

## The Impact of Collaborative Knowledge Environment on Intention to Share Knowledge

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### Abstract

*The study aimed to examine the relationship between collaborative knowledge environment and intention to share knowledge based on the theory of reasoned action (TRA). To achieve the research objectives, this study adopted the descriptive design. A questionnaire and a convenience sampling were used to collect the data from sample of 395 employees of the Sudanese insurance firms. This study employed structural equation modeling using SPSS. The analysis of the data showed that only two components of collaborative knowledge environment (CKE) have a significant positive influence on intention to share knowledge (i.e., employee attitude and work group support) whereas the other remaining components of CKE, namely organizational culture and immediate supervisor support have a negative influence on KSI. These findings were discussed in the light of previous literature. As a conclusion, the study contributes to the knowledge sharing literature by illuminating the interrelations of context, collaborative knowledge environment, attitude, and intention, offering useful implications to theory and practice.*

Keywords: *collaborative knowledge environment, intention*

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### INTRODUCTION

Knowledge management plays an important role in organizations. Most managers are eager to establish knowledge management systems in order to gain its valuable results in their organizations. One of the most important aspects of knowledge management is knowledge sharing. Motivating individuals to share their knowledge is main priorities for organizations, hence, motivation should be created among employees to share their knowledge without fear of losing their position. Lack of knowledge sharing intention has several negative effects on the organization survival (Lin, 2007; Mohammed et al., 2018).

Knowledge that is most powerful tool to create value to the organization and effective knowledge sharing between employees reduces cost of creating knowledge and ensures sharing the best work processes within the organization (Karim et al., 2017; Liao et al., 2013). Since knowledge sharing is a personal phenomenon and employees play a key role on its success, yet most organizations neglect to determine affecting individual factors. There are many employees who don not tend sharing their knowledge due to fear of losing their job and knowledge (Ahmed et al., 2020). Chow et al. (2008) suggest employee's attitude is the most factors to share knowledge. If organizations can better understand the individual factors facilitating knowledge sharing behavior, they can easily promote knowledge sharing.

In this regard, organizational commitment, job satisfaction, and job involvement are among important attitudes. Indeed, employees may have a certain level of satisfaction to their job and commitment to the organizations as well as involvement in the job. This level that arise from effective organizational practices that could drive their behavior to sharing knowledge. Therefore, it is very useful to organizations to have a collaboration knowledge environment (CKE) climate that motivates the individuals for sharing knowledge. Many researchers have emphasized on the perceptions of CKE on knowledge sharing intention among employees within the organization (e.g., Bok & Kim, 2002).

## **PROBLEM STATEMENT**

A goal of KS is transforming tacit knowledge into explicit knowledge (Hoof et al., 2012). Knowledge includes skills, insights, intuition, expertise, routine knowledge, and practical knowledge that employees retain and have not yet converted to explicit or documented knowledge (Razmerital et al., 2016; Yoon & Rolland, 2012). Further, tacit KS emerges when employees share lived experiences, best practices, and knowledge with other organizational members, which sometimes results in creative and innovative ideas (Chuang, Chen, & Tsai, 2015). Employees may be reluctant to share knowledge because of organizational culture norms, lack of trust, poor management support, absence of reciprocity, or fear of losing power (Sanghani, 2009). KS may be valuable to employees in identifying efficient work procedures, finding information quickly, and reducing time investments for employees to learn new things (Heisig, 2009). Knowledge management (KM) concept is still understood as information management and is associated with technological solutions, such as intranets and databases (Nonaka & Peltokorpi, 2009). Many organizations perceived knowledge management (KM) initiatives at the information technology level. Consequently, these organizations would invest heavily in KM tools and place them on their Intranet server (Ouakouak et al., 2018).

