Abstract

Purpose – This paper aims to propose a conceptual model for understanding the influence of change readiness on knowledge management processes and knowledge management effectiveness. It is suggested that change readiness should be assessed as a multidimensional construct consisting of psychological and structural facets. Furthermore, as the process of managing organizational knowledge requires interaction among members of the organization, a holistic view of readiness at individual and organizational levels is presented.

Design/methodology/approach – A comprehensive literature review results in the development of the conceptual model that depicts potential relationships between change readiness and knowledge management processes. It also postulates the effects of different knowledge management processes on effective knowledge management implementation.

Findings – Potential implications of change readiness from both psychological and structural dimensions for knowledge acquisition, creation and sharing processes are put forward. Further, it offers possible fruitful areas for continuous research of knowledge management effectiveness from a change perspective.

Research limitations/implications – This article puts forward a number of potential relationships among the construct that are empirically testable to further understanding of multidimensional change readiness influences on the various types of knowledge management processes and its effective implementation.

Practical implications – Through a conceptualisation of the relationships between change readiness, knowledge management processes and knowledge management effectiveness, this paper offers a number of practical guidelines for the development of knowledge management policy and a road map from a change management perspective.

Originality/value – Previous literature on knowledge management focuses on understanding organizational readiness to promote successful knowledge management implementation in terms of the structural dimension. This paper proposes understanding of change readiness from a more comprehensive perspective comprising both psychological and structural readiness and its influences on knowledge management processes, which could affect overall effectiveness of knowledge management implementation.

Keywords Knowledge management, Change management, Change readiness, Knowledge management effectiveness, Knowledge management processes

1. Introduction

Although many organizations have taken steps to invest in knowledge management (KM) initiatives, an increasing rate of KM failures are reported (Chua, 2009; Lucier and Torsilieri, 1997; Storey and Barnett, 2000). Substantial investment in technology and infrastructure does not always guarantee successful KM; rather, it is claimed that the main pillar of achievement rests on employees’ willingness and commitment to participate in the initiatives (Lin, 2011; Wasko and Faraj, 2005).
Knowledge can be defined as justified true beliefs (Nonaka, 1994), and can reside in individuals as well as collectively in the organization. During the process of implementing new knowledge, individuals' and the organization's beliefs systems would undergo some changes that require shifts in individuals' thinking and behavior. The process could involve double loop learning where employees might query and change the underlying organizational norms and assumptions (Sun and Scott, 2003). Often this results in significant changes in organizational procedures, responsibilities and norms (Chen, 2008; Davenport and Prusak, 1998; Holt et al., 2007a, b; Wig, 1993). For double-loop change to be successful the consideration of change management is required (Bhatt, 2001; Damodaran and Olphert, 2000; Holsapple and Joshi, 2000; Sunassee and Sewry, 2002).

Oakland and Tanner (2007) propose two important change cycles in the Organizational Change Framework: change readiness and change implementation. While many studies focus on change implementation in KM, this paper proposes that assessing change readiness is also crucial to ensure that employees are prepared for changes during KM implementation. Nevertheless, the change readiness construct has been neglected in previous KM studies. A thorough assessment of the contribution made by change readiness towards effective KM could provide further explanation of the underlying reasons for KM failures.

First, a comprehensive concept of change readiness as a multidimensional and multilevel construct is introduced. Second, a conceptual model depicting the linkages between change readiness, knowledge management processes and knowledge management effectiveness, is proposed. The paper then provides further elaboration on the multidimensional and multilevel characteristics of change readiness and knowledge management processes. This is followed by discussions of the implications of change readiness for distinctive processes of acquiring, creating and sharing knowledge. The paper then concludes by suggesting possible implications of change readiness for KM and describing potential future research in the area.

2. Understanding the change readiness concept

Change processes involve three phases: preparation for change, adoption of change and institutionalization of change by embedding new modifications into the organizational norms (Armenakis and Bedeian, 1999; Lewin, 1947). In order to enhance employees' acceptance of change, readiness must be created from the initial preparation stage. According to Dalton and Gottlieb (2003), readiness consists of both state and process. The readiness state is influenced by the beliefs that proposed change is needed, significant and sufficiently supported by the environment in which it will take place. As a process, readiness involves recognizing a need for change, comparing the costs and benefits of change and planning for the change.

