Research Article

Impact of Leadership Support on KMS-based Knowledge Seeking Behavior: Lessons Learned

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Abstract: KM is a strategy that improves organizational performance and survival in a business environment. It is a challenging scenario for the organizations to manage their knowledge properly; in practice, a small amount of missing knowledge sometimes causes a great delay in the project. KMS are becoming an increasingly popular tool of KM in software development organizations. Tempting employees to seek knowledge from KMS remain an important concern for researchers and practitioners. Leadership support has been widely recognized in many studies as an important driving factor of knowledge seeking and contributions; however, the role of leadership support in promoting knowledge seeking behavior using KMS has not been adequately addressed. The purpose of this paper is to examine the leadership support and its relationship with the success of KMS as perceived by employees in China's software development organizations who are using KMS for knowledge seeking. The data which were collected from a survey of 73 employees working in different software development organizations of china were used to test the proposed research model. The results of the survey revealed that leadership support is positively related with employee's continuous intention of seeking knowledge. Further, Leadership support helps in promoting the use of KMS for knowledge seeking within organizations. This analysis is vital for senior management and leaders of the organizations who want to make their KMS successful, and to establish a knowledge sharing capability of their employees. In doing so, leaders should focus their efforts towards promoting KMS-based knowledge seeking behavior in their organizations.

Keywords: Continuous intention of seeking knowledge, Knowledge Management (KM), leadership support, perceived seeking efforts, perceived usefulness

INTRODUCTION

Software development organizations not only have to overcome the associated challenges of time and budget constraints rather they have to compete with others in order to sustain their survival in business environment. Organizational KM is considered as a critical factor for sustaining an organization's competitive advantage. Keeping in view the importance of KM, an increasing number of software development organizations have deployed various KM initiatives, of which Knowledge Management Systems (KMS), an Information Technology (IT)-based system for knowledge sharing, is a common type of enterprise solution (Basri and Connor, 2011). Although these KMS tools are very helpful for the organization but the problem is that, some organizations are disappointed with their investment in KMS, owing to the observation that employees do not use KMS actively and frequently for knowledge seeking and contribution (Quigley *et al.*, 2007; wasko and Faraj, 2005). Without using KMS properly, it is not possible to get benefits from it. Therefore, it is important to understand that how knowledge sharing using KMS can be promoted within software development organizations in order to get maximum benefits from these KM systems.

The 2 main distinct but interrelated facet of knowledge sharing are knowledge seeking and knowledge contribution which are considered equally important for promoting knowledge through KMS (Wei and Kwok-Kee, 2009; kankanhalli *et al.*, 2005a; kankanhalli *et al.*, 2005b). There exist many validated studies on the factors that promote knowledge contribution; that is the willingness to contribute and share knowledge with others (wasko and Farad, 2005; Bock *et al.*, 2005; Lin, 2007) and consider it more important than knowledge seeking for promoting knowledge. Other studies do not distinguish between knowledge seeking and knowledge contribution, rather they emphasize on the successful use of KMS (Wei and Kwok-Kee, 2009; Kulkarni *et al.*, 2007; Tiwana and McLean, 2005a; Tiwana and Bush, 2005b). However, there exist only few studies that focus on factors influencing knowledge seeking behavior using KMS, with few noteworthy exceptions (Bock *et al.*, 2005; Wei

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et al., 2009). Therefore, we target the KMS-based knowledge seeking behavior in this study.

Leadership is an important enabling factor which leads the employees towards seeking knowledge via KMS. Abundant research discusses the importance of top management and leadership support in knowledge seeking and acceptance (Wei and Kwok-Kee, 2009; King and Marks, 2008). Leadership can be defined as a process through which leader influences other team members to achieve specific shared goals (Al-Ani and David, 2009). Despite of the importance of leadership in knowledge seeking, it has not been studied enough in the literature on knowledge seeking using KMS. To fill this gap we sill study: How leadership support affect KMS-Based knowledge seeking behavior of the organization's team members?

THEORETICAL BACKGROUND

This section reviews two bodies of literature that constitute the theoretical background of this study:

- Firstly, an IT adoption theories, as users perception of technology is a key driver which enforce towards knowledge seeking from the KMS.
- Secondly, the importance of leadership support in promoting knowledge seeking behavior within the organization. In this study we will focus on understanding the role of leadership support in KMS-based knowledge seeking behavior.

IT adoption and KMS: KMS is an IT-based system; therefore, some intention-based model such as Technology Acceptance Model (TAM) can be applied to explain the user's behavior towards seeking knowledge from KMS (Hong et al., 2006). According to TAM, IT usage intention is determined by 2 factors:

- Perceived usefulness, which refers to the extent to which a knowledge seekers believes that using KMS for knowledge seeking has a positive impact on one's performance.
- Perceived ease of use, that is defined as the usage of the system free of effort.

