# Sustaining Knowledge in SMEs: Integrating Workplace Learning in Enhancing Knowledge Sharing Behavior

Suzilawati Ibrahim, Low Hock Heng

**Abstract—** There are widely recognized the importance's of knowledge for both sectors either large organization or Small Medium Enterprise (SMEs) to increase company performance. Thus, important knowledge must be retained in organizations before this knowledge could be lost through redundancy, retirement, resignation and even through promotion. Therefore, organizations whose practicing knowledge sharing could acquire knowledge for knowledge using in the future and at the same time enhance the accumulation of knowledge for employees and the organization as a whole. However, some workers are willing to share knowledge, but some of them seem uninterested to share knowledge if there is a possibility makes them become less valuable. Thus, the factors that influence knowledge sharing must be understood in order to examine the knowledge sharing behavior. Since learning could change individual behavior, it's could promote knowledge sharing behavior among workers. Thus, the purpose of this paper is to critically review and examine workplace learning and emerge with knowledge sharing behavior. Further, the critical factors which related to the knowledge sharing behavior were analyzed to construct the integration between workplace learning mode and knowledge sharing process. Then, this paper aimed to explore a connection between workplace learning and knowledge sharing behavior in order to sustain and create a new knowledge. From the literature, this paper could enable understanding for practitioners or SMEs regards the process of workplace learning in order to promote knowledge sharing.

**Index Terms**—Knowledge Management, Knowledge, Knowledge Sharing, Learning, Workplace Learning, Individual Learning, Behavior, SMEs

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## 1 INTRODUCTION

KNOWLEDGE is one of the main critical resources and the crucial factor in the development of competitive advantage in organizations (Anitha, 2006). Knowledge is produced during day to day interactions (Huysman and Wit, 2002) through social interactions amongst individuals and organizations. Some of knowledge cannot be expressed or is highly personal to formalize. However, some of knowledge can be expressed and exist in textual form and easily stored. In view of the personalized and tacit nature of some of the working knowledge, this knowledge could be lost whenever an employee leaves an organization (Al- Hawamdeh, 2003; Ju et al., 2006). Since, knowledge is now considered a factor of production; it must stay within organization in order to ensure the organization's strategic advantage. Thus, knowledge management has become a very important tool to ensure organizations are able to capture, shared, and applied productive knowledge within them in order to increase company's performance (Ju et al., 2006).

However, Wong and Aspinwall (2004) indicated that SMEs generally lack a proper understanding of knowledge sharing and is slow in adopting formal and systematic knowledge sharing practice. This is because most of the SMEs feel that it is not feasible to establish a formal system for codifying, organizing and storing knowledge since they are always busy with

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their daily routines (Wong and Aspinwall, 2004). They tend to focus more to company survival lead to poorly documented knowledge which creates problems when their key resource leaving (Debowski, 2006). Therefore, knowledge sharing is very important components and considered as core competencies in knowledge management because the critical outcome of knowledge sharing is the creation of new knowledge and innovation to improve organizational performance (Al-Hawamdeh, 2003; Pasher and Ronan, 2011; Liu, 2008). Through knowledge sharing, important knowledge could be retained in organizations.

Generally, not all of workers are willing to share their knowledge without any benefit to them. People are willing to share knowledge when they perceived KS as a socially good initiative (En, 2011), but are unwilling if there is a possibility of erosion of power held by them which makes themselves become less valuable (Wu and Zhu, 2012; Zhang and Ng, 2012; En, 2011; Anitha, 2006). Thus, we should know the process of human behavior in order to understand KS behavior. The behaviorism learning indicated that peoples' behavior changed when they are involved in stimuli and response from their environments. Thus, individual behaviors are affected by the degrees they contributed in learning and the result of learning will translate into observable or changed behavior. Therefore, learning at workplace offered riches of work experiences to create and enhance knowledge among employees because learning through work directed towards workplace requirements to transform work practices and specific needs in the workplace (Billet and Choy, 2013). Hence, there is growing interest in discussing learning at work among academicians

and practitioners because work experiences playing important roles in working life. Unfortunately, there is little evidence about the pattern of learning in organizations (Loogma, 2004) especially in SMEs. Most of SMEs are not able to invest enough to provide training for their employees because of non-existing training budgets, ownership and control, fear of poaching, and pressure of growth, and size (Loogma, 2004; Hendry et al., 1995). Consequently, companies that is unable to maintain a cost need to shift to a knowledge and learning as innovative ways to use resources. Moreover, to be competitive, SMEs need to make internal changes to deal with the changing of business environment customer preferences (Miller, 2005).

