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# A Case Study on the Organizational Adoption and Implementation of Knowledge Management System

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## Abstract

*Knowledge management (KM) and knowledge management systems (KMS) have been paid much attention by both researchers and practitioners. Yet little is known about the enabling factors in organizational KMS adoption. In this paper, we first review the technology adoption literature at individual and organizational levels to investigate the factors of adoption in a general sense. Then, we specifically synthesize the factors with respect to the adoption of KMS by organizations. An exploratory case study is conducted to help understand the mechanism of KMS adoption. Three major forces are concluded as: (1) environmental context, (2) organizational context, and (3) technology characteristics. Some lessons from the proposed KMS experiences in the case are suggested for other companies' attempting to adopt KMS in their practice.*

**Keywords:** Knowledge Management (KM), Knowledge Management System (KMS), Adoption, Implementation, Organization, Factors

## 1. Introduction

Knowledge is increasingly becoming the driving force of economic growth, social development, and job creation (Okunoye and Karsten, 2002), and a significant organizational resource (Alavi and Leidner, 2001, Nonaka 1991). This has led to a growing interest in creating, accumulating and managing knowledge and other intellectual assets such as experience, expertise, and know-how. Consistent with this interest by both academics and practitioners, knowledge management (KM) and knowledge management system (KMS) have been studied widely in western countries in recent couple decades. The objective of KMS is to support creation, transfer, and application of knowledge in organizations (Alavi and Leidner, 2001).

Along with the trend that organizational and managerial practice has become more knowledge-focused (Alavi and Leidner, 2001), information systems (IS) researchers have done a significant amount of prescriptive and theoretical work. The research topics include the processes of building KMS (Salisbury, 2003), the importance of technology in KM and the integral role of people in knowledge technologies (Al-Hawamdeh, 2002), the variables affecting the adoption of KM technologies (Ryan and Prybutok, 2001), the crucial factors for KM success (Krogh, 1998; Massey et al., 2002), knowledge adoption by knowledge worker (Sussman and Siegal, 2003) and influential factors on information technology use by knowledge worker (Lewis et al., 2003). However, little theoretical work has been done in the development of theories of KMS adoption despite the fact that organizations are eager to explore the full values of KMS to enhance their competence in industrial operations. Thus, there is a need for a review and synthesis of existing adoption literature in order to progress toward a better understanding on KMS adoption and implementation in organizations, which is currently lacking in KM research.

Therefore, this research is aimed at two questions. (1) What factors enable the organizational adoption of KMS? (2) How these factors affect the organizational adoption decision?

This research has the following objectives. First, take an adoption perspective to explore the driving factors of KMS adoption in organizations. We first review user acceptance literature and technology adoption studies in the following section. The primary purpose of this review is to investigate the characteristics associated with technology adoption and acceptance in a general sense. The identification and explanation of these driving factors are discussed in the third section. Second, conduct a case study to help understand the mechanism of KMS adoption. The methodology is presented in the fourth section and the case is addressed in the fifth section. At last, a few implications for research and practice are concluded in the final section.

## **2. Literature Review**

In trying to explore the driving factors of KMS adoption, we rely largely on the review of IS adoption studies up to date. It is partly because the IS adoption study has been rather mature and a lot of theoretical models and empirical results have been accumulated in the field. But the main reason is KMS by nature is one kind of IS in organizations. Therefore KMS adoption should involve (or build upon) the major factors in IS adoption. However, the assumption of this research is that IS adoption and KMS adoption could be different. This judgment can be argued in the following part. First, the operational or managerial object in KMS is knowledge, an idiographic resource that may lead to sustainable competitive advantages. Second, tacit knowledge is hard to conceptualize and identify, but it needs to be “managed” by a KMS. Third, given the notable investigation on the linkage between the capacity of a firm to generate and manage knowledge and its competitive performance, “little attention is paid to the ongoing transformations, translations and reconfigurations occurring along the knowledge chain” (Patriotta, 2003), which the focus of KMS study. Last, KMS is mainly adopted in knowledge-intensive firms (KIFs) and KIFs “may have distinctive cultural characteristics due to the nature of the work and workers they employ” (Robertson and Swan, 2003). All these imply that KMS may be distinct with other ISs in terms of the unique object it concerns and manages, the complex focuses, and the attributes of its adoption organizations.

