

KMS knowledge sharing research based on multiple perspectives

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Abstract: Based on the perspective of socio-technical systems, research from four levels: personal, social, organizational and technical KMS theoretical model of knowledge sharing and try to find the impact key factors affecting knowledge sharing. Use multiple theoretical perspectives such as social capital theory and cognitive theory to establish a basis for KMS knowledge sharing factor model, using PLS The structural equation pair comes from 97 companies Empirical research on 183 valid samples shows that although variables at all levels have an impact on the dependent variable has a significant role, but social capital has a significant impact on KMS The effect of knowledge sharing is the most significant, followed by the personal, technical and organizational levels respectively. Therefore, the enterprise The industry should focus on cultivating organizational social capital based on comprehensive management measures and utilize Web 2.0 information technology etc. KMS Support employee social capital The development of this book promotes knowledge sharing, and finally summarizes two misunderstandings in knowledge sharing management.

Keywords: Knowledge management system; KNOWLEDGE Sharing; Multiple perspectives; PLS structural equation

1 LITERATURE REVIEW

According to the enterprise theory based on the knowledge view, knowledge is the most important strategic resource of an enterprise, and the success of an enterprise depends on its knowledge management capabilities. A typical case is that General Motors insisted on the efficiency advantages brought by centralized control and effective execution, but gradually lost the market. In 2007 Annual loss 387 One hundred million U.S. dollars; On the contrary, General Electric attaches great importance to knowledge management, Since 1980, it has insisted on continuous innovation in various fields from wind energy to medical equipment. In 2007, its profit reached 225 billion U.S. dollars [1]. Knowledge management is a very broad research field that includes knowledge identification, creation, organization, storage, sharing, use and maintenance. How to best share knowledge is a very critical and challenging issue in knowledge management. Only through Through knowledge sharing, individual knowledge can be transformed into organizational knowledge and Organizations create value.

To support organizations in knowledge management using modern information technology Especially knowledge sharing, many companies have implemented knowledge management management system (Knowledge Management System, KMS), but In practice, the implementation results of these enterprises are not ideal. To reveal the impact KMS There are many factors affecting knowledge sharing behavior and minimizing knowledge storage. Scholars have conducted research based on different theories and perspectives. Research on knowledge sharing behavior in KMS, including social exchange theory, Social capital theory, trust theory and social cognitive theory, such as Zheng Wan Song et al. [2] adopted social capital theory and planned behavior theory. Hu Ping et al. [3] used motivation theory and planned behavior theory to explain the influencing factors of employee knowledge sharing behavior within the organization. These studies laid the foundation for a deep understanding of knowledge sharing behavior. foundation. However, existing research often only studies from one level, and research based on social capital theory also mostly studies from the relationship dimension [4], these studies show the role of variables at a certain level in knowledge sharing, but it is difficult to focus on the key points for management practice. On the basis of sufficient research on knowledge sharing from all levels, this study comprehensively applies relevant theories and adopts the perspective that organizations are essentially a socio-technical system. It selects typical variables for research from the personal, social, organizational and technical levels., The purpose is to avoid blind men and elephants, and to discover key influencing factors based on a comprehensive understanding of the factors that determine knowledge sharing, thereby providing guidance for management practice. In addition, knowledge sharing in organizations includes formal sharing in organizational meetings, knowledge sharing in communities of practice, and knowledge sharing based on knowledge management systems. The influencing factors and effects of knowledge sharing in different forms will be different.

2 RESEARCH HYPOTHESIS

In order to limit the size of the model, representative variables from each aspect were selected Conduct quantitative research. As for the dependent variable, this study uses Ma and Agar - wal [5] in a study on the role of information technology characteristics on knowledge sharing Knowledge sharing adopted as the dependent variable is a self-reported construct representing the quantity and quality of knowledge shared through knowledge management systems.