Although there is considerable research on change readiness, there is little consistency in defining and conceptualizing the term. This is largely due to its abstract nature, which has resulted in various definitions (Fowler, 1998; Walinga, 2008; Weiner et al., 2008). In addition, little empirical research has focused on this construct to better understand its influence on successful organizational change.

The literature indicates that readiness for change in organizations occurs at two distinctive levels: the personal and the organizational. Personal change readiness elements encompass motivation, competence and personality attributes (Armenakis and Harris, 2002; Armenakis et al., 2007; Holt et al., 2007a, b; Holt et al., 2009; Kwaik and Lee, 2008; Lehman et al., 2002; Oliver and Demiris, 2004; Weiner, 2009). On the other hand, organizational-based elements include institutional resources, culture, climate, financial resources and technology utilization (Chwelos et al., 2001; Guha et al., 1997; Holt et al., 2007a, b; Holt et al., 2009; Lehman et al., 2002; Siemieniuch and Sinclair, 2004; Taylor and Wright, 2004; Weeks et al., 2004; Wu, 2004; Weiner, 2009).

As a multilevel construct, the comprehensive assessment of change readiness should incorporate analysis at both the individual and the organizational levels (Weiner, 2009). At
the individual level, personal beliefs and behaviors play a vital role in organizational change, thus requiring an understanding of the cognitive and emotional processes that occur during the change (Moffett et al., 2002; Walinga, 2008). These individual beliefs and behaviors must also be effectively aligned to, and supported by, organizational structure, climate and culture to enable successful change implementation (Armenakis et al., 2007; Luo et al., 2006). For this reason, readiness is created through nurturing the willingness and ability of individuals in the organization to move into a new state resulting from the change event, and is supported by the appropriate conditions in the organization to enhance readiness for the change.

Further, extending its complexity as a multilevel construct, readiness for change is also a multidimensional construct. An individual’s willingness to change could result from his or her cognition about the need, appropriateness and benefits of change that mold the beliefs for the change (Armenakis et al., 1993; Eby et al., 2000; Jones et al., 2005; Rafferty and Simons, 2006; Weeks et al., 2004). As these beliefs grow in an individual, whose effort might be dependent on others, the willingness to change could also be influenced by co-workers’ actions. Hence, besides evolving at the individual level, the beliefs about change should also be seen as collective attitudes or intentions of the organization’s members. Moreover, capability to change depends on the individuals’, as well as the organizations’, ability to carry out the changes. This capability includes sufficient financial, human and information resources to craft members’ readiness for pursuing new ideas or programs. It also represents the conditions within the organization and its members as they embark on the change.

Unfortunately, previous literature tends to discuss only a fraction of these change readiness aspects and fails to provide a comprehensive representation of the construct. Holt et al. (2009) proposes a heuristic classification for the construct. Accordingly, the willingness aspect, representing the state of members’ attitudes, beliefs and intentions for the proposed change is classified as the psychological dimension of change readiness (Holt et al., 2009; Weiner, 2009). Moreover, Holt et al. (2009) and Weiner (2009) propose a second dimension of change readiness: a structural dimension. This dimension represents “the circumstances under which the change is occurring and the extent to which these circumstances enhance or inhibit the implementation of change” (Holt et al., 2009, p. 51). Some proposed elements of the structural dimension include individual knowledge, skills and abilities, as well as the tangible and intangible support climate and facilitation strategies. This paper discusses the multidimensional characteristics of change readiness construct, as suggested by Holt et al. (2009), and proposes a conceptual model for understanding change readiness and its impact on KM processes and effectiveness.

3. Conceptual model for examining change readiness, knowledge management processes and knowledge management effectiveness

Figure 1 depicts the conceptual model developed here to analyze the effects of change readiness on knowledge management processes and effectiveness. Organizational change and knowledge management literature form the basis for the development of this model. From a social psychology perspective, field theory by Lewin (1951) addresses personal beliefs about the changes and individual’s field perception, which is the function of the social environment including the fact that the group to which the person belongs shapes the individual’s reaction towards the proposed changes. Consistent with Cunningham et al. (2002) and Lehman et al. (2002), readiness for change construct could be best predicted through a comprehensive assessment of its multidimensional and multilevel characteristics.

