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Review Article

Literature Review on Knowledge Sharing among University Lecturers

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Abstract: Knowledge sharing has been recognized as the most important factor in the success of knowledge management. It determines the development of each organization, of which universities are typical organizations. The new model of knowledge management requires exchange and cooperation among university lecturers, creating a better knowledge-sharing environment for effective knowledge management strategies, and encouraging lecturers to participate in common knowledge-sharing activities. Therefore, the article is aimed at reviewing research works related to knowledge sharing in universities. From there, some suggestions are drawn to improve the efficiency of knowledge sharing, knowledge sharing management, and university effectiveness.
Keywords: Knowledge sharing, knowledge sharing management, university lecturers.

1. INTRODUCTION

The process of globalization is taking place strongly, which leads to the shift of labor from manual labor to knowledge-based labor. Besides, the development of a knowledge-based economy has shown the importance of knowledge management as well as knowledge sharing. Noor *et al.*, (2014) consider knowledge sharing to be a fundamental part of knowledge management because it enables knowledge to be accessible and usable within and between organizations. Knowledge has recently been increasingly recognized as one of an organization's most valuable assets (Zahari *et al.*, 2014). Knowledge has also been identified as a competitive resource (Ngah and Ibrahim, 2010), core competency, and tool for organizational excellence (Lin, 2007b). In addition, knowledge is very important for the long-term sustainability and success of any organization (Elogie, 2010).

A university as an academic institution acts as a repository of knowledge, especially if that knowledge is organized and organized. Knowledge is one of the important resources in an academic environment because all organizations are knowledge-centered. In the field of education, one of the ways to effectively manage diverse types of resources and knowledge sources to improve efficiency and sustainable development is to manage and promote knowledge sharing.

Industry 4.0 has been improving the quality and value of the life of human society. In that context, knowledge is an important factor of production, the basis for the organization to develop in-depth. Human resources are a decisive factor in the success or failure of an organization in general and a university in particular. In universities, the quality of teaching staff determines the quality of student output, and other resources are important and supportive. It can be seen that an important resource for the sustainable development of all organizations is knowledge. It creates a competitive advantage for the organization in today's volatile and fiercely competitive market economy (Davenpork and Prusak, 1998; Foss and Pederson, 2002; Grant, 1996). In addition, this knowledge sharing will help improve working efficiency with more knowledge that needs to be cultivated in life as well as in daily work. Therefore, this is a topic of interest to many scholars around the world.

2. Research on knowledge sharing

Knowledge is increasingly recognized as a valuable asset of an organization (Zahari *et al.,* 2014). This is identified as a competitive advantage (Ngah and Ibrahim, 2010), core competency, and an effective tool for outstanding productivity (Lin, 2007). And it has an important and sustainable meaning for the success of public organizations, government, or private organizations (Elogie, 2010). Nonaka and Peltokor (2006) define data that can be classified in the form of

numbers, images, and sounds derived from observations or measurements. The information represents data arranged in meaningful patterns. Knowledge differs from information in beliefs, commitments, attitudes, intentions, and actions. Von (1989) argued that knowledge can be built through experience and interactions with others.

The study of knowledge in organizations includes the study of the nature of knowledge and the process of knowledge sharing (Ipe, 2003). Knowledge is defined as "a dynamic combination of experiences, values, contextual information, and insights" (Davenport and Prusak, 1998). Knowledge sharing is the process of exchanging knowledge with each other and jointly creating new knowledge (van den Hooff and de Ridder, 2004); it implies the synergistic cooperation of individuals working together towards a common goal (Boland & Tenkasi, 1995). Knowledge Sharing is defined as "the provision of mission information and know-how to help others and collaborate with others to solve problems, develop new ideas, or implement policies or procedures" (Wang, Noe, 2010). Knowledge sharing can also be defined as the flow of information between individuals, providing, seeking, and receiving knowledge from others and integrating that knowledge into their own knowledge sets (Cabrera *et al.*, 2006).

Knowledge-sharing activities play an important role in influencing the learning outcomes of students. This is the initial step to creating conditions for learning and applying new knowledge (Paulin, Suneson, 2012). Learning outcomes and knowledge sharing have been assessed by many studies to have a positive relationship (Du, Wagner, 2007; Gomez *et al.,* 2010; Lui *et al.*, 2006). Many studies also show that enjoyment of the learning process is increased and satisfaction with the learning process is increased, which has been shown to have a positive impact on the learning process of learners (Gomez và cộng sự, 2010; Lui và cộng sự, 2006; Zhu, 2012).