2.1 Personal-Level Factors: Self-Efficacy and Personal Reputation

At the individual level, knowledge sharing behavior is only possible if individuals first have self-efficacy, and establishing reputation is an important purpose for individuals to share knowledge. Self-efficacy in the context of this study refers to whether one can apply various KMS Technology shares subjective judgments of knowledge that is useful to other people or organizations. Self-efficacy is applied in knowledge management research to examine the impact of self-efficacy on knowledge sharing. Like Bock and Kim [6] found that self-efficacy is an important factor in knowledge sharing. When people share knowledge, they KMS feedback in also gain confidence in sharing relevant knowledge, which This confidence further increases self-efficacy, which is conducive to continued Share knowledge. Therefore, the following hypothesis is put forward:

H1: Self-efficacy and based on KMS positive correlation with knowledge sharing.

Social exchange theory states that an individual's social behavior is based on the expectation of certain social benefits, such as recognition, status, and respect. Through knowledge sharing, knowledge contributors can show others that they have professional knowledge, improve their self-image, and can gradually be recognized as domain experts, which shows that individuals who actively engage in knowledge sharing can improve their reputation. Reputation is an important asset on which an individual can achieve and maintain status. Wasko and Faraj [7] Research shows that reputation is a significant factor influencing individuals' knowledge sharing in online communities of practice; Ma et al. [5] showed that in-depth personal information including reputation (Deep Profiling) Ability to influence members' knowledge contribution behavior. in addition 徐 and Lin [8] found that credibility motivation affects knowledge sharing in studying the influencing factors of blog acceptance, and knowledge sharing is positively related to blog acceptance. Therefore, the following hypothesis is put forward:

H2: Personal reputation is what promotes personal progress in the knowledge management system important factor in knowledge sharing.

2.2 SOCIAL Level - Personal Social Capital

Organizations are part of society, and the behavior of internal employees is also affected by the social environment in the organization. Social capital theory specifically analyzes the influencing factors of the social environment. Nahapiet and Ghoshal [9] defines social capital as “ The sum of existing and potential resources embedded in the network of relationships owned by an individual or social unit. ” Social capital includes structural dimensions, Relational dimension and cognitive dimension. exist Nahapiet and Ghoshal Based on research on social capital, Tsai and Ghoshal [10] empirically studied the mechanism by which social capital within organizations promotes resource exchange and innovation. This study starts from the perspective of social capital Study it in 3 dimensions KMS the promotion of knowledge sharing.

2.2.1 Structural capital

the links that connect an individual to other members of a social network bring, yes society meeting Capital original Heavy want genus sex. Nahapiet and Ghoshal [9] believe that “ The basic proposition of social capital theory is that network connections provide convenience in utilizing resources.” Knowledge is a resource that is difficult to access, and social connections among users of knowledge management systems provide an efficient way to access multiple resources. Frank and Ronel [11] found through social network analysis that social connections can better predict the flow of information and knowledge in virtual project teams than formal project structure relationships. Therefore, it can be speculated that social connection will positively affect the knowledge sharing behavior of users in knowledge management systems. Therefore, the following hypothesis is put forward:

H3: social connections and based on KMS positive correlation with knowledge sharing.

2.2.2 Relationship capital

Relational capital is the mutual exchange between users of knowledge management systems. Trust, norms of reciprocity, and a sense of identity built through connection. personal level Secondary relational capital is beneficial to both personal actions and personal The group to which a person belongs. Trust in knowledge management systems mainly refers to Trust subjects' values and knowledge contained in knowledge management systems Recognition of the character of users in the management system. If members in the knowledge management system lack trust in other members, such as thinking that other members may not be honest enough or that members do not agree with each other's values, then knowledge sharing will be difficult.; On the contrary, if members perceive the integrity of other members and share their values, it is easy for members to interact positively and knowledge sharing to occur naturally. Nahapiet and Ghoshal [9] believes that when there is trust between participants, they are more willing to cooperate and interact with each other. Nonaka [12] pointed out that interpersonal trust is very important for creating an atmosphere of knowledge sharing in organizations and teams. Therefore, trust can promote resource exchange relationships between people and also promote knowledge sharing among users of knowledge management systems. Therefore, the following hypothesis is put forward:

H4: trust and based on KMS positive correlation with knowledge sharing.