Several knowledge gaps have been identified to be addressed in the current study. First, most studies in this field focused on factors that affecting knowledge sharing such as subjective norm and motivations rewords. Few research studies included quantifiable data about the intention of employees to share knowledge in relation to managerial support or organizational culture for KS (Hinds & Pfeffer, 2003; Li, Y., Liu & Lin, 2016). For this reason, the current study seeks to examine the relationship between collaborative knowledge environment and knowledge sharing intention. Second, the main studies in knowledge sharing field have been carried out in eastern and South-East Asian countries. Clearly, only few studies have been conducted in Arab organization. Also, few studies have been conducted in knowledge sharing in service sector. For this reason, there is a need to conduct such a study in the underdeveloped countries, more precisely in Sudan to provide a variety of skills and expertise, can help providing appropriate conditions for organizational knowledge sharing (Elham, 2018).

## LITERITURE REVIEW

### *Concept of Collaborative Knowledge Environment*

Many researchers have emphasized on the perceptions of work climate on knowledge sharing intention amongst employees within the organization (Bok & Kim, 2002). The impact of collaborative work climate is rarely investigated on knowledge sharing intention. Practitioners claim that underutilized knowledge is the largest hidden cost in organizations. The organization's ability to transfer knowledge from one unit to another has been found to contribute to the organizational performance of firms (Epple, Argote, & Murphy, 1996).

What is it that makes some knowledge transfer and creation processes more effective in creating value than others? Clearly, process design, office design, information sharing software, and others help effectiveness and anecdotes about 'best practice' abound in knowledge management circles. But careful design and information technology do not help if the willingness to share with each other is not there. The culture is also where the surveyed managers believe the best opportunities will be found in the five years to come. Scholars tend to define culture as the deeper level of basic values, beliefs and assumptions that are shared by an organization's members. In fact, organizational climate is an interpretation of organizational messages by the organization members. Argote and Ingram (2002) was the first to propose the concept of Knowledge Collaboration (KC). He considered it as a strategic organizational approach that dynamically builds upon internal and external systems, business processes, technology and relationships communities, customers, partners and suppliers, to maximize business performance.

### *Components of Collaborative Knowledge environment*

#### *Organizational Culture*

Knowledge-sharing motivations are also influenced by culture because motivational issues do not universally hold across cultures (Renzi, 2008). Organizational employees make up overarching and narrowed cultures that influence employees' motivation, productivity, perspectives, and problem-solving techniques (Sharma, Singh, & Neha, 2012). Organizational culture has been found to link to project management and KS success as cultures that adopted KS characteristics had increased employees' KS intentions (Chow, 2012). Further, if employees did not adapt a KS culture, the expectations of an organizational culture restrained the knowledge-transfer process thus leading to knowledge. Culture also has a direct effect on employees influence to share knowledge and an indirect effect through influencing managers' attitudes toward KS (Wang & Noe, 2010). When employees have positive encouraging attitudes toward KS, a culture of coordination and cooperation may result along with employees becoming motivated and satisfied to making efforts toward organizational success (Ellahi et al., 2011). Suppiah and Manjit (2011) discovered that KS behavior influenced positively or negatively based on different culture types, which included clan culture, adhocracy culture, market culture, hierarchy culture, and organizations without a dominant culture. Mixed cultures with evidence of a dominant clan culture type had a positive KS behavior influence and mixed cultures

without indication of a dominant clan type had a negative impact on KS behavior (Suppiah & Manjit, 2011).

### ***Employee Attitude***

Employees' attitudes toward KS have been the topic of numerous research studies (Chow, 2012). Key factors that influenced employees' attitudes toward KS included (a) utilitarian motivation—upholding a reputation and receiving reciprocity; (b) control believe—possessing self-efficacy or confidence; (c) hedonistic motivation—enjoying helping others; and (d) contextual force—being part of a sharing culture (Liao et al., 2013). Employees who possessed high self-efficacy were also able to overcome impediments to KS (Zhang & Ng, 2012). The degree of organizational citizenship, absorptive capacity, and culture also factor in motivating employees to share knowledge, with positive relationships to KS intentions (Chiu, Hsu, & Wang, 2006). Employees' attitudes may be broken down into eagerness and willingness (Hoof et al., 2012). Willingness includes whether employees would grant others access to personalized intellectual capital. Eagerness includes whether employees have an internal drive to communicate personalized intellectual capital to others. Positive influences toward attitude (willingness and eagerness) will result in increased KS intentions. Some employees feel that knowledge provides power and are hesitant to share knowledge because doing so may cause a sense of being replaceable (Wu & Lin, 2013). Because employees gain knowledge through work experience, including from success and failures, the knowledge possessed may enable employees to exceed performance expectations and gain higher pay or more opportunities than others (Al-Alaw et al., 2007; Safa, 2019).