## 2 AIMS AND OBJECTIVE

The purpose of this paper is for reviews and examines workplace learning for generating knowledge continuously. This paper will begin with reviews the concept of organizational learning through workplace learning perspective. Further, the critical factors which related to the knowledge sharing behavior were analyzed to construct the integration between workplace learning mode and knowledge sharing process. Then, this paper aimed to explore a connection between workplace learning and knowledge sharing behavior in order to sustain and create a new knowledge. We decided to review these two concepts because workplace learning is the most valuable asset in organization to compete in business competition. Moreover, knowledge sharing is an important component and considered as core competencies in knowledge management (Pasher and Ronan, 2011; Liu, 2008). Although company performance definitely associated with workplace learning and knowledge sharing in order to create and transfer knowledge into the workplace to increase companies' profit, however, there is limited research conducted to examine the correlation between workplace learning and knowledge sharing process. Thus, this paper could be the groundwork for practitioners or SMEs to create understanding regarding the process of workplace learning in order to promote knowledge sharing.

## 3 WORKPLACE LEARNING

Learning in the workplace serves as the prevailing mode of skills and competence development for employees (Loogma, 2004) to maintain skills throughout working life for work transitions (Billet, 2010). Generally, learning in the workplace can be understood through participating in work activities as independence negotiation between social and personal factors. Furthermore, learning in the workplace can be conceptualized as a social contribution because individuals will encounter, interact and construct through participating in work activities (Billet, 2008). However, there is a need to identify curriculum and pedagogical practices to sustain workplace learning for both novices and experienced workers to maintain currency of knowledge (Billet and Choy, 2013). According to Tynjala (2008), learning in the workplace may happen through individuals, groups, expert guidance or whole organizations by participating in various work practices, collaborations and meet new challenges. Thus, organizations should provide

workplace as learning experiences such as learning through practice, through work errors, learning projects, critical reflections through experiences, direct guidance from experience coworkers and the development of workplace curriculum (Billet, 2010).

### 3.1 Individual Learning

Individual learning is one form of learning in the workplace (Tynjala, 2008) and appears through social interactions amongst individuals, reflections and experience at workplace to create a new knowledge (Raelin, 1998). Therefore, individual learning arises from complex contributions and negotiation between social and personal factors (Billet, 2008) and related to environments, experiences and reflections practice in organizations. Hence, individual learning is very important to adapt in work towards individual knowledge development and to increase competencies (Lappia, 2011). Moreover, individuals can continue to develop their knowledge when they actively construe and construct the meaning (Billet, 2008) because thinking processes offers a powerful stimulus to analyse current and future knowledge flow (Huysman and Wit, 2002). Particularly, employees might be encouraged to individually experiment in their own work setting through past job experiences with some ideas to bring up (Raelin, 1998). Meanwhile, discussion might encourage employees to individually reflect upon their own jobs to bring in new ideas to practice in their workplace.

Reflection is one type of explicit individual learning to stepping back from experience to ponder and express the meaning to self and to others (Raelin, 2008; Daudelin, 1996). Therefore, reflection plays a special role in drawing meaning from experience (Boud et al., 1993). Furthermore, reflection process is needed to draw meaning from experience because learners must recapture and re-evaluate their experience to turn it into learning (Jarvis, 2005; Boud et al., 1993). In other words, reflection happens when individual engaging an experience from outside and turns it inside the mind to make connections with other experiences (Daudelin, 1996). Reflection happens to our job routine when we analyzed and reflected our experiences through reports, performance review and problem solving process (Daudelin, 1996) or in our personal lives through discussion with friends, parents, spouse and counselors. When we stop and reflect, we at the best capture what we had already learned tacitly in the past and our learning may be continued beyond that point of capture Raelin (2008). According to Mezirow (1990), reflection is the most significant learning process for adulthood because it's related to the evaluation of experiences and transforms the new perspective. Furthermore, reflection is a key part of experiential learning because of learning from experience need us to examine and analyses that experience (Fry et al., 2009).

Learning is built on and flows from experience because learning only can occur if the experience of the learner is engaged (Boud et al., 1993). Working with our experienced is one of the keys to learning. Moreover, learning from experience, process, and practices lead to the creation of knowledge and generate new ideas and concepts to improve an organization's productivity (Al- Hawamdeh, 2003). Thus, learning from knowledge and experience is considered as an essential ele-

ment and would contribute to business improvements (Law and Ngai, 2008). According to Kolb experiential learning cycle, the process of learning begins when individuals actively experience and involved fully an activity in concrete experience stage. Then, learners consciously reflect back on their experience from a different perspective in reflection and observation stage. Finally, learners try to conceptualize and integrate the new ideas into logical theories and finally trying to use a model or concept for a forthcoming experience in new situations.

Our experience can contribute significantly to our reflection. However, reflective practice tends to probe to a deeper level than trial and error experience (Raelin, 2008). How reflection practices in the workplace is depend on our situation or condition. In the learning team structure, the people who engage in similar work in the group tend to encounter similar difficulties, questioning the problem and offer practical suggestions to others. Thus, at the same time, the people in the group could learn how to manage their own problems. The journal is useful to help individuals reflect on their experiences in workplace or in everyday life and serve as a vehicle to integrate information and experience. Moreover, the journal writing is a powerful technique to enhance self-reflection and helps individuals to track their learning (Raelin, 2008). However, portfolios help learners not only focusing on current accomplishments, but also on future needs through reflection process. Portfolios often produced in electronic format and prepared as a more public document which they allow learners illustrated their work. Furthermore, developmental planning represents a practical form of reflective practice through participation in development program according to their needs in achieving organization's goals.