In this study, reciprocity perception is defined as the extent to which knowledge management system users share knowledge with each other and are considered fair by the sharing participants. Reciprocity is taking action based on the reciprocal behavior of the other party and ceasing to act when these reciprocal behaviors are not expected to occur. Social exchange theory shows that participants in virtual communities expect reciprocity from each other and are therefore willing to spend the time and energy required to share knowledge. Existing research has shown that high reciprocity perceptions in online communities of practice can significantly promote the development of the community

[7]. Faraj [4] studied the interaction patterns in online communities and found that direct and indirect reciprocity are the main features of communication in online communities. Based on these related studies, it can be speculated that the perception of reciprocity can promote KMS knowledge sharing in. Therefore, the following hypothesis is put forward:

H5: Reciprocity perception and based on KMS positive correlation with knowledge sharing.

Identity refers to the feeling of being a member of a social group towards the group. Self-identity with significant common characteristics [13]. In this study, identity is the individual's sense of belonging to the user group of the knowledge management system and positive emotions. This sense of belonging and positive emotions can increase members' feelings towards organizational loyalty and citizenship behavior and may explain individual and knowledge management Maintain long-term relationships with users in management systems will. Nahapiet and Ghoshal [9] believes that identity is the process of integrating an individual into others and groups. Process, in which members of the group refer to the values and behaviors of other members examination, and pointed out that identity can be a factor that affects the combination of knowledge and communication. Positive factors for exchange; On the contrary, members in the organization are different or even contradictory identity will become a barrier to information sharing, learning and knowledge creation hinder. Knowledge sharing can only be voluntary in nature, and knowledge management A management system user group is an informal organization in which members Identity is key to the existence of such organizations. Knowledge embedded in individual heads In their minds, people generally tend to conserve knowledge and only share it Only when the recipient recognizes the values and behaviors of the knowledge recipient is he or she more likely to be willing to share the knowledge sharing their own knowledge, a sense of identity can promote KMS knowledge in shared. Therefore the following hypothesis is put forward:

H6: sense of identity and KMS Positive correlation with knowledge sharing in.

2.2.3 Cognitive capital

Common language not only refers to daily language, but also includes abbreviations, code names and underlying assumptions, as well as corporate stories that facilitate individuals to better understand the current work environment and personal work roles [14], this study also includes the knowledge classification system in the knowledge management system, Custom labels, technical standards and terminology adopted by the organization, etc. First, language is what people A tool for discussing issues and useful in establishing and maintaining social relationships. has important functions. The more people share a common language, the more helpful It is difficult to find the person with the required information, and the greater the language difference, the more difficult it is for people to the greater the cognitive distance between them, thereby limiting the ability to find the required information opportunities for interest. Secondly, common language affects perception. Symbol system has It helps people classify perceived environmental information, thereby providing a reference frame for observing and interpreting the surrounding environment. In this way, language also has the function of filtering information. Lesser and Storck [14] Study finds common language helps communities of practice reduce new hires through knowledge sharing learning curve, faster response to customer needs, Prevent duplication of work and Re-invention. The above analysis and related research show that a common language is important in knowing Knowledge sharing in knowledge management systems plays an important role, so it is proposed Assume the following:

H7: common language and KMS Positive correlation with knowledge sharing in.

2.3 Technical Level - IT Support

KMS Is an important technical infrastructure that supports organizations in knowledge management, KMS It is necessary to support both explicit knowledge sharing and tacit knowledge sharing. Sharing of tacit knowledge requires interaction between participants, so not only knowledge bases and search engines are needed, but also virtual community systems and expert maps are needed. (Yellow Pages), SNS, video conferencing, etc. Web 2.0 functions to help store and communicate knowledge. The extent to which these functions are implemented is called IT Support. above Various KMSs can directly facilitate knowledge sharing. For example, knowledge base systems can promote explicit knowledge sharing, and can also facilitate informal interconnections across teams or departments and within them to promote tacit knowledge sharing.; In addition these KMS Various web 2.0 Function can also promote organizational social Capital Book of hair Exhibition, such as Korea country of Ayoung and Kyung- Shik [15] research shows that communication in a virtual environment can significantly affect the strength of social connections within a team and the scope of social networks outside the team. Therefore, the following hypothesis is put forward:

H8: IT Support can promote the development of organizational social capital.