In the following part we start off the literature review by examining factors in IS adoption. The dramatically expanded capital investment in information technologies within organizations (Westland and Clark, 2000) has been stimulating the research interest in technology adoption at organizational level. Whereas the decision process at the group level is much more complicated since it involves a population across the organization (Kimberly et al., 1990). In order to better understand IS adoption, Kimberly et al. (1990) indicate that one needs to understand the mix of factors that affect adoption decisions at the level the decisions get made. Therefore, we target our study at organizational level and build the theoretical background on the classic Innovation Diffusion Theory (IDT).

Grounded in sociology, IDT has been introduced since the 1960s by Rogers to study a variety of innovations (Venkatesh et al., 2003). The innovation-decision process is the process through which the adopter passes from gaining initial knowledge of an innovation, to forming an attitude toward the innovation, to making a decision to adopt or reject, to implementation of the new idea, and to confirmation of this decision (Rogers, 2003). Although the decision-making may be centralized in an individual or some who are at top management level, innovation diffusion is an

organizational behavior. It is assumed that the organizational purpose of innovation (a KMS in this study) adoption is to improve worker performance (Templeton and Byrd, 2003).

Rogers (2003) points out five perceived characteristics of the innovation should be studied: relative advantage, compatibility, complexity, triability, observability. Nevertheless, many researchers argue that classical diffusion variables are not sufficient to predict the complex organizational adoption and other variables should be investigated (Fichman, 1992; Zmud, 1982; Chau and Tam, 1997). Sultan and Chan (2000) propose a framework consisting of individual factors, group factors, technology factors and company factors to study the adoption of Object-Oriented computing in the software company. Chau and Tam (1997) study characteristics of the innovation, organization technology and external environment context and their relationship with the adoption of open systems in organizations. Nystrom et al. (2002) considers organizational size, age and slack resources impact the organizational innovativeness, while the organizational climate acts as a moderator. Chwelos et al. (2001) provide empirical support that perceived benefits, readiness and external pressure are three factors that determinate the adoption of electronic data interchange. However, corresponding to Chau and Tam's (1997) suggestion that "innovation adoption decisions must be studied within appropriate contexts and with variables tailored to the specificity of the innovation", we argue that the adoption study on KMS should incorporate some factors specified, different from the common factors in the technology adoption.

### **3. Adoption of KMS in Organizations**

Tornatzky and Fleischer's work (1990) provides such a framework that incorporates three components: organizational context, technological context, and external environmental context to study the information systems adoption. Taking the points of this framework, Ryan and Prybutok (2001) tailor its use specifically for investigation of the adoption of KM technologies, which study consolidating the values of this model in KM research. In this work, we also use this framework as a starting point but suggest the sub-factors in each context component in order to more precisely describe the KMS adoption in organizations.

#### **3.1 Organizational Context**

Academics have no consensus on the important organizational factors in any IS adoption. For different IS, various organizational factors are presented and observed. But basically, three dimensions of organizational context are mentioned more frequently in KM papers: management support, company structure, and corporate culture. In this section, we illustrate the identification and explanation of these three factors and their role in KMS adoption.

Research into IS innovation considers *management support* as a critical factor in successful adoption and implementation because it is resource intensive (Sharma and Yetton, 2003). The findings of Lewis et al. (2003) suggest that beliefs about technology use can be influenced by top management commitment to new technology. Management's aggressive attitude on technology is reflective of the firm's willingness to keep ahead of competitors and the top management support is always the continual active and enthusiastic approval of senior executives for a proposed innovation (Sultan and Chan, 2000). Key managerial influence is an important dimension in KM success in Nortel Networks (Massey et al., 2002). Supportive attitude and concrete support from top management could be one of the most crucial driving factors in

KMS adoption, because the KMS must deal with the processes of knowledge creation, storage/retrieval, transfer, and application (Alavi and Leidner, 2001) throughout the organization and thus are extremely resource-consuming. It is also because KM activities rely heavily on the active involvement of the employees, compared with other business functional systems which are likely to be imposed on daily usage.