Knowledge sharing is also understood as a way to help communities of people work together, facilitate knowledge exchange between people, help guide learning, and improve the ability to achieve the goals of individuals and organizations (Dyer, Nobeoka, 2000). Knowledge sharing refers to the reciprocal exchange of knowledge between at least two parties, allowing knowledge to be shaped and shaped in new contexts (Willem, 2003). Knowledge sharing can be defined as a culture of social interaction, which involves the exchange of knowledge, experience, and skills of employees through an entire department or organization.

Knowledge sharing is a fundamental part of knowledge management because it enables knowledge to be accessed and used within organizations (Noor *et al.*, 2014). Educational institutions generate operational

knowledge in a similar way to that of firms, including operational knowledge generated through teaching and learning (Chen, Lin, 2009). Knowledge is an important resource for an organization. Knowledge sharing contributes to the development of competitive advantages for organizations, by enhancing knowledge capital, by encouraging knowledge exchange and creation within an organization (Phung, 2019). This is because knowledge is the key to achieving continuous innovation at both the individual and organizational levels. It is also considered a factor closely related to the progress of any individual or organization. Therefore, knowledge sharing is an essential issue that needs to be studied and evaluated, etc.

The role of the faculty includes teaching, research, and consulting. Besides, through lectures, lecturers demonstrate the role of disseminating knowledge to their students. Lecturers are knowledge producers and sharers of knowledge for students, helping to develop education and improve organizational performance. The lack of knowledge sharing among lecturers will lead to limited use of resources and narrow learning opportunities for students and faculty (Jolaee *et al.*, 2014).

3. Research on knowledge management

Knowledge management is defined as an organization's ability to leverage its knowledge assets to enhance its competitiveness (Wiig, 1997). Gold *et al.,* (2001) developed the organizational definition of knowledge management by pointing out the importance of technical infrastructure, culture, and knowledge management support within the organization. Technological infrastructure such as business intelligence systems, organizational structure, and cultural factors such as shared culture all contribute to the development of knowledge management (Gold *et al.*, 2001). Modern knowledge management is rooted in the work of Nonaka and Takeuchi (2006). Knowledge management is defined based on the knowledge creation spiral, in which different forms of knowledge are combined, socialized, internalized, and specialized to transform knowledge and allow people to use knowledge (Nonaka, 2006). The types of knowledge identified include tacit knowledge (unwritten knowledge, which may not even be recognized by the knowledge holder and can be passed on from person to person) and explicit knowledge (knowledge that is formally written down and shared among people) (Nonaka, Takeuchi, 1995). Paulin and Suneson (2012) point out that knowledge management is an interpersonal process that includes knowledge creation, knowledge transfer, knowledge sharing, and knowledge barriers.

Many studies are showing different divisions of the knowledge management process. The knowledge management process can be divided into two processes: applying knowledge management and developing

knowledge management (Wiig, 2012; Wong and Aspinwall, 2005). Some other studies divide knowledge management into 5 stages: (i) knowledge generation, (ii) knowledge transfer, (iii) knowledge storage, (iv) knowledge sharing, and (v) knowledge application (Nikabadi, 2014; North and Kumta, 2018). These five stages of knowledge management require individuals to regularly contribute and share knowledge, rather than keeping it to themselves. Knowledge needs to be shared with others through chat or personal written communication. Knowledge management can be combined with information technology to share data and knowledge more efficiently and quickly (Tseng, 2008). Knowledge management is a business process through which an organization creates and uses knowledge (Sarvary, 1999; Demhest, 1997).

In the current context, methods of improving knowledge management systems, and creating shared and integrated systems help improve the performance of organizations (Abubakar *et al.*, 2019; Del. and Della, 2016). Digital innovation in knowledge management systems helps drive business models through the optimization of new knowledge (Di *et al.*, 2021). Using digital tools in knowledge management helps to improve business efficiency and innovate operating models, so it is necessary to create a lot of new knowledge and apply many technologies in managing, sharing knowledge sharing, and helping to support global and inclusive growth (Di *et al.*, 2021). Effective knowledge management has brought competitive advantages to many agencies such as Xerox, IBM, Microsoft, Shell, Mitsubishi, etc (Okeyere *et al.*, 2010). To promote and enable knowledge sharing, managers need to understand what motivates individuals to share knowledge (Liang *et al.*, 2008).