H9: IT support and KMS users' knowledge sharing behavior is positively related. H8,H9 and H3 ~ H7 Show that social capital is IT Support

There is a partial mediating effect between knowledge sharing and knowledge sharing.

2.4 Organizational Level - Organizational Rewards

From the perspective of extrinsic motivation, personal behavior is determined by the perception of actions Value-driven, the basic purpose of externally motivated behavior is to obtain the organization's Rewards or reciprocal benefits. Organizational rewards can be used to motivate individuals to perform Required actions, which can range from monetary increases such as salary and bonuses Rewards and non-monetary rewards such as job promotion and job stability. Some The organization adopts a reward system in knowledge management to encourage employees to share

knowledge. knowledge. For example, Bookman Labs passes a resort's annual The meeting commended its 100 Knowledge Contributors, IBM of Lotus customer Support staff's overall performance evaluation 25% Used to evaluate its knowledge sharing activities degree of movement [16]. Although some research shows that external motivation can affect internal motivation, incentives produce a crowding-out effect, but these studies have not been able to distinguish knowledge sharing different scenarios to enjoy, through KMS knowledge sharing, adoption within the organization formal event (such as a meeting) knowledge sharing, informal knowledge sharing among employees, and knowledge sharing within communities of practice for external motivation will produce different effects [16]. can be expected if employees believe they can by in KMS Provide knowledge in the system and be rewarded by the organization, he We will develop more positive attitudes and intentions towards knowledge sharing and And promote knowledge sharing behavior. Therefore, the following hypothesis is put forward:

H10: Organizational rewards and adoption KMS positive correlation with knowledge sharing.

3 RESEARCH DESIGN

3.1 Measurement

In order to ensure the validity of the constructs, the constructs in this study were There are those that have been verified in research or have been appropriately revised to improve content validity. The revised scale, but cultural differences between China and foreign countries may affect the scale reliability, so to ensure rigor, reliability and validity were still test. All measurements are made using "Strongly disagree" (1) arrive "Totally agree" (7) Richter 7 level scale. Use reverse translation Translation method to ensure that the scale after translation into Chinese is the same as the original English scale consistency.

need to be specifically pointed out out Yes, IT Support reference Lee and Choi [17] developed the scale, but Lee and Choi This construct is regarded as a reflective construct in its research, and according to Petter etc [18] The four principles proposed for determining formative constructs, because IT The support measurement items measure IT The extent to which knowledge sharing is supported by different functions of the system is therefore treated as a formative construct in our study. Based on an extensive literature survey, exploratory interviews were conducted with industry experts and researchers to clarify IT Aspects of knowledge sharing support in knowledge management. Lee and Choi The original scale included a measure of knowledge management systems supporting knowledge storage, search, communication Degree. Combining the results of the survey, we added Web 2.0 The development of social network services for knowledge sharing SNS, knowledge map and other measurement projects.

3.2 Questionnaire Distribution and Recovery

The questionnaire was first edited through the online survey website and All survey items must be completed before submission, so there will be no missing value issues in the returned test papers. Then, we assisted in the investigation through a knowledge management real-name community. The members of this community are the main persons in charge of implementing knowledge management in various enterprises. A total of 97 people Knowledge Management Manager, These responsible persons will report to the company's knowledge management A user of the management system forwarded an email requesting to participate in the survey. The email explained the purpose of the survey and the hyperlink to the online questionnaire. It also stated that participants who completed the questionnaire would be given a small gift to express their gratitude, and optional Choose to receive research reports for free (More than 90% choose to accept) to improve Recovery rate. to all enterprises 425 users sent emails, Finally returned the questionnaire 217 share, Recovery rate 51%. high consistency If all the same questions are selected in the questionnaire, the questionnaire will be invalid. After screening, the valid questionnaires were 183 copies, the validity of the questionnaire is 84%.