Prior TAM research indicates that perceived ease of use directly determine the perceived usefulness of a system. The presence of both these factors is necessary in order to get benefit from KMS. On the other hand, effort is considered as a barrier in knowledge seeking from KMS; as it cost the user in terms of time and effort spent, therefore KMS should be user-friendly (Wei et al., 2009).

Leadership and KMS: Effective leadership support can change the basic values, behavior and attitude of the employees so that they prefer team goals over the individuals. The role of leaders within the organization fosters the acceptance of new tools and technologies. Team members generally expect the leaders to meet a model of expected behavior and the ability to foster the employees to achieve the desired goals. This ability of the leaders if used in favor of using KMS help in promoting knowledge seeking through KMS (Wei and Kwok-Kee, 2009; Al-Ani and David, 2009).

Kuan and Elaine (2005) performed a postal survey in which the critical success factors of KM adoption in UK SMEs were determined. The main contribution of this study was the arrangement of critical success factors of KM adoption in their order of importance. It was found that management leadership support was perceived to be the most critical factor.

Leaders can influence the knowledge seeking behavior of employees: by providing them training of the KMS, developing the knowledge culture within the organization, developing trust, tolerance to mistakes and building long-term perspective of the organizational goals among employees, paying indirect rewards such as appreciation and recognition etc., (Stan and Kendal, 2006; Abilashprabhu *et al.*, 2011).

RESEARCH HYPOTHESIS

KMS is considered effective only when the employees of the organization use it on continuous bases. Continuance usage intention has been considered as a key usage outcome in the literature (Tiwana and Bush, 2005a; Hong *et al.*, 2006). Drawing upon the concept of continuous usage intention, we define continuous seeking intention as a user's intent to use KMS continuously for knowledge seeking purpose. We hypothesize the relationships between leadership support, perceived usefulness, perceived seeking effort and continuous seeking intention based on the existing literature on leadership support and KMS.

Following hypothesis will be considered in this research:

H1: Leadership support is positively related to the employee's continuous intentions of seeking knowledge through KMS.
H2: Leadership support is positively related to the perceived usefulness of KMS.
H3: Perceived usefulness of KMS is positively related to the continuance intention of seeking knowledge from KMS.
H4: Perceived seeking efforts of KMS are negatively related to perceived usefulness of KMS.

The research model shown in Fig. 1 summarizes the research hypothesis of our study.

Control variables: Two control variables namely, organizational rewards and knowledge seekers growth
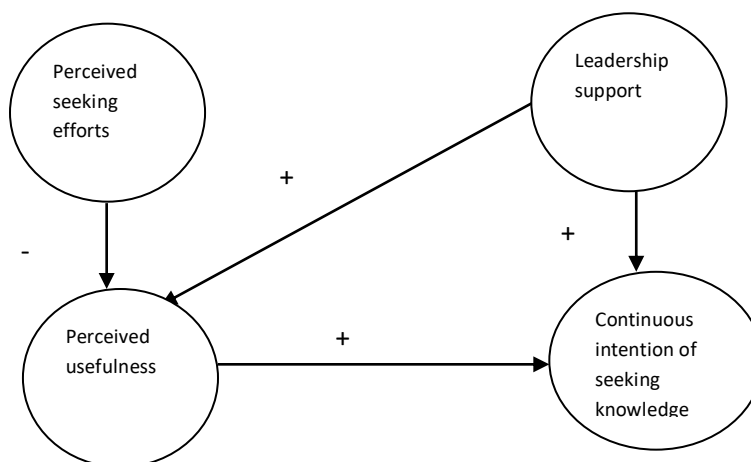
Fig. 1: Proposed research model

were also considered in our analysis, as these 2 variables have been proposed as an important motivational factor affecting KM in literature (kankanhalli *et al*., 2005a; Bock *et al*., 2005; Bhattacherjee, 2001; Bock *et al*., 2006). Thus we included these 2 variables as control variables in our study. Figure 2 shows us the affect of these variables along with the results of our research hypothesis.

METHODOLOGY

A Web-based survey methodology was used to collect data and test the hypothesis. The reason of choosing survey method was that: this method is best suitable when we are interested to obtain personal and social facts, behaviors and attitudes; it enhances the generalizability of the research findings (Kerlinger, 1973). The population consists of those people who have been working in a software development organization, posses the experience of using KMS and are using KMS in their organizations. The instrument for survey was questionnaire; tested questions from previous studies were selected in order to enhance the validity of the constructs. Where validated items were unavailable, new questions were developed based on literature study. In this way, a questionnaire was developed and 2 subject matter experts were requested to review the questionnaire. These experts evaluated these question items according to the criteria of understandability, length and redundancy. Few items were discarded because of the redundancy and some more items were added, so finally after evaluation 23 items were selected; four against the measures namely continuous intention of seeking knowledge, leadership support, perceived usefulness, perceived seeking efforts and organizational rewards and three against the control