*Company structure* is considered as an arrangement and interrelation of members to each other within an organization (Sultan and Chan, 2000). Centralization, formalization, and integration are three major constructs in existing literature (Sultan and Chan, 2000; Chau and Tam, 1997; Damanpour, 1991). It is generally defined that centralization refers to the extent to which authority and decision-making are concentrated at the top of the organizational hierarchy; formalization is the degree of emphasis placed on following rules and procedures in role performance; integration is an act in which processes are incorporated into a whole. Generally speaking, centralization, formalization, and integration have negative relationship with organizational adoption. Company structure is identified as a key factor in the adoption of many other technologies within the organization. KMS is not exceptional. Nevertheless, we stress the interplay between company structure and KMS adoption and implementation. It is because KMS is a system compassing the whole organization and affecting all functional departments and people. Besides the effect of company structure on KMS adoption decision, as suggested in classic IS research, the adoption of KMS in organizations may also impact the company structure in order to operate the system smoothly and effectively.

*Corporate culture* is the central dimension in the classic 7S McKinsey model (Waterman, 1982). Corporate culture involves the shared meanings, norms and values that have been collectively constructed over the years. Schein (1996) defines it as: "A culture is a set of basic tacit assumptions about how the world is and ought to be that a group of people share and that determines their perceptions, thoughts, feelings, and, to some degree, their overt behavior." Many researchers identify culture as an important antecedent of innovation (Fischer and Farr, 1985; Lai and Guynes, 1997; Zmud, 1982). Culture will be a particular driving force for KMS adoption. If we translate the notion of culture – with respect to knowledge sharing – into more concrete terms, the culture conditions relevant to KM are community, collaboration, dialogue, trust, and empowerment. Due to the nature of sharing, it is no doubt that KMS adoption will come across considerable difficulty without the positive culture.

### ***3.2 Environmental Context***

The external environmental context is the climate in which an organization conducts its business (Ryan and Prybutok, 2001). It is assumed that the influences arising from several sources within the competitive environment surrounding the organization will "encourage" the technology adoption (Chwelos et al., 2001). For Nortel, the key environmental influences such as competition, governmental policy, and technological opportunities in the market are considerable factors in the success of KM (Massey et al., 2002). Grover and Goslar (1993) find that environmental factors explain differences between adopters and non-adopters of telecommunication technology initiatives. In this study, we consider environmental context mainly as the *competitors' pressure* that may lead to the attention of organizational adoption of KMS

In exploiting the possibility of adopting KMS, we assume that the corresponding *requirements from business partners* in the value chain can affect the organizational intention of adoption, especially when the organization is in a "high-knowledge

industry” (Ryan and Prybutok, 2001). However, when specified to KMS adoption, the influence from the external environment could be a minor force, compared with the factors in organizational context.

Of course there may have a number of environmental factors that influence IS adoption, such as political regulations, market competition, technological advance, etc. However, when limiting to the KMS adoption in this research, the above factors are not observed to have obvious influence, if not irrelevant. Based on knowledge-based view of the firm, knowledge is a dominant resource that may lead to long-term competitive advantages. In other words, it is more related to an organization’s internal capacity building and enhancement, rather than coming up with external trends. This supports our factor selection in the environmental context.

### **3.3 Characteristics of KMS**

The characteristics of the innovation itself is one of the four key factors in IDT. Whether the innovation has perceived benefits, whether it is too complex to learn and use, and whether it is compatible with the existing infrastructure in the organization are three main questions before the management makes the adoption decision. It is widely agreed that the higher perceived *relative advantages*, the greater intention to adopt. Moreover, the *complexity of the innovation* usually has a negative relationship with the adoption while the *compatibility of the innovation* positive. These three constructs are in coincidence with the technology factors in Sultan and Chan’s (2000) conceptual framework.

KMS adoption cases usually happen in the organizational level rather than within any departmental scope. That makes “relative advantages” a vital determinant for organizational decision maker. Moreover, the advantages should be integral rather than isolated in any separated departments and the complexity and compatibility are more meaningful in KMS adoption than other characteristics such as triability and observability because all individuals are the end users.