4 MODEL TESTING

4.1 Measurement Model Test

Data analysis was conducted in two stages, namely first examining the measurement model and then examining the structural model. For reflective constructs, test their Unidimensionality, Internal consistency, convergent validity, and discriminant validity; for For formative constructs, the weight of its indicators and the variance inflation factor of the indicators are tested. Since covariance-based structural equations are not suitable for processing IT support is a formative construct. This study adopts the PLS algorithm of Smart PLS Confirmatory factor analysis and structural model testing were performed.

In order to test the unidimensionality of each construct, we first used SPSS 21 Exploratory factor analysis was conducted for evaluation, and form was not included in the analysis. habitual construct IT Support survey data, other 9 constructs The survey data were used as original data, and factors were extracted through the principal component method and use VARIMAX Rotate, select eigenvalues greater than 1 in the results The components of are used as final factors to extract a total of 9 factors, all refer to Marks have higher loadings on the factor to which they belong. (>0.74), while in other Loadings on factors are low (<0.2), indicating that each indicator is reasonable unidimensionality.

and then use Smart PLS conducted confirmatory factor analysis to test the internal consistency of the scale. As shown in the Table 1, the bootstrap method is used to test the significance of index loadings. (Resampling times = 500), the results show that all loadings are significant ($p < 0.01$). The minimum value of the combined reliability of all reflective indicators in the research model is 0.871, Cronbach coefficient of The minimum value is 0.780, both exceed 0.7, representing the scale of all constructs Has internal consistency. All index loads exceeded 0.707, Place Constructed average extracted variance (AVE) All exceeded 0.5, Tool There is convergent validity.

Table 1 Confirmatory factor analysis results

construct	index	load	Cronbach coefficient	average extraction variance AVE	combination letter Spend CR
KSSE	KSSE 1	0.838	0.882	0.732	0.916
	KSSE 2	0.830			
	KSSE 3	0.852			
	KSSE 4	0.901			
	PR1	0.888			
PR	PR2	0.817	0.866	0.788	0.918
	PR3	0.931			
	TIE1	0.901			
TIE	TIE2	0.917	0.912	0.792	0.938
	TIE3	0.843			
	TRUST1	0.890			
	TRUST2	0.908			
TRUST	TRUST3	0.867	0.780	0.693	0.871
	TRUST4	0.894			
	SAY 1	0.780			
	SAY 2	0.841			
SAY	SAY 3	0.874	0.870	0.794	0.920
	IDEN1	0.898			
	THE DAY	IDEN2			
IDEN3	0.878				
ICOLA1	0.841				
ICOLA	COLA2	0.883	0.872	0.721	0.912
	COLA3	0.908			
	ORRE	IORRE1			
ORRE	ORRE2	0.867			
	ORRE3	0.843			
	ORRE4	0.792			
IKMSKS	IKMSKS1	0.838	0.857	0.778	0.913
	KMSKS2	0.885			
	KMSKS3	0.921			

Note: All loads are in $p < 0.01$ level significant

Read AVE The square root of, whose value exceeds that of this construct and other constructs The correlation coefficient between the constructs indicates that the constructs have discriminant validity. same Time is on the table 1 In the confirmatory factor analysis results in, all measurement items The actual loadings on the constructs tested exceeded 0.78, with in The loadings on other constructs differ by at least 0.1, also shows that there are differences between constructs in discriminant validity.

Table 2 The diagonal position of the construct correlation coefficient matrix is the construct and discriminant validity.