### 3.2 Group's Learning

Learning in groups offers a distinct set of advantages to organizations. Beside contribution to the project operations, members may also develop a personal development plan for the individual according to the teams' feedback. The purpose of working in groups and teams is to promote knowledge sharing and thus to enhance individuals' learning. Hence, the ability to learn in collaboration within and outside organization often contributes to the company successful (Tynjala, 2008). Furthermore, groups learning provide many opportunities for members to develop their interpersonal and professional skills because learning in groups explicitly focuses on member's development (Raelin, 2008). Moreover, learning in groups allows members to engage in critical reflection of the assumptions underlying actions in their organizations. When the group members produce ideas and questions, it will stimulate others to see the issues in a slightly different way or put the problem in a new context which will help them to remember (Taylor and Furnham, 2005).

Therefore, interaction between novices and experts is crucial importance in workplace learning to provide guidance and observe the ways of doing the job. Furthermore, learning process would be difficult without assistance from experienced and knowledgeable workers because employees commonly learn by working with their colleague (Tynjala, 2008). Moreover, individuals' often learn new knowledge in social situations because of having access to direct guidance by ex-

pert partner to enhance the scope of novice's learning trough joint problem solving and support (Van and Poell, 2010). An expert or called mentor is a common practice in industries whereas their roles are to transfer knowledge among group members in group learning. This practice reflects the belief that experienced workers possess valuable insights to share knowledge with others (Strom and Strom, 2011). However, group learning should be aligned with individual expectations what the members' needs to learn.

## 4 KNOWLEDGE SHARING

Knowledge Sharing refers to the communication of all types of knowledge, which includes explicit and tacit knowledge through socialization, interaction, and training. Hence, effective knowledge sharing involves the actions of transmission and absorption of the sender and receiver respectively. Therefore, organizations are risking to losing the money, time, and ability when they did not have knowledge sharing effectively (Jones, 2007). Thus, the goal of knowledge sharing is to acquire knowledge for knowledge using in daily work processes to improve the collaboration and relationships among workers and to enhance the accumulation of knowledge for employees and the organization as a whole (Lee and Yu, 2011). Furthermore, the purpose of knowledge sharing is to immense pool of experience to the next generation of workers because of knowledge can be lost through redundancy, retirement, resignation and even through promotion. Hence, the critical outcome of knowledge sharing is the creation of new knowledge that will significantly improve organizational performance (al-Hawamdeh, 2003).

Knowledge Sharing occurs between at least two parties through face to face communication such as workshop, forums, conferences and seminar (McAdam And Reid, 2000; Hendriks, 1999; Nonaka, 1994). Therefore, knowledge sharing occurs between at least two parties to possess knowledge and the other one acquires knowledge (Hendriks, 1999), which involves the actions of transmission and absorption by the sender and potential receiver respectively. However, there are facts that people are reluctant to share knowledge because of some workers are interested to share their knowledge, while some of them seem uninterested to share knowledge, mostly when their mistakes are not tolerated by organization (Teh and Sun, 2012; Hendriks, 1999). According to Martin (2005), diverse cultures, lack of trust, lack of time, ineffective communication and poor knowledge can prevent knowledge sharing from happening. Moreover, knowledge sharing cannot occur when the workers hold or hoarding their knowledge to keep their competitive competence (Liu, 2008).

### 4.1 Knowledge Sharing Process

Interactions among workers allow the exchange and creation of tacit knowledge. Tacit knowledge is in people's heads. Thus, it will express effectively through interacting and responding to new situations and problems. According to Huysman and Wit (2002), learning can be derived from the knowledge sharing cycle as in figure 1. Learning can occur through internalization and externalization processes. Internalization is the process of learning from organization and

takes place by acquiring organizational knowledge through the use of knowledge systems, training sessions, and manual (Huysman and Wit, 2002). According to Hendriks (1999), internalization presumes an act of those seeking to acquire knowledge through different forms, including learning by doing, reading books, or trying to understand the codified knowledge. However, internalization happens when explicit knowledge can be transferred into tacit knowledge (Nonaka et al., 2000). When explicit knowledge disseminates throughout an organization, it will convert into tacit knowledge by individuals.