### ***Immediate Supervisor Support***

According to Sveiby (2007), a working team forms the nearest context for individuals. People's behavior is influenced by supervisors and co-workers in the working team. This is confirmed by Cabrera (2006) who found that perceived supervisor support and peer support play important roles in encouraging employees to share knowledge in organizations. A previous study also suggests that supportive supervisors not only encourage and value subordinates' knowledge contribution but also are good role models. For example, employees sometimes feel resentful about supervisors who do not walk the talk, that is supervisors talk about the importance of knowledge sharing, but actually they are not willing to share their knowledge (Sveiby, 2007). Managers should create a happy environment for employees using the current information. Wang and Noe (2010) identified support from managers as a critical aspect for KS, and organizational leaders should require and reward managers to provide appropriate support for encouraging KS. Chen et al. (2010) found employees care more about leaders' ideas and recognition about KS as compared to being peer pressured. Managers have been encouraged to promote a KS culture by ensuring guidelines, policies, and procedures related to KS are articulated (Chen et al., 2009). When managers supported an activity, employees had greater enjoyment and engagement in the activity, thus attesting positive relationships between management support and KS cultures (Tsolaki et al., 2017).

## ***Work Group Support***

Only a few studies have investigated a small number of team characteristics and processes in relation to knowledge sharing. The results of these studies suggest that team characteristics and processes influence knowledge sharing among team members. For example, the longer a team has been formed and the higher the level of team cohesiveness the more likely team members are to share knowledge (Kim & Han, 2006). Research has investigated how the minority status or diversity of team members relates to knowledge sharing. Based on the similarity-attraction paradigm, Ojha (2011) showed that team members who considered themselves a minority based on gender, marital status, or education were less likely to share knowledge with team members (Mohammed et al., 2017).

## ***Concept of Knowledge Sharing Intention (KSI)***

In general, knowledge sharing occurs when people who share a common purpose and experience similar problems come together to exchange ideas and information (Joseph et al., 2005). The process of knowledge sharing between individuals involve the conversion of the knowledge held by an individual into a form that can be understood, absorbed, and used by other individuals (Ipe, 2003; Gatawina et al., 2017). It is basically a mechanism by which knowledge is transferred from one individual to another. Even though most studies defined knowledge sharing at the individual level as a single dimension construct, there are also those who proposed a two dimensions perspective. For example, van den Hooff et al. (2012) defined knowledge sharing as the process where individuals mutually exchange their knowledge and jointly create new knowledge. This definition implies that knowledge sharing process consists of ‘donating’ and ‘collecting’ aspects of sharing. Similarly, Peng (2010) defined knowledge sharing as a reciprocal process of knowledge exchange, and thus entails contributing, as well as accumulating knowledge from the mass. “Knowledge transfer” typically has been used to describe the movement of knowledge between different units, divisions, or organizations rather than individuals.

According to Connelly (2012) and Yasser (2019) defined knowledge sharing as the exchange of knowledge, or the behavior that help others with knowledge. Ipe (2003) thought that the knowledge sharing between individuals was the process that private individual’s knowledge turns to be understood, absorbed and used by others. It means that knowledge sharing is at least a conscious behavior, and knowledge sources also don not want to give up ownership of knowledge. Knowledge sharing is an activity through which knowledge like information, skills, or expertise is exchanged among people, friends, families, digital communities, or organizations (Chin et al., 2015). Technology is not the only factor that affects the sharing of knowledge in organizations; others include organizational culture, trust, and incentives (Frost, 2014).