The construct consists of psychological and structural dimensions that have complementary roles in the creation of change readiness. Accordingly, the model proposes multidimensional analysis of the construct, encompassing cognitive elements of the psychological dimension and conditions of the structural dimension. Concurrently, the model also suggests multilevel analysis of the change readiness construct at individual and organizational levels in the context of KM implementation.
Holt et al. (2007a, b) define the psychological dimension of change readiness as beliefs about the need for change, reason for change and benefits of change initiatives that shape individuals' insights regarding the changes. Further, as mentioned earlier, the values that exist in the organization such as peer influence could also affect the individual beliefs. Many authors (e.g. Armenakis and Harris, 2002; Armenakis et al., 2007; Holt et al., 2009; Oakland and Tanner, 2007) have examined the importance of psychological readiness for change implementation, and the results have shown that psychological readiness has a significant influence in determining change success.

Further to that, the structural dimension of change readiness represents the condition and context in which change is occurring. Again, since change readiness is a multilevel construct, the model proposes that the assessment of change readiness from the structural perspective should incorporate both aspects of the individual's ability to cope with changes and organizational capacity to provide supporting context for changes to occur (Holt et al., 2009). Moreover, from the social psychology perspective, Mansfield (1984) asserts that structure potentially acts as an essential factor that produces the psychological environment, which inevitably affects individuals' and groups' actions and attitudes in any organization. This conceptual model highlights the notion that both psychological and structural elements of change readiness are crucial for KM implementation.

As shown in Figure 1, the model posits that the psychological and structural dimensions of change readiness affect knowledge management processes. Previous studies have argued that KM implementation requires changes in organizational philosophy as it forces an organization to redefine its beliefs system, conventional work flow, power structures and technology utilization (Bhatt, 2001; Glazer, 1998; McKenzie et al., 2001). In conjunction with that indication, the implementation of knowledge management processes could alter the existing systems and procedures that apply in the organization. Alterations to these procedures could affect the employees psychologically and behaviorally, particularly in the situation where employees are contented with the existing system. Consequently, it is essential for management to ensure employees are ready to accept the changes by assessing employees’ beliefs on the importance of carrying out change initiatives in KM processes and providing necessary conditions to support KM implementation.

Moreover, the model also depicts the linkages between KM processes and KM effectiveness. Knowledge-based theory of the firm views an organization as a knowledge-creating entity with knowledge representing the main source for the organization’s survival. Therefore, from this perspective, the ability to manage knowledge effectively through the processes of creating and utilizing (Nonaka et al., 2000a, b) as well as gathering, storing and disseminating it (Bhasin, 2006) is vital to sustain the organization’s competitive edge. Consistent with Darroch (2005) and Nelson and Winter (1982), the extent
to which these processes are implemented in the form of organizational routines and coordinating mechanisms will determine the organization's long term survival.

Previous studies which adopted an organizational capability perspective emphasize that knowledge process capability represents one of the fundamental aspects that contribute towards organizational KM effectiveness (Aujirapongpan et al., 2010; Gosh and Scott, 2007; Liao and Wu, 2010; Lindsey, 2002; Zaim et al., 2007). In other words, the insight suggests that the ability to manage knowledge processes for the creation of new knowledge and dissemination of existing knowledge for instance, will determine KM effectiveness (Eftekharzadeh and Tobin, 2008). Nevertheless, implementing KM processes does not always result in effective KM; instead, as proposed by Becerra-Fernandez and Sabherwal (2010), effectiveness in the KM context depicts the implementation of the most appropriate processes and the formulation of the best possible decisions with regards to the process of managing knowledge. Therefore, these decisions and the scope to which KM processes are implemented and integrated in organizational routines represent KM effectiveness in this study context.

The above discussion links change readiness and knowledge management processes, and the three manifestations of knowledge processes with knowledge management effectiveness. Implicitly, the discussion also proposes that change readiness impacts knowledge management effectiveness through its effects on various knowledge management processes.

4. Multidimensional characteristics of change readiness

4.1 Psychological dimension of change readiness

Armenakis and Harris (2002) and Armenakis et al. (2007), by integrating innovation diffusion and organizational change argued the importance of individual beliefs in successful organizational change. According to them, change implementation involving organizational strategy, structure or system, is similar to the adoption of managerial or technological innovation, which requires the shift in behaviors of the change recipients.

In their study, Armenakis and Harris (2002) introduce five change message components representing the psychological dimension of change readiness at the individual level. These five message components are: discrepancy, change appropriateness, change efficacy, principal support, and change valence. Two prominent studies that formed the basis for the development of these change message components were done by Ryan and Gross (1943) and Coch and French (1948). Ryan and Gross (1943) study of hybrid seed corn innovation diffusion among farmers found that principal support, efficacy and valence shaped the beliefs in diffusing the innovation. Further, Coch and French's (1948) study from the organizational change literature strengthens Ryan and Gross’ (1943) findings and proposes additional elements of beliefs, consisting of discrepancy and appropriateness underlying readiness for organizational change.