During externalization, the knowledge sharing act by those who have the knowledge to take or performing an action based on his knowledge and explaining it in a lecture or codifying it to explicit knowledge (Hendriks, 1999). The knowledge externalization occurs through reusing existing knowledge and renewing or generating new knowledge (Huysman and Wit, 2002). Furthermore, adaptation of external knowledge occurs through reacting to information given or by learning from an experience. Therefore, externalization can take place via formal channels such as meetings and project groups and through informal channels such as conversations or personal interactions (Huysman and Wit, 2002). According to Nonaka et al. (2000), the tacit knowledge can be transferred into explicit knowledge through the externalization process. Furthermore, objectification takes place at a lower pace in a part of knowledge-sharing processes. This means, the knowledge exchanged does not mean that shared knowledge has collective accepted because shared knowledge only turns into organizational knowledge when it is accepted by the organization's members. Generating new knowledge involves a renewed learning process. However, reusing knowledge is a learning process with the purpose of adjusting and adapting knowledge.



Fig. 1: The knowledge sharing cycle (Huysman and Wit, 2002, p. 40)

## 4.2 Knowledge Sharing Factors

There are many studies regarding knowledge sharing factors and collectively, these studies have identified a number of factors that are believed to influence knowledge sharing behavior. The researchers acknowledge the factors that influence

knowledge sharing were through individual psychological, social, organizational cultural and technological factors (En, 2012; Eugene, 2010; Habeeba, 2010; Fong et al., 2011; Hislop, 2009). According to Liu (2008) and Henriks (1999), ICT gets more important as a prominent tool for facilitating knowledge sharing due to information technology improvement and knowledge transmission. This statement is supported by result of studies from previous researchers (En, 2011; Wu and Zhu, 2012; Hendriks, 1999; Eze et al., 2013; Chatzoglou and Vraimaki, 2009; Anitha, 2006; Habeeba, 2010; Yee, 2010; Seba et al., 2012; Salleh et al., 2012). Furthermore, technology plays an important role in knowledge management process as provide a database, organizing knowledge, and provide a mechanism for knowledge can be transferred (Hislop, 2009).

Although knowledge sharing gets more important due to the technology improvement and recognize as the most factor in facilitating knowledge sharing by researchers, however the human factors still the key success in knowledge sharing (Liu, 2008; Al-Hawamdeh, 2003). According to Chatzoglou and Vraimaki (2009) the most important determinant factor to influence knowledge sharing behavior is from an individual perspective. The results of studies by Wu and Zhu (2012) and Fathi et al. (2011) have strongly agreed that individual psychology has a positive effect towards knowledge sharing behaviour. For instance, the finding of several studies found that trust (En, 2011; Eze et al., 2013, Fathi et al., 2011), self-efficacy (Al-Qadhi, 2013; Zhang and Ng, 2012; Jolaee, 2012), attitude (En, 2011; Wu and Zhu, 2012; Zhang and Ng, 2012) and enjoyment (Wu and Zhu, 2012; Anitha, 2006) are critical success factors for knowledge sharing.

However, people might not give knowledge away without something in return. Moreover, employees are more motivated to share their knowledge with each other through incentive (Hsu and Wang, 2008). According to Hislop (2009), the main potential benefits of knowledge sharing are through reward or incentive, which it can be used as a tool to elicit, enhance and maintain the knowledge sharing behavior among employees (Fong et al., 2011). This significant with the result of studies by En (2011); Eze et al. (2013) and Fathi et al. (2011) which found that incentive or reward have a significant relationship with knowledge sharing. In contrast, the study by Wu and Zhu (2012); Zhang and Ng (2012); Anitha (2006) and Habeeba (2010) indicated that incentives did not have a significant effect towards knowledge sharing behavior. It seems, rewards only act as a trigger for knowledge sharing rather than as a sustaining force to form a person's attitude (Zhang and Ng, 2012)

In most conditions, organizational factors such as job involvement and job satisfaction (Teh and Sun, 2012; Eze et al., 2013), performance appraisal and recognition also serves as a motivator to enhance knowledge sharing behavior among employees (Hendriks, 1999; Fong et al., 2011). In addition, organizational culture (Wu and Zhu, 2012; Anitha, 2006; Terlokchand, 2010), top management support (Al-Qadhi, 2013; Yee, 2010) and organizational relationship (Lee and Yu, 2011; Fathi et al., 2011) influences knowledge sharing behaviour. Thus, SMEs need to understand the factors that are promoting and
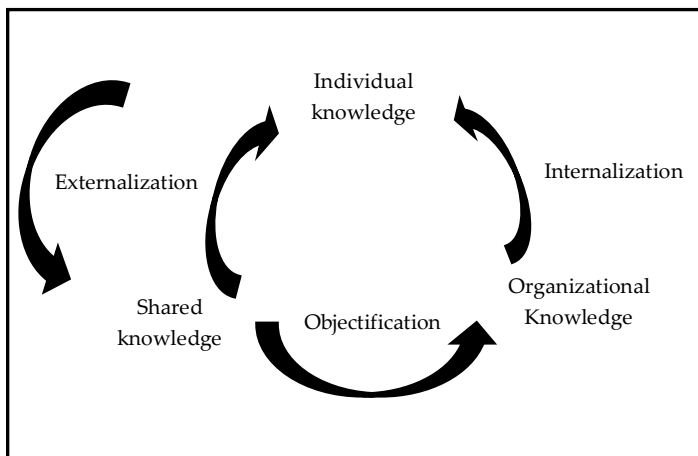
encouraging knowledge sharing behavior. Table 2 provides the summary of the key factors that influence knowledge sharing from previous studies.