Knowledge sharing has been defined in several different but similar ways by different researchers. In general knowledge sharing has been defined as the action of individuals in making knowledge available to others within the organization (Ipe, 2003). Yi et al., (2008), on the other hand, has gave a broader definition of knowledge sharing indicating it as involving activities of transferring or disseminating knowledge from one

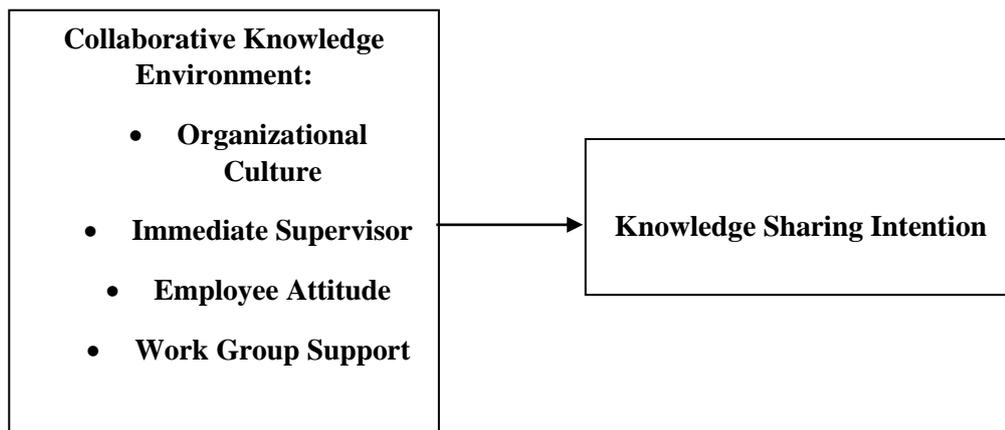
person, group or organization to another. In short, all these definitions agree that knowledge sharing is a mechanism to disseminate information and knowledge from one individual, group, or organization to another.

### ***Theoretical Framework (Theory of Reason Action, TRA)***

The theory of reasoned action explains how a person's behavior is influenced by one's intention to do something (Ajzen & Fishbein, 1980). This theory combines the three attributes: (1) intention, (2) attitude, and (3) subjective norms as the predictors of actual behavior to explain that the intention is determined by attitude towards behavior and subjective norm. Within the framework of sharing knowledge, intention to share knowledge of a person behaves is determined by one's attitude towards knowledge sharing behavior and subjective norms for knowledge sharing (Huber, 2001). Based on this theory, in the context of knowledge sharing intention, it is expected that individuals with respect knowledge may demonstrate more knowledge sharing behavior if they hold positive attitude towards knowledge sharing.

Therefore, it is meaningful to identify the factors that are influential to individuals' attitude towards knowledge sharing intention. Based on this, TRA can be a useful model for explaining the knowledge sharing intention in organizations. This theory explains that the intention is determined by attitude towards behavior and subjective norm. Within the framework of sharing knowledge, intention to share knowledge of a person behaves is determined by one's attitude towards knowledge sharing behavior and subjective norms for knowledge sharing (Hambrick, 2007).

Lin and Huang (2013) used TRA to understand KS including different motivations to explain KS intentions. Lin and Huang (2013) found that knowledge self-efficacy and enjoyment in helping other employees positively relate to KS attitudes and intentions.



*Figure 1: Research model*

## ***The Relationship between Collaborative Knowledge Environment and KSI***

There is a considerable amount of literature has examined the relationship between CKE and KSI. For examples, Bok and Kim (2002), Davenport and Qien (2010), and amongst all. Yet, the impact of collaborative work climate is rarely investigated on knowledge sharing intention. Organizational climate refers to shared and agreed perceptions of employees of their work environment. In fact, organizational climate is an interpretation of organizational messages by the organization members. Climate emerges from what individuals perceive to be important and influential in their work so that studying climate is more appropriate to capture the aspects of the social environment consciously perceived by organizational members (Shim, 2010). How staff perceive the climate determines how they will behave with it based on a social exchange perspective. According to social exchange theory (Blau, 1964), if the staff perceives the organization as a supportive organization, based on a reciprocity rule, they tend to be more effective in the organization. Collaborative climate refers to shared elements of an organization's culture that inspires staff to share knowledge (Senge, 2007). Therefore, the following hypotheses were formulated:

*H1.1 Organizational culture has a positive influence on KSI*

*H1.2 Immediate Supervisor has a positive influence on KSI*

*H1.3 Employee Attitude has a positive influence on KSI*

*H1.4 Work Group Support has a positive influence on KSI*

## **RESEARCH METHODOLOGY**

Determining the appropriate research method and design is essential for scholars, as each method provides different approaches to addressing proposed problems (Leedy & Ormrod, 2013). Commonly used research methods include qualitative, quantitative, and mixed-methods with different design options applying to each method (Arghode, 2012; Leedy & Ormrod, 2013). This study employs a quantitative survey study. The population of the study refers to all elements such as individuals, corporations, or events which fulfil the criteria of the sample included in the study (Burns & Grove, 1993). Accordingly, the target population for this study is employees of insurance companies who are operating in insurance services sector in Sudan specifically in Khartoum state. Employees working at all levels of management hierarchy were treated as the population of the study. Consequently, a convenient sample of (324) elements was selected from the population. For analysing collected data and test the hypotheses a number different statistical system and techniques were used. Person's correlations were implemented to identify the interrelationships among all the variables. Finally, path analysis in AMOS was used to test the direct and indirect effects for testing the hypotheses.

## MAIN FINDINGS

Table 1 summarizes the results of regression analysis. First, the results indicate insignificance relationship between organizational culture and immediate supervisor with knowledge sharing intention values of (estimate =.075,  $p > 0.05$ ) and positive relationship between two dimensions (employee attitude and work group support) with value (estimate =.227,  $p < 0.001$ ; estimate =.233,  $p < 0.001$ ) respectively on knowledge sharing intention.

Table 1: *Regression weights for relationship between CKI and KSI.*

| Relationship                |  | Estimate | S.E. | C.R.  | <i>p</i> |
|-----------------------------|--|----------|------|-------|----------|
| knowledge sharing intention | <--- organizational culture and immediate supervisor | .075     | .041 | 1.836 | .066     |
| knowledge sharing intention | <--- employee attitude                               | .227     | .053 | 4.305 | ***      |
| knowledge sharing intention | <--- work group support                              | .233     | .050 | 4.708 | ***      |

## DISCUSSION

The correlation analysis revealed a positive relationship between the proposed hypotheses. More precisely, the components of CKE namely, organizational culture, immediate supervisor, employee attitude, and work group support were partially correlated with KSI. The result of path coefficient analysis indicated that collaborative knowledge environment influences knowledge sharing intention. More precisely, two components of CKE had a significant positive influence on KSI. Employee attitude, and work group support on KSI, on the other hand, organizational culture and immediate supervisor had no positive influence on KSI. In particular, the findings reveal that two components of CKE, namely employee attitude and work group support have a positive significant influence on knowledge sharing intention, whereas, organizational culture and immediate supervisor had not influenced on KSI. This result comes as no surprise because it was not expected to find all CKE components are always positively associated with KSI. This finding is consistent with the results of Ahmed (2020) who indicate the relationship between the perceptions of a collaborative knowledge climate has a significant and positive relationship with intention to share knowledge in the organization (Mohammed et al., 2018). The result shows that when the employees perceive the organization more collaborative, they will tend to share knowledge more and more. Accordingly, it can be concluded that higher level of employees' attitude and work group support can lead to higher level of KSI in the Sudanese insurance sector.

Then, the findings indicate that organizational culture and immediate supervisor support has not influenced on knowledge sharing intention. In line with this finding, many prior studies have found that organizational culture and immediate supervisor support have positively influences KSI (e.g., Elham, 2018; Razmerita et al., 2016) and they were showed that the dimensions of collaborative work climate have different effects on knowledge sharing intention. The immediate supervisor had a low impact on knowledge sharing intention. The explanation of these findings could be, on the one hand and this is due to the fact that in the organization under the study, the nature of work was very centralized and bureaucratic. In fact, the organizational procedures, rules, and obligations

were very strict. As a general conclusion, as it is pointed by Allahdadi (2011) and Ahmed et al. (2020), it can be concluded that a type of psychological empowerment can occur as a result of collaborative work climate and this will lead to better knowledge sharing capability amongst employees in the organizations. The Management Support factor was also found to be the second strongest predictor of knowledge sharing attitude. Extending the work of Lin and Lee (2004), and Lin (2007), this study emphasizes the need to involve senior management of organizations more actively. Because of the hierarchical setup of most organizations where decision making is largely centralized, employees feel a sense of disconnect between themselves and the higher authority. However, organizations that show a fundamental level of management support have managed to increase their employees' motivation to engage in more active knowledge sharing in Saudi Arabia.