4. Research on knowledge-sharing motivation
The driving force of knowledge sharing comes from the fact that individuals have different areas of knowledge and expertise, so knowledge sharing improves overall performance (Haas, Hansen, 2007). Knowledge sharing is not considered a uniform process because of differences between individuals, relationships, and different types of knowledge (Haas, Hansen, 2007). Knowledge sharing is also highly variable depending on individual factors such as organizational context, interpersonal and group characteristics, cultural characteristics, personal characteristics, motivational factors, and perceived (Wang, Noe, 2007).

Motivation to share knowledge with others is from external pressure and internal pressure (Chang, Chuang, 2011). These motivations include the individual's attitudes and beliefs (intrinsic motivation), such as altruism and sharing; learning orientation; team trust and cohesion; feeling; positive psychology; scientific research intent; extrinsic motivations such as recognition and rewards (Chang, Chuang, 2011; Choi

và cộng sự, 2008; Hung, 2008; Lin, 2007; Papadopoulos và cộng sự, 2007). Environmental factors, personal characteristics, and personal motivation were identified as factors affecting students' knowledge sharing (Wang, Noe, 2010; Cumming, 2004). Various aspects of the organizational environment are important drivers of knowledge sharing, such as management support (Lin and Lee, 2004; Bock *et al.*, 2005); employee engagement (Bock and Kim, 2002; Connelly and Kelloway, 2003); encouragement to develop new ideas (Taylor and Wright, 2004); reward system related to knowledge sharing (Bartol and Srivastava, 2002). Through knowledge sharing, lecturers can know what their colleagues are doing and using methods and approaches (Aczel, Clow, Mc Andrew, and Taylor, 2004). Knowledge sharing is also effective to avoid duplication and inconsistency in lectures, especially when new scholars have new lectures (Arntzen, Ribière & Worasinchai, 2009).

Sharing knowledge within organizations improves organizational performance (Lesser and Storck, 2001), promotes competitive advantage (Argote and Ingram, 2000), organizational learning (Argote, 1999), and innovation new (Powell *et al.*, 1996). The competitive advantage of organizations increasingly depends on effective knowledge management and organizational learning (Riege, 2005). Successful implementation of a knowledge management system depends on employee behavior (Park, Ribiere, & Schulte, 2004), especially on knowledge sharing among employees.

The research model of knowledge-sharing motivation can be based on two prominent theories of motivation: the theory of planned behavior (TPB) (Ajzen, 1991) and self-determination theory (SDT) (Deci & Ryan, 1985, 2000). Previous models of knowledge-sharing dynamics only discussed motivation in terms of magnitude or quantity. The self-determination theory model proposes that motivations differ not only in degree but also in quality. Autonomous motivation has been shown to lead to better outcomes in behavior and performance than controlled motivation (Gagné & Deci, 2005).

Knowledge sharing is intentional behavior, so it can be studied using the Theory of Planned Behavior in which intentions are assumed to capture the motivational factors that effects a behavior (Ajzen, 1991). The three factors that influence intention are (1) attitude towards behavior, (2) social norms related to behavior, and (3) belief about one's ability to control behavior. They are similar to the concepts of perceived control, self-efficacy (Bandura, 1982), and the need for competence (Deci & Ryan, 2000).

Attitude is the degree to which a person rates behavior as beneficial or unhelpful. Subjective norms

are perceived social pressures to perform or not to perform behaviors. Controlling beliefs involve having the necessary skills, resources, and opportunities required to engage in a behavior. Researchers have used the Theory of Reasoned Action (Ajzen & Fishbein, 1980), from which the theory of planned behavior was developed, to study knowledge-sharing behavior (Bock, Zmud, Kim, & Lee, 2005; Cabrera & Cabrera, 2005). The empirical findings also show the usefulness of the theory of planned behavior in studying knowledge-sharing behavior in organizations. Chiu, Hsu, and Wang (2006) found that norms of reciprocity are positively related to knowledge-sharing behavior in a virtual community of practice.

The self-determination theory (SDT) model suggests that intention is a motivating factor affecting behavior (Ajzen, 1991). Ajzen argues that the stronger a person's intentions are, the more likely he or she is to perform the behavior. However, research shows this isn't always the case. According to research by Sheldon & Elliot (1998), the type of motivation to engage in a particular action, or people's reasons for engaging in that action, also affects the performance of that action (Sheldon & Elliot, 1998).