Table 2 Construct correlation coefficient and discriminant validity

construct	COLA	IDEN	ITSUPP	KMSKS	KSSE	ORRE	PR	RECI	TIE	TRUST
COLA	0.878									
IDEN	0.170	0.891								
ITSUPP	-0.058	-0.015	N/A							
KMSKS	0.151	0.173	0.309	0.882						
KSSE	0.037	-0.010	0.045	0.188	0.856					
ORRE	-0.023	0.212	0.027	0.200	0.052	0.849				
PR	0.042	0.020	0.031	0.188	0.096	0.079	0.880			
RECI	0.189	0.030	0.060	0.157	0.001	0.049	-0.010	0.832		
TIE	0.007	0.013	0.053	0.509	-0.018	0.179	0.018	0.102	0.888	
TRUST	0.046	-0.135	0.114	0.262	0.034	-0.047	-0.080	0.045	0.110	0.890

Note: Bold numbers on the diagonal indicate AVE The square root of, other numbers represent the correlation coefficients between constructs, all correlation coefficients are in $p < 0.05$ level significant

To test formative constructs IT The effectiveness of support, according to Petter et al [18] Recommended methods for testing formative constructs, Checked first IT Support measures the significance of an item's weight. As shown in the table 3 shown, except for measurement items ITSUPP 5 Except for, the weights of other measurement items are significant ($p < 0.01$). But according to Bolle n and Lennox [19] recommendations, the project was retained to maintain the concept content validity. To test for multicollinearity, the calculated Variance inflation factor of IT support VIF for 2.89, less than Petter The formative constructs suggested by et al. VIF threshold 3.3, so its measurement item There is no multicollinearity problem among the items.

Table 3 formative construct IT Measurement item weight of support

Measurement items	Weights	standard deviation	t value
ITSUPP1	0.526	0.173	3.039 *
ITSUPP2	0.469	0.175	2.685 *
ITSUPP3	0.481	0.162	2.965 *
ITSUPP4	0.663	0.144	4.591 *
ITSUPP5	0.234	0.193	1.208

Note: * express $P < 0.01$

4.2 Structural Model Testing

further adoption PLS Structural equation modeling tests research hypotheses, The significance test adopts the bootstrap method and repeatedly draws samples. 1 000 times, the test results show IT Support for various variables of social capital no significant impact ($p > 0.25$), that is, the assumption H8 Didn't get the number It is supported that all other path coefficients are positive and significantly adherence level $p < 0.05$, so the result supports the addition of H8 anything other than There are assumptions.

To test for common method bias, we first conducted Harman one Factor test, the results show that the proportion of variance explained by the fixed factors is 26%, indicating that common method bias did not significantly affect the survey results. pollute. Then, follow Liang et al. [20] tested the common method bias. steps in PLS A common method factor was added to the model and Convert all measurement indicators into factors with only a single indicator, and then Then calculate the variance explained by each indicator by its corresponding construct and the total The variance explained by the same method, the results show that each indicator is represented by its corresponding The average variance explained by a construct is 0.72, and solved by the common method The average variance explained is 0.021, the ratio between the two is 34 : 1, and The loadings for most of the common method factors were not significant. Therefore it can be recognized Common method bias can be ignored in this study. The proportion of variance explained by the dependent variable is 52.8%, It can be considered This research model fit the data well. further reference Bulgur - cu [21] used the analytic hierarchy process method, in the explained variance ratio In this example, the proportion of variance explained by the social dimension is 36.7 %, the proportion of variance explained at the individual level is 6.9%,, the variance explained by the technical level The ratio is 6.3%, the proportion of variance explained at the organizational level is 2.9%, The relative ability of social, personal, technical, and organizational levels to explain the dependent variable The proportions are respectively 70%, 13%, 11.9 and 5.5%.

and Cohen 's d Effect size metrics based on the mean are different, This paper adopts the method based on variance explanation Cohen 's f 2 Indicators test variable pairs at each level KMS The effect size of knowledge sharing in 4 shown. It can be seen that social capital has the greatest effect on knowledge sharing. Followed by the personal and technical levels, the organizational reward effect is the smallest. As shown in Table 4.