The findings indicate that employee attitude has a significant positive influence on knowledge sharing intention. This finding agrees with Bock and Kim (2002) and Tsolaki (2017) who found that attitudes towards knowledge sharing had a significant influence on behaviour intention. This also corroborates the finding of Ellahi and Mushtaq (2011), and Karim (2017) that confirmed that the attitudes of bloggers, towards knowledge sharing, significantly affected their intention to share knowledge in blogs. Similarly, there has been an extensive amount of literature supporting the positive correlation between employee attitude and KSI (e.g., Aliereza, 2012; Kuo & Young, 2008; Kolekofski & Heminger, 2003; Bock et al., 2005; Pavlou & Fygenson, 2006; Ouakouak et al., 2018). These results indicate that a positive attitude about knowledge sharing by individuals lead to their intention to share their knowledge.

The results also revealed that work group support has significant positive influence on knowledge sharing intention. Although this finding is similar to results of Allahdadi (2011), Aliereza (2012), and Ahmed et al., (2020) who reported that work group support has a positive influence on knowledge sharing intention. However, these results demonstrated that work group support positively and significantly influence the intention to knowledge sharing in the organization. Therefore, for having a good rate of knowledge sharing in the organization, all managerial actions should be organized toward creation of a collaborative knowledge environment.

## **RESEARCH IMPLICATIONS**

From a theoretical perspective, this study contributes to the literature in several ways. First, the results of the study suggest that attitude towards knowledge sharing affects intention and further the actual behavior of knowledge workers. Organizations should promote knowledge sharing intention by managing factors that influence knowledge worker's attitude towards knowledge sharing. Secondly, the findings reveal that not all CKE dimensions are equally valuable to firm's knowledge sharing intention; because two of CKE dimensions (i.e., employee attitude, and work group support) appeared to have a significant impact on KSI. In contrast, the remaining two components (i.e., organizational culture and immediate supervisor) were found to have no influence on KSI. Thirdly, the result shows that when the employees perceive the organization more collaborative, they will tend to share knowledge more and more. Therefore, for having a good rate of knowledge sharing intention in the organization, all managerial actions should be organized toward creation of a collaborative knowledge environment. Managerial activities

like open communication space, innovative friendly organization, reward system optimization, using transformational leadership styles, management by objective, and decentralization are advised. Finally, the results of this study provide comprehensive insight and directions to future studies which in turn contribute to tackling the limitations of the current study and offer a clear interpretation for the relationship between existing variables through the mechanism of mediation variables.

## CONCLUSION

Even though this research has drawn intellectually and practically meaningful implications, there are a few limitations. Firstly, this study did not determine the type of knowledge that shared; thus, this is an area for future research to consider. For instance, how knowledge type intervenes the effects on knowledge sharing. In addition, the results of the coefficient of determination reported that the dimensions of CKE (i.e., employee attitude, and work group support, organizational culture and immediate supervisor support) explain only below half of the variation in KSI. Future research should add other constructs such as self-efficacy, personality traits, leadership styles, trust, organizational commitment, perceived ownership of knowledge, task inter dependence, and others to the research model to determine their influence on knowledge sharing intention. Second, the major limitation of this study appears to be the sample size. Therefore, future researches with large sample size is likely to provide a higher degree of statistical significance. Lastly, data of this study was collected from the private insurance firms in Khartoum state which is one of Sudan's states. The results might not be generalizable due to the organizational characteristics unique to the public organizations of Sudan. In order to generalize the results from this study, we need to collect data from various industries, states and countries.

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