The above mentioned change message components are considered salient elements that trigger the creation of the individual’s precursor, which potentially influence the decision and reaction towards the proposed change (Armenakis et al., 2007). The conveyance of these change message components to the change recipients represents one of the strategies to promote assenting reactions and behaviors in embracing the changes. These five components are elaborated below.

Discrepancy highlights the gap between current organizational performance or goals and the desired performance (Armenakis and Harris, 2002; Pettigrew, 1987; Walinga, 2008). As employees become aware of the organizational discrepancy, their beliefs about the necessary changes for improvement might grow, thus resulting in a higher tendency to carry out the changes.

The discrepancy must be addressed through the identification of necessary and feasible actions to overcome the existing weaknesses. It is important for organizations to propose a convincing change action that is able to eliminate the discrepancy and enhance the
employees' beliefs to act upon the suggested change. The beliefs that a proposed change is essential for implementation in order to overcome the discrepancy is identified by Armenakis et al. (2007) as change appropriateness.

Also, employees' beliefs in their ability to cope with and participate in a particular change initiative are important. This capability of handling changing circumstances is known as change efficacy. Previous studies have shown that employees are more receptive to change if they are confident in their capability to manage diverse outcomes from the changes (Armenakis et al., 2007; Bandura, 1986; Wanberg and Banas, 2000).

Likewise, employees' beliefs about the presence of adequate support from superiors and peers (i.e. principal support) represent another crucial consideration for creating readiness towards change. The positive relationships between readiness and peer support, as well as leaders' commitment and individuals' readiness to cope with the changes, support the notion that principal support at the workplace could psychologically influence readiness to embark on the proposed change (Abdolvand et al., 2008; Holt et al., 2007a, b; Shaw et al., 1993; Wanberg and Banas, 2000).

Moreover, employees' understanding of the potential valences from the changes (i.e. change valence) could stimulate their readiness for change (Armenakis et al., 2007; Holt et al., 2007a, b; Jones et al., 2005; Malhotra and Galletta, 2003; Miller et al., 1994). The assessment of change valence should be broad enough to encompass intrinsic and extrinsic valences. This is necessary to convince employees about the positive implications of the change outcomes in the long run. Extrinsic valence consists of incentives for participating in change initiatives, while intrinsic valence includes satisfaction and autonomy in making decisions (Armenakis et al., 2007). Although extrinsic valence, such as monetary incentives, has received more attention in previous studies, there is less attention in the literature on implicit valence such as the impact of management and peer recognition on the individuals' readiness for change.

At the organizational level, the psychological dimension of change readiness is based on the shared beliefs and feelings among organizational members. For instance, Eby et al. (2000) propose that the ability of co-workers to advocate change initiatives influences the creation of readiness among employees. Literature suggests two important elements underlying change readiness at the organizational level: collective commitment and collective efficacy (Holt et al., 2009). The existence of these elements is crucial to enhance employees' confidence for undertaking change initiatives.

Collective commitment refers to the organizational members' shared determination to implement change initiatives (Holt et al., 2009; Weiner, 2009). This commitment entails employees' feeling about group capabilities to perform new or revised processes and tasks. It has a similar role as a group norm for explaining the relationship between intentions and change behavior, whereby individuals' change behavior could be influenced by their observations of the group members' behavior. Consequently, individuals commonly seek to act in a manner similar to the group members as they consider change initiatives (Herscovitch and Meyer, 2002; Holt et al., 2007a, b; Jimmieson et al., 2008).

Collective efficacy reflects the extent to which organizational members are confident that they can perform well, based on their shared capabilities, despite the proposed change (Holt et al., 2009; Weiner, 2009). Challenges arising from the changing conditions in organizations affect not only individual employees but also team effort. In order to overcome the challenges, shared and sustainable effort among the organization's members is essential to produce a positive change outcome. This reflects the concept of collective efficacy as shared beliefs of mutual ability among the teams to cope with obstacles in achieving a common goal (Bandura, 1986). In relation to that, previous studies claimed that the existence of a shared sense of confidence among co-workers leads to higher change efficacy and motivates employees to sustain their efforts towards achieving change objectives (Bandura, 1986; Jung and Sosik, 2002; Weiner, 2009).
In conclusion, the creation of beliefs for change from the psychological dimension is crucial to trigger the individual’s desire for supporting change. This is also shaped by the collective beliefs among the organization’s members.