Following the description of our theoretical discussion on KMS adoption at organizational level, a qualitative study is considered necessary as a first step for us to understand the phenomenon and help refine a theoretical framework for the future study. Besides the adoption process, we further describe the implementation process of KMS in the subject company, which purpose is to keep the integrity of the case on one hand, and on the other hand, to explore the potential insights of future study of the implementation of KMS as an extension.

## **4. Methodology**

This research is based on an exploratory case study of a single company. This methodology is used to not only describe but also explore if relatively little previous research exists on the topic, according to Hakim (1987). A famous Chinese state-owned company in medical industry is chosen to provide the research settings. The choice of addressing a Chinese company’s case is based on the two rationales:

1. While the western companies are putting much effort on KM program and promoting the successful experiences, KM in China has a relative short history (He, Lee and Hsu, 2003). 74% of the respondents in “KM2002 China Survey” hold the viewpoint that applications of KM in China are “just beginning” and about 73% of respondents think necessary to introduce KM. It is a good example for other Chinese enterprises in their KM practice. This initiative of guiding and pushing the adoption of KMS in China is verified by the fact of rapid development

of KM in China, which can be witnessed by Landray, a Chinese KM solution provider and consulting company. From 2001 to 2003, its sales in Shenzhen (one of the biggest cities in China) has an annual growth rate of 400% (Guo, 2003).

2. The driving factors, supposed results of this case study, are generalizable to the KMS adoption cases in other countries and regions. Considering the difference in regions and countries and the specific local organizational factors that could affect KM (Okunoye and Karsten, 2002), this study on the KMS adoption and implementation in Chinese businesses has its values for researchers in other countries.

This case study design is characterized by the use of first-hand interview and secondary sources simultaneously. Some articles revealed in Chinese websites (by way of successful cases from industrial customer's and vendor's perspectives) are collected to act as the basic understanding of the company's KMS practice. Later on, semi-structured interviews with the responsible persons in KMS project are conducted by one of the authors in order to develop a deep interpretative account of the whole process of adoption decision and implementation. The interviews are generally lasting around one and a half hours. Finally, some key informants are continually communicated via e-mails and telephone calls. As a respect to the interviewees' mind, we omit the real name of the interviewing company in this paper.

## **5. Case Study**

X Company is a distributing subsidiary of a large-scale comprehensive enterprise group with pharmaceutical industry as the leading section in China, which owns tens of subordinate enterprises in more than ten provinces and cities through over the country. As a professional distributing subsidiary, X is devoted to the distribution and promotion of medicine, the products of the manufacturing subsidiary of its group mainly, and some other good overseas medicines. It has over around thousands employees, most of them sales representatives working in the branches in different provinces. X Company can be considered as one of the pioneers in the practice of knowledge management in China, which raises the interest of both the domestic researchers and practitioners who have a schedule of introducing a KMS. After more than three years implementation, the KM project has stepped into a phase of stable operation. These facts justify the study of the KMS adoption and implementation process and the key factors which make it successful.

### ***5.1 Perceived Needs***

X comes across the communication problems firstly. In order to enhance the sales volume, the company adopts a rather flexible structure – departments may be created, combined, and withdrawn relatively easily and frequently, and the personnel changes may also happen from time to time. Although the efficiency increases, the changeover makes the generation and share of the organizational knowledge rather difficult. Many employees leave their workstations before they can accumulate some working knowledge. Some valuable proposals and consulting reports are locked in particular workstations, then, are hardly shared with others. The departmental working documents are kept on paper base separately so that some departments repeatedly work on the job overlapped in functions. Furthermore, one of the characteristics of this kind of company whose business is retailing and distributing, and that most of the employees have workforces outside of headquarter. Regional sales managers spend most of their time at their local sites. The remote nature of their work makes them extremely rely on the communication with headquarter for getting the documents and

transferring reports. Telephone, fax, email and other telecommunication technologies are used. The company has considered setting up a system to integrate the information flows within the organization since the establishment of its IT department in 1998. Its objective is to integrate the business operation and internal affairs processing, to facilitate the collaboration and coordination of different departments, and to help the communication between its business departments and external customers.

## ***5.2 Decision-making of the KMS Adoption***

### ***5.2.1 A good KMS – Lotus!***

In 2001, the IT department comes up with the Lotus. The Lotus' idea of integrated knowledge management solution, including technology, service and training, grasps the attention of X Company.