TABLE 1
THE FACTORS THAT INFLUENCE KNOWLEDGE SHARING

| Factors | Author |
|---|---|
| Altruism | Al-Qadhi (2013), Papadopoulos et al.(2013), Eugene (2010) |
| Management Support | Al-Qadhi (2013) |
| Self-efficacy | Al-Qadhi (2013), Zhang and Ng (2012), Fathi et al (2011), Papadopoulos et al.(2013), Jolaee (2012), En (2011), Eugene (2010) |
| Reciprocity | Al-Qadhi (2013), En (2011), Wu and Zhu (2012), Anitha (2006), Eugene (2010) |
| Reward/Incentive | En (2011), Eze at al. (2013), Fathi et al. (2011), Hendriks (1999), Wu and Zhu (2012), Zhang and Ng (2012), Anitha (2006), Habeeba (2010), Jolaee (2012) |
| Trust | En (2011), Eze at al. (2013), Fathi et al. (2011), Habeeba (2010), Eugene (2010), Yee (2010), Park and Lee (2014), Jolaee (2012) |
| Fairness | En (2011), Anitha (2006), Yee (2010) |
| Collaboration | En (2011), Fathi et al. (2011), Habeeba (2010), Terlokchand (2010) |
| Task Independence | En (2011), Hendriks (1999), Park and Lee (2013) |
| ICT | En (2011), Wu and Zhu (2012), Hendriks (1999), Eze at al. (2013), Chatzoglou and Vraimaki (2009), Anitha (2006), Habeeba (2010), Yee (2010) |
| Job Satisfaction | Teh and Sun (2012) |
| Job Involvement | Teh and Sun (2012), Eze et al. (2013) |
| Organizational Commitment | Yee (2010), Teh and Sun (2012) |
| Organizational Relationship | Lee and Yu (2011), Fathi et al. (2011), Jolaee (2012), Habeeba (2010), Zhang and Ng (2012) |
| Enjoyment in Helping Others | Wu and Zhu (2012), Anitha (2006) |
| Organizational Climate | Wu and Zhu (2012), Anitha (2006), Terlokchand (2010) |
| Personal Expectation | Papadopoulos et al.(2013), Yee (2010) |

## 5  LEARNING AND KNOWLEDGE SHARING BEHAVIOR

Learning is the major process of human adaptation and occurs in all human settings from schools to the workplace, personal relationships and it encompasses all life-stages (Thorpe et al., 1993). Therefore, learning is built on and flows from experience because learning only can occur if the experience of the learner is engaged (Boud et al., 1993). According to the individual psychological theory, an individual behavior could be changed via learning interaction of an individual with his or her environment (Bornsheuer-Boswell et al., 2013). The behaviorism learning theory also opines that peoples' behavior changed when they are involved in stimuli and response from their environments (Ormrod, 1995). Thus, individual behaviors are affected by the degrees they contributed in learning and the result of learning will translate into observable or changed behavior (Cheramie and Simmering, 2010; Hergenhahn and Olson, 2008). What has already been learned, affecting how people act and think (Crossan et al., 1999). Since learning facilitates behavioral change, it will lead to enhanced knowledge sharing behavior. Hence, it is important to change individual behavior through learning in order to promote knowledge sharing (Zhang and Ng, 2012).

Learning in the workplace appears through social interactions amongst individuals, reflections and experience at the workplace (Raelin, 1998; Tynjala, 2008). Therefore, learning arises from complex contributions and negotiation between social and personal factors (Billet, 2008) and related to environments, experiences and reflections practice in organizations. Thus, knowledge sharing indirectly exists through learning activities among employees. According to Hendriks (1999), knowledge sharing act by those who have the knowledge to take or performing an action based on his knowledge and explaining it in a lecture or codifying it to explicit knowledge. For example, knowledge sharing will be exist when expert provides guidance and observe the ways of novices doing their job through workplace learning. Then, when knowledge exists in novices, it will enhance confidence in their ability and capability to achieve tasks and reach goals. According to previous studies, the people who have high self-efficacy should be more likely to perform a knowledge sharing behavior in future, than those with low degree of self-efficacy.

Therefore, learning is built on and flows from experience because learning only can occur if the experience of the learner is engaged (Boud et al., 1993). According to Chance (2014), learning is a change in behavior due to experience or changes in the environment. Thus, working with our experience is one of the keys to learning, whereas learners must recapture and re-evaluate their experience to turn it into learning (Boud et al., 1993). It means, changes in behavior are products of experience. Moreover, natural selection and learning are two forces that contribute to modify the behavior of the individual (Change, 2014). Learning cannot be seen but may be reflected in behaviour. Although learning does not always involve acquiring something, but it does always involve some sort of change (Chance, 2014). However, there are arguing that not all changes in behavior reflect to learning. Frieman (2002) indicated that some change in behavior because of other factors such as experience and motivation. This is because motivation is the psychological process to explain the activation and goal-directness of some behaviors (Frieman, 2002). Although motivation cannot be directly observed, but we can infer them from individual's behavior.