4.2 Structural dimension of change readiness

At the individual level, the structural dimension of change readiness refers to the capability of the organization’s members to cope with changes arising from the implementation of new or modified practices (Lehman et al., 2002; Holt et al., 2009). Employees’ characteristics need to be accounted for in assessing change readiness in order to ensure employees are receptive to change. Diverse employee qualities and characteristics that shape competency to cope with the changes are discussed in the literature (Eby et al., 2000; Wanberg and Banas, 2000).

Innovativeness and adaptability are also included at the individual level. Individuals’ innovativeness portrays the extent of employees’ creativity for dealing with organizational challenges arising from the change (Holt et al., 2007a, b; Hurt et al., 1977). Innovative employees are regarded as being more receptive to new ideas, and are therefore expected to demonstrate higher readiness to cooperate in change initiatives. The same expectation is also placed on any individual who is more adaptable to change. An individual with the ability to cope with changing conditions is believed to be more receptive to trying new ideas and learning new procedures (Lehman et al., 2002).

Furthermore, the ability to influence co-workers in buying into the idea of change is another change readiness indicator at the individual level. This attribute, commonly held by opinion leaders or change agents (Lehman et al., 2002), could make the person more interested in change, thus possessing higher willingness to participate in the change initiatives.

Additionally, professional growth measures the extent to which an individual values and perceives opportunity for professional development. Lehman et al. (2002) asserted that limited opportunities for professional growth are likely to be associated with less readiness for change. This assumes that change initiatives that are perceived to contribute positively to employees’ professional growth would create higher readiness among employees to participate in the initiative.

Apart from individual capabilities, a successful change initiative also relies on organizational conditions that provide the context for change processes to be implemented successfully (Armenakis et al., 2007). Previous literature reveals a large number of organizational factors that facilitate the creation of change readiness, such as organizational climate and strategies (Eby et al., 2000; Holt et al., 2009; Lehman et al., 2002). Based on the review of the organizational change and knowledge management literature, the paper proposes four structural indicators of change readiness that are relevant for the study.

Firstly, communication is widely recognized as an important mechanism for change readiness (Abdolvand et al., 2008; Guha et al., 1997). Moreover, communication is an essential element that influences individuals in making decisions regarding the implementation of new idea (Rogers, 2003). Communication reflects the extent to which employees feel that management is receptive to employees’ ideas and to which employees receive necessary information regarding the change initiatives (Helfrich et al., 2009; Lehman et al., 2002; Holt et al., 2007a, b). This notion suggests that clear articulation of change ideas could increase employees’ understanding, thus motivating them to be more ready for change.

Secondly, participation refers to the extent to which employees are given opportunity to contribute to the change initiative (Holt et al., 2007; Wanberg and Banas, 2000). Employees might perceive that they are important to the organization if they are involved in decisions related to the changing of procedures or processes that will affect their jobs. Hence, the opportunity to clarify the purposes and reasons for change would make them more convinced about the changes, and thus they would be expected to be more ready to accept them.
Next, learning created through various forms of training and development is expected to trigger higher change readiness. An organizational climate that is supportive of learning enables proliferation of new knowledge in the organization (Lee and Choi, 2003). Thus, consistent with Huber (1991), it is proposed that employees develop understanding about the changes through learning, which could then result in behavioral changes among the organization’s members.

Moreover, clarity of vision is another element that could stimulate employees’ readiness for change. Clearly linking the change initiative to the vision could enhance employees’ involvement in and contribution to the implementation of change initiatives (Davenport et al., 1996; Gold et al., 2001; Nonaka and Takeuchi, 1995). In contrast, scholars assert that a lack of goal clarity, which fails to address compelling reasons and rationales for change initiatives, results in a low readiness for change (Kotter, 1996; Lehman et al., 2002).

Hence, change readiness from the psychological dimension represents the individual’s willingness to embark on organizational change initiatives, triggered by the beliefs that the proposed change is necessary to overcome the identified discrepancy; is suitable and sensible to be implemented with essential support and capability to embrace the changes. On the other hand, the structural dimension focuses mainly on the organization’s capability to provide necessary resources and the availability of employees with characteristics that are competent to support the accomplishment of change initiatives.