At that moment, several separated systems are working simultaneously within the organization: the financial department uses Kingdee software, the purchasing department and human resource department also have their own systems. All of these sub-systems are incompatible. Lotus advocates a three-phase KM philosophy: share, communication, and collaboration. It emphasizes the value of knowledge and focuses on the organizational workflows, which happens to have the same view with X Company. X has a widely spread distributing network all over the country. In order to coordinate the business plans and activities in different sales units and enhance the organizational competence by sharing knowledge and experiences, X is eager to develop a reliable KM platform. This platform should include a knowledge base which is in support for searching and repository, which can scientifically collecting, organizing and storing the huge amount of information produced in the daily business operations, such as letters, memos, working plans, orders, contracts, customer profiling, market information, competitors' information, etc. X Company thinks that the KM theory in Lotus can fit its needs for creating values to build upon the organizational competence and improving the managerial performance.

### ***5.2.2 Management's support***

X Company has an active history of pursuing the new technology in the market. It has adopted a number of relevant technologies for business purposes. As mentioned above, several different business sub-systems are running inside the company. Moreover, the company is intended to develop IT at a strategic level. Just based on such an idea, the company starts to implement the ERP project in 2000. At that time, X Company has over 2000 employees across China. After making the decision to build an integrated internal business system, the top management approves a considerable budget for buying portable computers for all regional sales managers and building the intranet within the company. In 2001, the ERP project is completed and a powerful business operation platform puts in use.

Another upcoming problem is how to integrate the administrative workflows and build an internal affair-processing platform. After all, it is the peak time of IT development in X Company from the year of 2000 to 2001. What the management needs to do is evaluating the advantages of certain products or systems, comparing the potential benefits with the organizational requirements and making the decision for adoption. Although the budget for buy-in any advanced system is rather costly, it is not the major concern of such a company as X, a positive seeker in the journey of technological solutions.



### ***5.2.3 Organizational Structure***

The nature of subsidiary determines that X Company has some inherent characteristics in organizational structure. The group that X belongs is a state-owned business unit. Therefore, the authority and decision making are centralized in the top management level, and in some cases, in corresponding supervisory departments in the group. Furthermore, some governmental administrative policies may have more impact on the companies in the state-owned category. Before we discuss the formalization degree of X Company, it's better to make a rough judgment on the medicine market in China. Chinese medical industry is dual in marketing operation principle: relatively formal in the drugstore channel, while informal, to a tolerable degree, in the hospital distributing channel. In such a typical business environment, X Company is no exception. However, in recent several years, the company is trying to make a balance between the formalization in role performance and the working flexibility. Lastly, if considered from the whole enterprise group point of view, it is highly integrated in value chain.

### ***5.2.4 Corporate Culture***

Corporate culture is undoubtedly an important factor in any innovation or transform. A positive, aggressive corporate culture will foster the adoption of new technology while the conservative culture may impede the innovative ideas and behaviors within the organization. In X Company, people commit a favorable climate for knowledge, expertise, and experience. X being a distributing company, the competition-orientation among different regional branches inherently exists, which might be hinted and strengthened by the daily updated regional sales list posted besides the entrance of the general manager's office. Given the condition that the whole company advocates knowledge and technology, people rarely have the consciousness of transferring their knowledge resources in hand to other departments or individuals. Sometimes it seems that they are unwilling to do so. Sharing and coordination are difficult to find their way here. However, that is one of the major motives for X Company to adopt the KM solution – to change it!

### ***5.2.5 Industrial Environment***

At that time, many companies in medicine industry in China are paying much attention to KM and its solutions. Some competitors even start a KM project earlier than X Company, although not so well known as X in the future. "Quite lot members in this industry are considering KMS, so we are not the first one. But we don't deem it a pressure for our choice to adopt KMS because the first driver is our need inside." A key person in KM project team in X Company says so. Integrating the knowledge of business partners is the blueprint for X in the next stage, but not a driving force. KMS adoption in X Company is typically endogenetic.

After the assessment and argumentation, X Company decides to adopt the Lotus KM solutions. At the end of 2001, a multi-departmental KM project team comes into existence. Except for technical personnel from IT department, one to two staffs from each functional department are assigned to be the team members. On account of no existing successful KM project in China for reference, X Company chooses a luxury scheme – to set up a tailor-made KMS.