## 6  DISCUSSION AND CONCLUSION

Today, we cannot deny that knowledge is an important element to the SMEs efficiency and survival in knowledge-based economy. Thus, the firm that's integrated knowledge and

learning in their resources tend to achieve higher capabilities to success. Accordance to the foregoing review, learning in the workplace can be split into three levels of learning; individual, groups and organization. Hence, organizations should provide a variety of learning activities in the workplace, such as learning through practice, through work errors, learning projects, critical reflections through experiences, direct guidance from experience coworkers and the development of workplace curriculum. In order to create understanding how learning through work proceeds, it is necessary to determine how individuals elect to engage in work activities, and provided support and guidance to afford them (Billet, 2010). Thus, a broader understanding about learning will assist those responsible for organizing learning in the workplace and transforms work practices to increase performance.

The previous studies have strongly agreed that individual psychology has a positive effect towards knowledge sharing behavior. Hence, it is important to change individuals' behavior through learning in order to promote knowledge sharing (Zhang and Ng, 2012). Since individual behavior could be changed through learning, it can act as moderator in enhancing knowledge sharing behavior. Moreover, learning is the major process of human adaptation and occurs in all human settings from schools to the workplace, personal relationships and it encompasses all life-stages (Thorpe et al., 1993).

This paper provides the integration of learning in the knowledge sharing process by providing interrelated concepts between learning and knowledge sharing. The lack of explicit connection between learning and knowledge sharing that we note in literature, encountered the idea to other new concept. Previous research have been reviewed to make understanding on how learning and knowledge sharing can be integrated together to be a more meaningful concept for academia and organizations. The main contribution of this paper is to demonstrate the potential interrelationship between learning and knowledge sharing. Further, we have identified learning as a common theme to lead or promoting knowledge sharing behavior.

There are some practical implications of this paper. First, is the need to understand the complex relationship between learning and knowledge sharing. Second, a holistic approach is needed to incorporate both learning and knowledge sharing in order to create knowledge or retain knowledge successfully. Third, there is need to understand the critical elements of the learning process because they will contribute to appropriate knowledge in an organization. A little study provided empirical insights regarding an interrelation between learning and knowledge sharing. This indicated there is needed to propose an integrative model in future research. Furthermore, the clarifying of learning and knowledge sharing process will provide enough explanation to SMEs because normally SMEs have limited information about learning and knowledge sharing. Hopefully, the clarifications concept of learning and knowledge sharing will assist SMEs to create understanding how learning engaging in workplace activities and at the same time enhances knowledge sharing behavior.

## REFERENCES

[1] Al-Hawamdeh, S. (2003). Knowledge Management. *Cultivating Knowledge Professionals*. USA: Chandos Publishing

[2] Al-Qadhi, Y. H. A. (2013). Factors That Affect Knowledge Sharing Among Employees in Multinational Organization. Master Dissertation. Universiti Teknologi Malaysia

[3] Anitha, C. (2006). Determinants of Knowledge Sharing Behaviors: Developing and Testing an Integrated Theoretical Model. Phd dissertation. Arlington: The University of Texas

[4] Billet, S. (2010). Workplace Learning Frameworks. *International of Encyclopedia of Education. (3th Edi)*. 58-63.

[5] Billett, S. (2008). Learning Through Work: Exploring Instances of Relational Interdependencies. *International Journal of Educational Research, 47*(4), 232-240.

[6] Billett, S. and Choy, S. (2013). Learning Through Work: Emerging Perspectives and New Challenges. *Journal of Workplace Learning, 25*(4), 264-276.

[7] Bornsheuer-Boswell, J. N., Polonyi, M. M. and Watts, R. E. (2013), "Integrating Adlerian and Integrated Developmental Model Approaches to Supervision of Counseling Trainees". *Journal of Individual Psychology*. 69(4), 143-158.

[8] Boud, D., Cohen, R. and Walker, D. (1993). Introduction: Understanding Learning from Experience. In Boud, D., Cohen, R. and Walker, D. *Using experience for Learning* (pp. 1-17). Buckingham: Open University Press

[9] Chance, P. (2014). *Learning and Behavior*. 7th Ed. US: Wadsworth

[10] Chatzoglou, P. D. and Vraimaki, E. (2009). Knowledge-sharing Behaviour of Bank Employees in Greece. *Business Process Management Journal*. 15(2), 245-266.

[11] Cheramie, R. A. and Simmering, M. J. (2010). Improving individual learning for trainees with low conscientiousness. Journal of Managerial Psychology. 1 (25). 44-57.