Table 1: Sample characteristics

Age		Education	
Category	Frequency	Category	Frequency
≤ 19 years	2	≤ High school	1
20-29 years	51	≤ Graduation	32
30-39 years	19	≤ Masters	35
≥40 years	1	> Masters	5
Job tenure		KMS experience	
≤ 3 years	28	≤ 6 months	16
3-6 years	33	7-12 months	21
7-10 years	9	1-3 years	32
>10 years	3	≥3 years	4

variable knowledge seeker growth. Responses of each questionnaire item was given on a 5-point scaling ranging from 5 = "strongly agree" to 1 = "strongly disagree". The questionnaire was divided into 2 parts; part one was related to the personal information of the respondents and the second part consists of 23-items related to the trust measures.

We administered the survey on web and sent the link through email to invite the practitioners all around the china. The duration for the survey was from 15th March 2012 to 15th April 2012. A total of 82 responses were received from all over the china. After analysis 9 questionnaires were discarded as they were incomplete, hence total 73 questionnaires were considered for analysis. Summary of the respondent is shown in Table 1.

RESULTS

The research model was tested using Partial Least Square technique (PLS). PLS is considered as an appropriate statistical method for early stage research models. Figure 2 presents the results of hypothesis testing. Hypothesis 1, which states that leadership
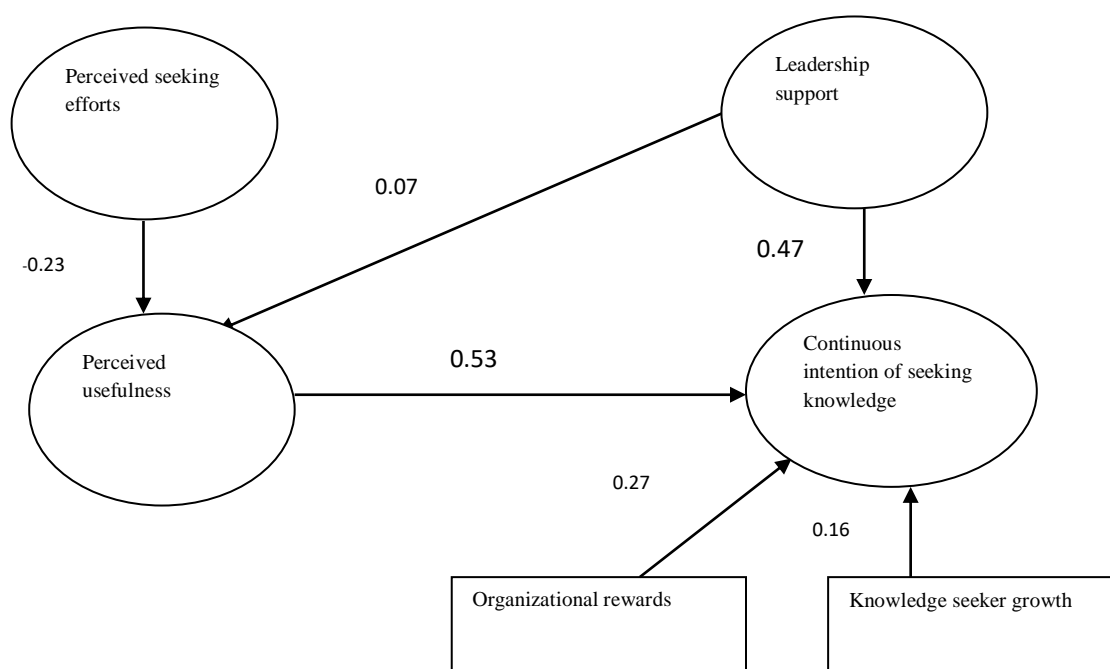
Fig. 2: Results of hypothesis testing

support positively relates to continuous seeking intention was supported, the testing results of hypothesis one were strongly significant, $\beta = 0.47$, t = 4.73, p<0.05. The results of hypothesis one indicate that leadership support strongly affect the intentions of employees to seek knowledge from the KMS. Hypothesis 2 which states that leadership support is positively related to the perceived usefulness of KMS was not supported, $\beta = 0.07$, t = 1.52, n.s. which shows that leadership support do not help in developing the belief of the employees that using KMS has a positive impact on one's performance.