## ***5.3 Implementation Process***

### 5.3.1 Preparation

In order to implement the KMS smoothly within the organization, X Company pays a lot of efforts in the preparation stage. From February to March in 2002, KMS team members cooperate with the outside consultant to conduct the internal needs identification for a second time. They meet with all departments one by one, identifying the relevant knowledge in their tasks and analyzing the working processes.

*“We realize that it will be a disaster if the employees are fed up with any change in working habits or stand against the upcoming system. Therefore, we are devoted to involving the existing reasonable habits, styles, and managerial philosophy into the new system. Only when the changes are agreed by the users of particular department can the next step of development start.”*

At the same time, the KMS team initiates a special discussion in the corporate magazine. All employees are strongly encouraged to air their opinions on the future KMS. Posters which broadcast KM theories, modules, and implementing process of this project are all around on the walls of lifts, corridors and offices. Communication by all these means has made great progress. Individuals have a shared vision for the coming KMS and commit their belonging to the project. “When will our KMS come to use?” Many colleagues ask so when they meet with any KMS team members.

### 5.3.2 Planning

X Company has a clear plan for the implementation of KMS. It is estimated to have a span of five phases, each done in one year. Table 1 is a brief list of the goals in every phase.

Phase	Period of Year	Functions Expected
I	2001~2002	<ul style="list-style-type: none"> <li>● Knowledge collecting, storing, sharing and transferring</li> <li>● Information (official documents) releasing</li> <li>● Online application &amp; approval, business processing and application processes</li> </ul>
II	2002	<ul style="list-style-type: none"> <li>● Improved communication</li> <li>● Departmental portals</li> <li>● Preliminary integration of business systems</li> </ul>
III	2003	<ul style="list-style-type: none"> <li>● Intra-departmental collaboration via the system</li> <li>● Personalized working section, personalized service</li> </ul>
IV	2004	<ul style="list-style-type: none"> <li>● Knowledge map, expertise repository</li> <li>● Integration of different administrative application systems</li> </ul>
V	-	<ul style="list-style-type: none"> <li>● Integration of business platform and application platform</li> </ul>

Table 1. A list of KMS implementation phases in X Company

### 5.3.3 Early Practice in KM

The KMS emphasizes three main themes: (1) knowledge accumulation, including plans and reports, cases, training and exams, with a purpose of abstracting the knowledge in various work stations and helping knowledge transformation from tacit to explicit; (2) traditional OA functions, such as administration of meeting and

planning, which aims to improve the office efficiency; and (3) Cultural community, consisting of news, employees' information, forum, etc.

The employees can get access to system after logging in with their username and password. Then, they can visit the corresponding resources with respect to the given authority. All the administrative documents have been posted and updated online. Furthermore, the employees can tailor their own interface according to specific job nature, personal interests, etc. Online instant message, mobile short message, emails...many alternatives benefit the communication among the system users. Another crucial reform is that project leader, after completing the project, needs to organize the relevant information and put it into the project management module in the KMS. Thus, some precious materials such as business proposals, consultant reports and research reports can be deposited in the organization, rather than individual, and potentially can be shared by other users in the future.

X Company adopts both "push" and "pull" strategies to promote the usage of the new KMS. In the initial stage of system implementation, there is a regulation that people must take the consequence of any mistake or delay if they didn't get in time the administrative documents posted online. The company encourages its employees to write and publish KM articles in the magazine and virtual community to comment on the new KMS and share their experiences, ideas with others. Six months later, each day the number of users who log in the system has count for 75% of all employees.

At present, the KMS is playing effectively and efficiently in the business operation of X Company. More and more valuable knowledge documents are created and stored by category in the system. People actively participate in knowledge creation and transmission in working teams. Involvement and trust are key values in the organization. A lot of cooperation and collaboration are on the way. It is no longer a project, but everyday working practice. With this KM platform, the company has achieved the internal harmony and coordination, and enhanced the working quality and efficiency. Now the top management is considering link the assessment policy with the knowledge contributions of individuals. X Company says its KMS is still in phase III. Gain benefits, as well as face real challenges – X Company has a long way to go on its knowledge journey.