[12] Crossan, M. M., Lane, H. W. and White, R. E. (1999). An Organizational Learning Framework: From Intuition to Institution. Academy of Management Review. 24(3). 522-537.

[13] Daudelin, M. W. (1996). Learning From Experience Through Reflection. *Organizational Dynamics*. 24(3), 36-48.

[14] Debowski, S. (2006). *Knowledge Management.* Australia: John Wiley and Sons

[15] En, L. S. (2011). Factors Influencing Knowledge Sharing Intention in Higher Education Institution. Master Dissertation. Universiti Teknologi Malaysia.

[16] Eugene, O. K. (2010). The Influence of Individual Factors on Knowledge Sharing. Master Dissertation. Universiti Teknologi Malaysia.

[17] Eze, U. C., Goh, G. G. G., Goh, C. Y. and Tan, T. L. (2013). Perspectives of SMEs on Knowledge Sharing. VINE, Vol. 43 (2), pp: 210 – 236.

[18] Fathi, N. M., Eze, U. C., & Goh, G. G. G. (2011). Key Determinants of Knowledge Sharing in an Electronics Manufacturing Firm in Malaysia. *Library Review, 60*(1), 53-67.

[19] Fong, C. Y., Ooi, K. B., Tan, B. I., Lee, V. H., and Chong, A. Y. L. (2011). HRM Practices and Knowledge Sharing: an empirical study. International Journal of manpower. 32 (55). 704-723.

[20] Frieman, J. (2002). Learning and Adaptive Behavior. US: Wadsworth

[21] Fry, H., Ketteridge, S. and Marshall, S. (2009). *A Handbook for Teaching dnd Learning in Higher Education. Enhancing Academic Practice.* 3th. Ed. New York: Routledge.

[22] Habeeba, F. (2010). Factors Associate With Knowledge Sharing Among Nurse in Maldives. Master Dissertation. Universiti Teknologi Malaysia.

[23] Hau, Y. S., Kim, B., Lee, H. and Kim, Y. (2013). The Effects of Individual Motivations and Social Capital on Employees' Tacit and Explicit Knowledge Sharing Intentions. *International Journal of Information Management*. 33(2). 356-366.

[24] Hendriks, P. (1999). Why Share Knowledge? The Influence of ICT on The Motivation For KS. *Knowledge and Process Management*. 6(2). 91-100.

[25] Hendry, C., Arthur, M. B., and Jones, A. M. (1995). *Strategy Through People. Adaptation and Learning in the Small-Medium Enterprise.* London: Routledge

[26] Hergenhahn, B. R. and Olson, M. H. (2008). *An Introduction to Theorist of Learning*. N.J: Prentice Hall

[27] Hislop D. (2009); *Knowledge Management in* Organizations. 2ⁿᵈ ed. New York: Oxford

[28] Huysman, M. and Wit, D. D. (2002). *Knowledge Sharing in Practice*. Netherlands: Kluwer Academic Publishers

[29] Jarvis, P. (2005). Towards a Philosophy of Human Learning. An Existentialist perspective. In Jarvis, P. and Parker, S. (Ed) *Human Learning. An Holistic Approach*. (p.p 2-15). London: Routledge.

[30] Jolaee, A. (2012). Factors That Affect KS Intention Among Academic Staff. Master Dissertation, Universiti Teknologi Malaysia, Skudai.

[31] Jones, C. R. (2007). Exploring The Practices of Knowledge Sharing Between Projects: an Investigation on The Dimensions of What, When, and How Knowledge is Shared. PHD Dissertation. Capella University

[32] Ju, T. L., Li, C. Y and Lee, T. S. (2006). A *Contingency Model for* Knowledge *Management Capability and Innovation. Industrial Management and Data System*. 106(6), 855-877.

[33] Lappia, J. H. (2011). Towards Design Guidelines For Work Related Learning Arrangements. *Journal of European Industrial Training, 35*(6), 573-588

[34] Law, C., & Ngai, E. (2008). An Empirical Study of The Effects of Knowledge Sharing and Learning Behaviors on Firm Performance. *Expert Systems with Applications, 34*(4), 2342-2349

[35] Lee, H. W. and Yu, C. F. (2011). Effect of Organizational Relationship Style on The Level of KS. *International Journal of Manpower*. 32(5). 677-686.

[36] Liu, C. C., (2008). The Relationship Between Machiavellianism and Knowledge Sharing Willingness. *The Journal of Business and Psychology*. 22(3). 233-240.

[37] Loogma, K. (2004). Learning at Work and Competence: Different Contexts and Meanings in the Case of Transition Economy. *Journal of European Industrial Training*. 28 (7). 574-586.

[38] Martin, V. A., (2005). Cultivating Knowledge Sharing Through The Relationship Management Maturity Model. *The Learning Organization*. 12(4). 340-354.