Table 4 Effects at all levels

construct	R 2	effect (f 2)
social level (include 5 variables)	0.189	0.400
personal level (include 2 variables)	0.464	0.136
technical level (IT Support)	0.468	0.127
organizational level (organizational compensation)	0.499	0.061

5 CONCLUSION AND MANAGEMENT SUGGESTIONS

This study uses multiple perspectives to establish a model from four levels: personal, technical, organizational and social. KMS Knowledge sharing model in. Empirical research results show that knowledge management requires comprehensive management measures from individuals, technology, organizations and society, such as examining self - efficacy in employee recruitment, commending advanced individuals in knowledge sharing and other measures to improve personal reputation, Take various measures to increase organizational social capital and provide appropriate organizational rewards. However, the proportion of variance explained by social capital is 70%, the effect size is 0.400, The variance ratio explained by organizational rewards is only 5.5%, the effect value is only 0.061, which shows that

knowledge sharing can only be a social behavior of employees in nature. Organizations can cultivate social capital to promote knowledge sharing, but the effect of motivating employees to share knowledge through organizational rewards is minimal. Therefore, companies should first focus on improving organizational social capital and thereby improve KMS knowledge sharing in.

Research results unexpectedly revealed IT Support for social capital The holding effect is not significant. Upon further investigation, it was found that the possible cause is based on Web 2.0 of KMS The system is applied in the survey sample enterprises The time is still short, and the formation of social capital mainly comes from traditional form of communication. So suppose H8 cannot be rejected based on this research, On the contrary, because this hypothesis has a solid theoretical foundation and foreign empirical evidence, support, instructions IT Support has a potentially important role in knowledge sharing use. At the same time, we compared the path coefficients of each variable and found that, In addition to the largest social connection path coefficient, the second is IT Support path coefficient, which shows IT The direct impact of support on knowledge sharing Significant sound.

In view of social capital and IT Support for promoting knowledge sharing important role, in addition to directly promoting social capital through various management methods In addition, by improving IT Support the promotion of social capital 3 dimensions of development It is also an effective measure to improve knowledge sharing. For this purpose, social capital 3 dimension pairs KMS for optimized design: (1) in KMS In terms of system support for structural capital development, the system can allow users to check Find users with specific expertise, provide topic-focused or user-focused centric online communities, where topic-centric communities allow allows users who are unfamiliar with each other to exchange ideas, and a user-centered social Districts can help maintain and enhance users that already exist in traditional the relationship between. KMS It can also provide automatic recommendation function, that is, root Capture users' expertise based on their knowledge sharing records and communication records, and Recommended by users with this expertise to users who need to solve such problems, This helps users establish new connections and increase structural capital. (2) in KMS System supports cognitive capital development aspects, design KMS Tie When running a system, you can consider maximizing the communication bandwidth between users, such as supporting Supports video and voice communications, presentation tools and domain-specific support support materials, record communication history between users, and use custom Definition tags and system recommended tags technology identify user communication history and The knowledge stored, or the organization involved in using ontology technical specifications domain knowledge. (3) exist KMS System supports relationship capital development method In this aspect, we can introduce into the system the rewards rewarded by those who have the first demand for knowledge. sub-systems and knowledge provided by all users of the evaluation system, these Points and reviews help improve trust and reciprocity among users, and the system The system can also provide active user rankings based on these data, combined with Management measures such as recognition and rewards enhance user identity. also, When recommending experts to users as mentioned above, it can also be based on the relationship between users. The network recommends experts familiar to users to improve knowledge providers and Trust and reciprocity among demanders.

In addition, combined with the empirical results, it was found that the companies participating in the survey were actually Shi KMS Two misunderstandings in: One is to only focus on using information Technology builds knowledge base and ignores utilization Web 2.0 technology versus social network network support, IT Low support, which is not conducive to knowledge sharing; Another misunderstanding is the misunderstanding of organizational rewards, that is, only focusing on organizational rewards function, rigidly stipulate the amount of knowledge sharing by employees, and transfer knowledge The combination of sharing and performance evaluation results in low quality knowledge sharing. It may even cause employees to feel resistant and prone to a crowding-out effect.

COMPETING INTERESTS

The authors have no relevant financial or non-financial interests to disclose.

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