## **6. Conclusions and Implications**

We conduct an exploratory case study to describe the adoption and implementation processes in an organization which practices KMS successfully in China. Based on the experience with KMS in X Company, the following lessons can be formulated:

- As one of the prior conditions of innovation adoption in classic diffusion theory (Rogers, 2003), perceived needs are valued in particular in KMS adoption. In this sense, IS adoption and KMS adoption share the "perceived needs" as one of the most key factors.
- Despite the external environmental pressures could be an enabling factor, we find in our case that it is not necessarily vital as the internal needs for organizational adoption decision. External context is usually a key factor in many IS adoption cases, however, KMS is comparatively unlikely to become one kind of industrial standard. That could be part of the reason that KMS is driven inherently.
- The proposed KMS should have a technologic fit with the particular requirements of organization and care the existing working style and habits. As one integrated organizational capacity, the management of knowledge inevitably needs the adjustment of organizational structure. At this point, the

affected scope in organizations and affecting strength of KMS are beyond other ISs.

- Identify a senior management champion who genuinely believes the benefits of proposed KMS will nourish the adoption and implementation of KMS in organizations. Push and pull strategies by management are effective in stimulating the system usage. KMS is usually a comprehensive system in which the knowledge creation and sharing is key to success. Other than ordinary ISs, KMS is not mandatory in usage. In other words, the employees will not be punished due to non-engagement in the KMS. Therefore, the management support is far more critical in KMS adoption and implementation.

By leveraging the conclusions from the proposed case, Figure 1 depicts an integrated picture of various forces affecting the KMS adoption in organizations.

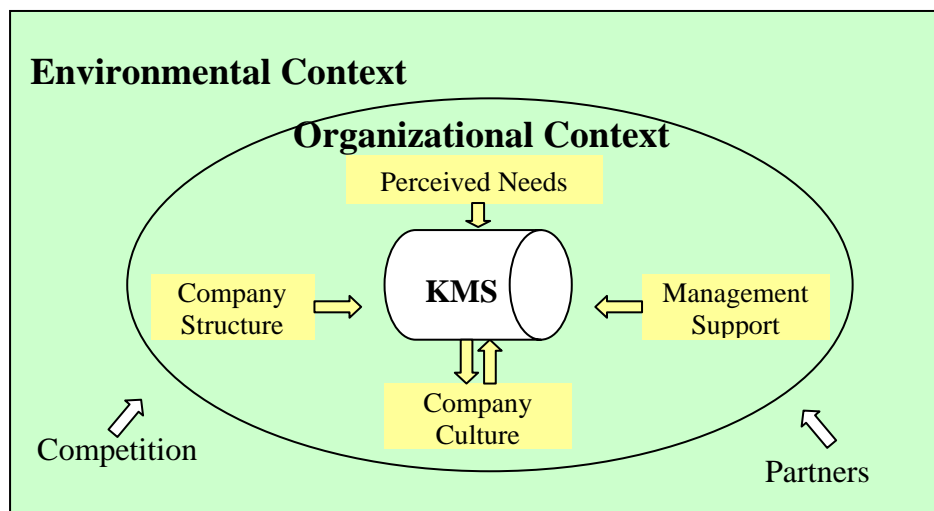


Figure 1. Forces Affecting KMS Adoption in Organizations

The research has both theoretical and managerial contributions. Theoretically, it adds to the existing body of literature on KM by investigating the key factors affecting the KMS adoption of an organization. As a preliminary study, this paper depicts a rough framework in which environmental, organizational contexts and KMS itself interact to the adoption of KMS. It calls on a further, more detailed study on this research topic in order to present a better understanding on KMS adoption in organizations. For the practitioners, they can also get some meaningful insights on KMS adoption and implementation from this successful case. Specifically, this study may help the organizations better manage a favorable environment for organizational KM practice. Also, it reveals a piece of picture that how the KMS has been adopted and implemented in Chinese companies recently.

This is a limited research based on the synthesis of existing literature and a simple case examination. However, we expect a prospective research future on this issue on a generalized basis and more detailed discussion on other potential factors affecting the organizational adoption of KMS, which could be meaningful in guiding the KM practice of businesses in the era of knowledge-based global competition.

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