[39] Matzler, K. and Mueller, J. (2011). Antecedents of Knowledge Sharing – Examining the influence of learning and performance orientation. *Journal of Economic Psychology*. 32. 317-329.

[40] Matzler, K., Renzl, B., Muller, J., Herting, S. and Mooradian, T. A. Personality Traits and Knowledge Sharing. *Journal of Economic Psychology*. 29(2008). 301-313

[41] McAdam, R. and Reid, R. (2000). A Comparison of Public and Private Sector Perceptions and Use of Knowledge Management. *Journal of European Industrial Training*. 317-329.

[42] Memon, M. A. (2013). The Influence of Personality Traits on Knowledge Sharing in the Context of Research Supervision. Master Dissertation. Universiti Teknologi Malaysia.

[43] Mezirow, J. (1990) How Critical Reflection Triggers Transformative Learning. In: Jack Mezirow and Associates. *Fostering Critical Reflection in Adulthood. A Guide to Transformative and Emancipatory Learning.* San Francisco: Jossey-Bass Publishers

[44] Miller, P. C. (2005). The Role of Knowledge Creation in Competitive Advantage. In Montani, B. *Innovations of Knowledge Management* (pp. 285-299). London: IRM Press

[45] Nonaka, I. (1994). A Dynamic Theory of Organizational Knowledge Creation. *Organizational Science*. 5 (1), 14-37.

[46] Nonaka, I., Toyama, R. and Konno, N. (2000). SECI, Ba and Leadership: A Unified Model of Dynamic KM. *Long Range Planning*. 33, 5-34.

[47] Ormrod, J.E. (1995). *Educational Psychology. Principles and Applications.* Eaglewood Cliffs, NJ: Prentice Hall.

[48] Park, J. G. & Lee, J. (2014). Knowledge Sharing in Information Systems Development Projects: Explicating the Role of Dependence and Trust. *International Journal of Project Management, 32*(1), 153-165

[49] Pasher, E. and Ronen, T. (2011). *The Complete Guide to Knowledge Management. A Strategic Plan to Leverage Your Company's Intellectual Capital.* US: John Wiley and Sons

[50] Raelin, J.A. (1998). Work-based Learning in Practice. *Journal of Workplace Learning*. 10 (6/7). 280-283.

[51] Salleh, K., Chong, S. C., Syed Ahmad, S. N., and Syed Ikhsan, S. O. S. (2012). Learning and Knowledge Transfer Performance Among Public Sector Accountants: An Empirical Survey. *Knowledge Management Research & Practice, 10*(2), 164-174.

[52] Seba, I., Rowley, J. and Lambert, S. (2012). Factors Affecting Attitudes and Intentions towards Knowledge Sharing in the Dubai Police Force. *International Journal of Information Management*. 32 (2012). 372–380.

[53] Strom, P and Strom, R. (2011). *Adult Learning and Relationships.* US: Information Age Publishing.

[54] Taylor, J. and Furnham, A. (2005). *Learning at Work. Excellent Practice From Best Theory.* New York: Palgrave Macmillan

[55] Teh, P. L. and Sun, H., (2012). Knowledge Sharing, Job Attitudes and Organisational Citizenship Behaviour. *Industrial Management and Data Systems*. 112(1). 64-82.

[56] Terlokchand, A. K. (2010). The Relationship between Cultural Factors and Knowledge Sharing in Kulim Microprocessor Organization. Master Dissertation. Universiti Teknologi Malaysia.

[57] Thorpe, M., Edwards, R. and Hanson, A. (1993). Culture and process of adult learning. London- Routledge

[58] Torstein N. T. and Gressgård, L. J. (2014). Knowledge Sharing in a Complex Organization: Antecedents and Safety Effects. *Safety Science*. 62 (2014). 28-36.

[59] Tynjala, P. (2008). Perspectives into Learning at the Workplace. *Educational Research Review*. 3(2008). 130-154.

[60] Van, W. M. and Poell, R.F. (2010). *Workplace Learning: Concepts, Measurement and Application*. London: Routledge

[61] Wong, K. Y. and Aspinwall, E. (2004). Characterizing Knowledge Management in the Small Business Environment. *Journal of KM*. 8(3), 44-61.

[62] Wu, Y. and Zhu, W. (2012). An Integrated Theoretical Model for Determinants of Knowledge Sharing Behaviours. Kybernetes. 41 (10). 1462-1482.

[63] Yan, T. S. (2010). *A Study of Knowledge Sharing in Marubun/Arrow Sdn. Pte. Ltd. Master Dissertation*. Universiti Teknologi Malaysia.

[64] Yee, N. Y. (2010). *Knowledge Sharing Factors on Knowledge Sharing Behavior among Employee in Construction Industry*. Master Dissertation.

Universiti Teknologi Malaysia.

[65] Zhang, P. and Ng, F. F. (2012). Attitude Toward Knowledge Sharing in Construction Teams. *Management and Data Systems*. 112(9). 1326-1347.