The theoretical model of self-determination (Deci & Ryan, 2000) provides a multidimensional framework with two types of two-level dynamics. Autonomous motivation means participating in an activity unconditionally, pursuing an activity because it is enjoyable and enjoyable (intrinsic motivation), and pursuing it because it is personally meaningful and rewarding which fits into one's value system (defined prescriptive). Controlled motivation means engaging in an activity because of pressure that can come from external sources, such as promised rewards and threats of punishment (external regulation), or external sources, such as when oneself depends on the excellent completion of a task (inner regulation).

Research into the sharing motivation model will promote participation in knowledge-sharing behavior and potentially lead to more successful interventions to increase knowledge sharing in organizations. Knowledge-sharing behavior shares similarities with many other voluntary behaviors, such as helping and pro-social behavior (Frey, 1993). Therefore, it is necessary to use a motivation theory that is useful in predicting such behaviors, so the use of SDT theory (Deci & Ryan, 2000) helps to predict and develop behavior sharing, bringing benefits and efficiency to the organization.

The value of knowledge means that individuals can use it to gain status, power, and rewards. Researchers have studied motivations for knowledge sharing as a function of reciprocity, recipient relationships, and rewards (Ipe, 2003). Reciprocity means that individuals must view the sharing of knowledge as personally valuable or important to achieve a collective goal of value to be willing and willing to share (De Vries, Van Den Hooff, & de Ridder, 2006). For the sake of organizational performance, sharing and cooperation within the organization should be encouraged (Pruitt & Kimmel, 1977).

Knowledge-sharing research to date has mainly focused on controlled motivation (Cabrera & Cabrera, 2002), namely reciprocity, improving one's reputation, doing the right thing, and emotions positive. However, research shows that autonomous motivation leads to more positive behavioral outcomes than controlled motivation (Gagné & Deci, 2005), such as better performance on complex and creative tasks (Amabile, Goldfarb, & Brackfield, 1990), seeking positive information (Koestner & Losier, 2002), and achieve goals (Sheldon & Elliot, 1998). Knowledge-sharing behavior is likely to be motivated in a similar way to helping and pro-social behavior, which is difficult to motivate through reward and pressure (Frey, 1993), may be particularly important to focus on increasing self-motivation. Attempting to promote helping behavior by using tangible rewards will reduce that behavior (Wright *et al.*, 1993). Similarly, research shows that goal-achievement motivations reduce organizational civic engagement.

Autonomous motivation outperforms controlled motivation when it comes to the motivations for performance and retention among volunteers (Gagné, 2003; Millette & Gagné, 2008) and repetitive behavior (Green- Demers *et al.*, 1997). Research by Poortvliet, Janssen, Van Yperen and Van de Vliert (2007) shows that people with performance goals (similar to extrinsic motivation) are less likely to communicate with their partners than those with high proficiency goals (similar to intrinsic motivation). Proficiency goals trigger reciprocity orientation that facilitates sharing, similar to social exchange (Shore, Tetrick, Lynch, & Barksdale, 2006), while performance goals trigger orientation Exploitation hinders sharing but facilitates effective use of information. These results demonstrate the importance of considering knowledge-sharing reasons as an important predictor of sharing behavior. We can hypothesize that motivated people will want to share knowledge simply out of a passion for their work and as self-expression (similar to eagerness) (De Vries *et al.*, 2006). While this can lead to high knowledge-sharing behavior, it may not necessarily lead to the most useful knowledge sharing and may even be a waste of others' time. People with identified motivations will share knowledge to help others in their work or to help their team achieve valuable goals, which in principle should lead to more effective sharing behavior more effective (Gagna, 2009). People with introverted motives may share to demonstrate knowledge and boost their self-esteem, in which case the information shared may not be useful to

others. Ultimately, forcing people to share knowledge through the promise of reward or threat of punishment may result in the minimum amount of sharing required, which may not be sufficient for the recipient. Thus, the type of knowledge-sharing motive can have profound consequences not only in terms of the quantity shared but also in the quality and usefulness of the information being shared.

The self-determination theory model also proposes that the application of controlled or autonomous motivation depends on satisfying basic psychological needs for autonomy, competence, and involvement. The self-determination theory model defines needs as those nutrients essential for optimal human development and integrity (Ryan, Sheldon, Kasser, & Deci, 1996). A need is fundamental when satisfied promotes psychological health and when hindered weakens it. Because demand is basic to all individuals. The self-determination theory model focuses not on individual differences in power needs but on meeting them in each context (Gagné & Deci, 2005). The shared motivation model is based on the self-determination model and the theory of planned behavior, presenting knowledge that combines the quality of motivation, need satisfaction, and management practices. Human resources (HRM) can influence the variables in the model.