On the other hand, Hypothesis 3, which states that the user belief that using KMS for knowledge seeking up one's performance is positively related to the continuance intention of seeking knowledge through KMS was supported, the testing results of hypothesis 3 were positive and strongly significant with $\beta = 0.53$, t = 4.12, p<0.001. Hypothesis 4, which states that perceived seeking efforts of KMS negatively relates to perceived usefulness, was equally supported, $\beta = -0.23$, t = 2.16, p<0.05, the negative value of β indicates the inverse relationship between seeking efforts and perceived usefulness of KMS. The result of hypothesis 4 indicates that user who perceived that using KMS for knowledge seeking will cost them in term of time and effort would not like to use it frequently.

Control variables were also tested in order to know the impact of these variables. Organizational rewards was positively related to continuous seeking intention,

$\beta = 0.27$, t = 3.17, p<0.05, indicating that organizational rewards motivate the employees in seeking knowledge through KMS. On the other hand seeker knowledge growth was also significantly related to continuous seeking intention of knowledge seekers, $\beta = 0.16$, t = 2.10, p<0.05, which shows that if the employees believe that Seeking knowledge from KMS promotes one's knowledge growth and development will affect one's intentions of seeking knowledge from KMS continuously.

DISCUSSION

For this study we examined the role of leadership support in user's knowledge seeking behavior through KMS. The empirical results revealed several important findings. First, we found that leadership support affect the intentions of employees to seek knowledge through KMS. Our research shows that leadership support is important for the success of KMS; therefore, organizational leaders should take such measures that promote employee's interest in KMS. This leadership support can be developed in several ways. First, leaders should give a high priority to KMS use. Second, leaders should encourage knowledge sharing and thirdly leaders should provide training and time to employees to perform knowledge related activities. Next, we confirmed with existing research that perceived seeking effort is negatively related to the perceived usefulness

of KMS. This finding is helpful for the KMS developer, they should try to develop user friendly KMS.

However, we did not find a direct significant relationship between leadership support and perceived usefulness of KMS. Which was surprising as literature on knowledge seeking showed that leadership support helps in developing user's belief that using KMS will positively impact one's performance (Wei and Kwok-Kee, 2009). In our case, leadership support relates significantly to continuous intention of seeking knowledge, and perceived usefulness is positively related to continuous intention of seeking knowledge as obvious from Figure 2 and hypothesis 3. This casual chain signifies that although leadership support is not directly related to the perceived usefulness of KMS but it indirectly impacts the perceived usefulness of KMS users.

LIMITATION AND FUTURE WORK

Several limitations of the study should be noted, first, all data was collected from china which represents a relatively homogeneous sample. Replicating this research in multiple countries, particularly in global software development organizations, could strengthen the validity of our research findings. Second, the impact of only leadership support is studied in this study; in the future there is a need to study the other potentially important factors that impact the user's behavior of seeking knowledge through KMS. Finally there is a need to investigate on how knowledge seeking behavior can be affected by various social and organizational dynamics by increasing the population size and diversity, and what further measures should be taken by the organization's in order to get maximum benefits from KMS.

CONCLUSION

This study examines the role of leadership support in user's knowledge seeking behavior using KMS. In order to collect data, a web-based survey was conducted in all over the china which involves the participants who were using KMS in their organizations. The empirical results indicate that leadership support strongly influence the user's behavior of seeking knowledge through KMS and thus promote knowledge sharing throughout the organization. The results of the study suggest that leaders play an important role in the success of KMS, leader's support and behavior motivate the employees to share knowledge. The findings of this study, we hope, will help and facilitate the organizations in making their KMS useful and affective.

Appendix-A: Questionnaire items

Perceived usefulness:

- I find KMS to be helpful in my work.
- My performance and productivity increases while using KMS.
- I accomplish my tasks quickly by using KMS.
- Using KMS is natural to me.

Continuous seeking intention:

- I am planning to continue using KMS for knowledge seeking in the future.
- My intentions are to continue KMS usage to seek knowledge in the next month.
- If I could, I would like to continue using KMS to seek knowledge.
- I enjoy knowledge seeking through KMS.

Perceived seeking efforts:

- It is time consuming to search/retrieve knowledge documents from KMS.
- Locating knowledge trough KMS requires a lot of efforts from me.
- Using KMS make my work more complicated.
- KMS is not user-friendly.

Leadership support:

- Leadership support is important in leveraging people's knowledge and experience.
- Leaders acts as role model to exhibit the desired behavior.
- Leaders encourage knowledge creation, sharing and use.
- Leaders are aware of KM as important to business success.

Organizational rewards:

- It is important to get additional points for promotion in return for my knowledge contribution/seeking in the KMS.
- When I share my knowledge through KMS, my supervisors praise me.
- It is important to get more job security when I use KMS to contribute/seek knowledge.
- I am visibly rewarded when I share and use knowledge through KMS.

Knowledge seekers growth:

- Seeking knowledge from KMS promotes my knowledge growth and development.
- Seeking knowledge from KMS enhance my knowledge.
- Seeking knowledge from KMS strengthen my competence.

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