance significantly.

Lastly, this research finds that employee's satisfaction and personal performance have a significantly positive relationship and it supports hypothesis H12. When we increase the employee's satisfaction it also will increase employees' production ability when they use KMS. This result again is in accordance with DeLone and McLean's [10] which believe that the higher user's satisfaction will affect more personal performance.

5.2. Implications

This study may be significant in both theory and practice. First of all, from the theoretical perspective, the technology acceptance module is adopted to discuss the relationship between KMS usage and user satisfaction for the first time. Also the knowledge map fit is creatively used as the external variable of the technology acceptance module to determine the connection between KMS usefulness and user-friendliness. Such pioneering employment of TAM and knowledge map it to study KMS demonstrates its applicability.

In the practical point of view, typically the enterprises pursue more profit and less cost. To reach this target, it involved many elements. This study shows that the KMS usage will enhance employees' work performance, both on efficiency and quality. If one can perform KMS usage well, one can improve the competitive ability and gain profit from it. Unfortunately, Chunghwa Telecom's KMS usage is not focused on the usefulness and user-friendliness of technology acceptance module. Consequently it results in their employees' spending more time to operate it and ignore the importance of KMS usage. If the company in the future can re-focus on the KMS usefulness and user-friendliness, it shall enhance the employees to use more KMS and decrease the obstacles among employees when they share the experience.

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APPENDIX A.
QUESTIONNAIRE ITEMS

Knowledge map fit (KMF)

KMF1. The knowledge classification of expertise in the KMS is clear and easy to understand.
KMF2. The classification of expertise in the KMS is consistent with my cognition.
KMF3. The branch structure of expertise in the KMS is clear and easy to understand.
KMF4. The branch structure of expertise in the KMS is consistent with my cognition.

Ease of use of KMS (EUK)

EUK1. Interaction with the KMS is clear and understandable.
EUK2. Learning how to use the KMS does not require a lot of my metal effort.
EUK3. I find the KMS easy to use.
EUK4. I find it easy to get the KMS to do what I want it to do.

Usefulness of KMS (UFK)

UFK1. Using the KMS improves my job performance.
UFK2. Using the KMS in my job improves my effectiveness.
UFK3. Using KMS in my job improves my productivity.
UFK4. I find the KMS useful in my job.

KMS usage (KMU)

KMU1. I frequently use KMS to search knowledge in my work.
KMU2. I frequently use KMS to contribute knowledge in my work.
KMU3. I regularly use KMS to search knowledge in my work.

Employee satisfaction (EMS)

EMS1. As a whole, I am satisfied with the KMS.
EMS2. As a whole, the KMS is successful.
EMS3. As a whole, the KMS is effectual.

Employee performance (EMP)

EMP1. Using the KMS, my performance of decision-making has been improved actually.
EMP2. Using the KMS, my decision quality has been improved actually.
EMP3. Using the KMS, my decision cost has been improved actually.

探討影響中華電信公司使用知識管理系統之前因與後果

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摘要

企業運用知識管理系統以提升員工績效已受到學界與業界的重視。然而，企業運用知識管理系統如何影響員工績效，學界普遍存在著不同的看法。因此，研究需要進一步探討知識管理系統可以經由哪些因素來影響員工績效與滿意度。基於此，本研究模型使用科技接受模式為基礎發展理論，探討影響知識管理系統使用的前因與後果。本研究對中華電信公司的員工實施問卷調查，並將所回收之有效樣本以PLS統計軟體進行測量模型的驗證，並進行結構模型分析。研究結果顯示，知識管理系統的使用會對員工績效與滿意度產生影響，而且知識管理系統的使用也會受到知識地圖適合性、認知有用性、以及認知易用性的影響。

關鍵詞：知識管理系統、科技接受模式、使用者滿意度
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