5. Studies on factors affecting knowledge sharing

A study was conducted with the research subjects being students in the business management course at RMIT (sample number n=103), the research results showed that the factors affecting the sharing of Knowledge in universities are influenced by 3 groups of factors: personal level (students' knowledge, experience, self-efficacy); level of faculty (knowledge, experience, trustworthiness, equity) and environmental level (course context, diversity in group structure) (Sriratanaviriyakul *et al.*, 2017). The factors of previous knowledge and experience of students and lecturers, and the context have a positive influence on the level of knowledge sharing. In addition, other factors such as student confidence, faculty characteristics, and diversity in subject structure did not have a significant effect on knowledge sharing (Sriratanaviriyakul *et al.*, 2017).

Social networks and self-efficacy significantly influence organizational attitudes and support strongly influences subjective intentions in knowledge sharing (Ali *et al.*, 2014). Personal factors (like helping others and self-efficacy) and organizational factors (leadership support) have a significant influence on the knowledge-sharing process (Lin, 2007).

Individual factors are considered to be facilitators and facilitators of knowledge-sharing activities. Individuals are intrinsically motivated to contribute knowledge, engage in exchange activities, share knowledge, and enjoy helping others (Wasko and

Faraj, 2000; Wasko and Faraj, 2005). Knowledge sharing depends on individual characteristics, including experiences, values, motivations, and beliefs (Wasko and Faraj, 2005). Knowledge sharing among lecturers at university lecturers at Jordan University was identified to include personal, organizational, and technological factors (Alhawary, 2017).

Factors that influence knowledge sharing within an organization include trust, reward systems, teamwork, communication with colleagues, size of senior management support, information technology, and engagement. participate in knowledge-sharing activities (Tran, 2020). Higher education institutions are increasingly forced to operate as a business (Malik, 2005; Sulisworo, 2012). As a result, universities are also subject to market pressure, which requires them to innovate and compete.

Many studies have been carried out to examine the factors affecting knowledge-sharing intention in different organizations (Davenport and Prusak, 1998; Bresman *et al.*, 1999; Kim, 2000; Bartol and Srivastava, 2002; Ipe, 2003; Kim and Lee, 2006; Ryu *et al.*, 2003; Chatzoglou and Vraimaki, 2009; George, 2004). Similar to other institutions, educational institutions tend to share more knowledge (Bock and Kim, 2002; Ryu *et al.*, 2003). Universities play the role of providing knowledge and ideas (Martin and Marion, 2005). In the university, knowledge sharing plays an important role and is an important component of success in knowledge management (Rowley, 2000).

Previous studies have shown many factors affecting knowledge sharing. These factors include attitudes (So and Bolloju, 2005; Bock *et al.*, 2005); rewards (Bock *et al.*, 2005; Kim and Lee, 2006); organizational environment with fairness and trust, innovation and alignment (Bock *et al.*, 2005; Sun and Scot, 2005); subjective standards (Bock *et al.*, 2005), social networks (Kim and Lee, 2006); fear of losing control and ownership of knowledge (Sun and Scot, 2005); and predicted reciprocal relationships and cooperative behavior (Bock *et al.*, 2005; Lu *et al.*, 2006). Empirical research by Riege (2005) has identified important factors influencing knowledge sharing, including personal factors (eg, lack of trust, fear of losing power, and lack of social networks), organizational factors (e.g., lack of leadership, lack of appropriate reward systems and lack of sharing opportunities) and technological factors (inappropriate IT systems and lack of training). In addition, the nature of knowledge will affect the ease of sharing of knowledge and its value will affect people's motivation to share (Ipe, 2003). Shareability also has the potential to affect people's willingness to share. However, the motivating factors that Ipe (2003) mentioned for the study of knowledge sharing are mostly controlled motivation, leading to less positive results than autonomous motivation.

CONCLUSION

Sharing knowledge within organizations improves organizational performance and promotes competitive advantage, organizational learning, and innovation. The competitive advantage of organizations increasingly depends on effective knowledge management and organizational learning. Successful implementation of a knowledge management system depends on employee behavior, especially on knowledge sharing among employees. The role of the lecturer includes teaching, research, and consulting. Besides, through lectures, lecturers demonstrate the role of disseminating knowledge to their students. Instructors are knowledge producers and sharers of knowledge for students, helping to develop education and improve organizational performance. A lack of knowledge sharing among faculty will lead to limited use of resources and a narrowing of learning opportunities for students and faculty. Therefore, in the future, there should be more research on knowledge sharing among lecturers in universities.

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