While many studies have examined organizational readiness, little emphasis has been placed on the assessment of employees’ change readiness. Additionally, there is a dearth of empirical research that examines the influence of readiness from a psychological perspective (Konrad, 2008). In this paper, the authors place change readiness as the extent to which the organization and its members are prepared, based on psychological and structural influences, to embrace changes resulting from the implementation of KM initiatives. Due to the complexity of the KM processes, there is a need to comprehensively assess the influence of change readiness on the various processes of managing organizational knowledge from both the psychological and the structural dimensions.

5. Knowledge management processes

Penrose (1959) asserted that while knowledge could be viewed as an organizational resource based on employees’ skills and experiences, the way it is managed and used will determine its advantages to the organization. Further, Choo and Neto (2010) claim that KM is particularly concerned with the process of managing the context and providing the conditions under which knowledge could be created, shared, and utilized for the attainment of organizational goals. Since the main aim of KM is to ensure that existing and new knowledge is handled systematically through structured processes or activities, organizations practicing KM need to participate in the process of managing knowledge (Heiseg, 2009; Supyuenyong et al., 2009).

Diverse processes or activities for managing knowledge have been widely discussed in the literature. For instance, in the analysis of 117 KM frameworks, Heiseg (2009) found that 166 different terms are used to describe KM activities and processes. Nevertheless, based on further classification, five central activities of managing knowledge can be identified: identification, creation, sharing, utilization and storage.

This article focuses on the examination of change readiness in influencing the ways knowledge is generated, made available, and applied in the organization. The identification of new knowledge is part of an acquisition process that involves the recognition of valuable knowledge for organizations. In addition, Sun (2010) suggests that knowledge utilization and sharing could be combined since the value of knowledge utilized by individuals will enhance only if it is being shared as part of organizational justified beliefs. Therefore, KM processes in this study refer to the three prominent activities of knowledge acquisition, knowledge creation and knowledge sharing, as discussed next. These processes are conceptualized in terms of KM behaviors and practices embedded in organizational routines and operations.
5.1 Process of knowledge acquisition

Knowledge acquisition involves the process of identification, discovery and accumulation of knowledge in order to obtain new knowledge and recognize existing knowledge (Darroch, 2003, 2005; Gold et al., 2001; Liao et al., 2010; Lindsey, 2002). With the aim to capture knowledge from internal and external sources, an acquisition process is commonly performed through searching and learning mechanisms. Searching includes formal and informal interactions among employees, monitoring of best practices in the industry as well as observing competitors’ approaches; while learning consists of employee training and continuous education, imitation of best practices or self directed learning through lessons learned (Jantunen, 2005; Liu and Liu, 2008; Reio and Wiswell, 2000). Through these mechanisms, an organization is able to identify means to improve the use of existing knowledge and exploit newly acquired knowledge, hence continuously developing its robust knowledge base for competitive benefits.

5.2 Process of knowledge creation

Takeuchi and Nonaka (2004) defined knowledge creation as “a process that organizationally amplifies the knowledge created by individuals and crystallises it as part of the organization knowledge network” (p. 51). In other words, it represents a process of transforming an individual’s justified beliefs to a higher level to form an organization’s beliefs system, which enhances the value of the individual- possessed knowledge (Sun, 2010).

According to the theory of organizational knowledge creation (Nonaka and Takeuchi, 1995), the process of managing knowledge is based on epistemological and ontological dimensions. Epistemologically, knowledge is classified as tacit and explicit knowledge. The ontological dimension is concerned with the levels of entity creating the knowledge, known as knowledge units. These units include the individual, group, organization and inter-organization.

New knowledge is claimed to emerge during the interaction among the knowledge units through four processes: socialization, externalization, combination and internalization (Nonaka and Konno, 1998; Nonaka and Takeuchi, 1995). Socialization is the process by which one’s tacit knowledge becomes the tacit knowledge of another person. Since tacit knowledge is hard to articulate, it is commonly passed on through on-the-job training, observing, imitating and experiencing similar situations or actions. Externalization refers to the process of converting tacit knowledge into an explicit concept, which enhances the understanding of ambiguous personal and professional knowledge. During externalization, abstract knowledge is conceptualized into an explicit form using modeling, analogy, posited relationship or even action to increase the knowledge learner’s understanding. Combination represents the process of coalescing explicit knowledge from the different sources using information and communication tools with the aim of creating a greater explicit knowledge pool. Finally, internalization embodies the process of absorbing knowledge that has been made explicit during externalization. The process resembles learning by doing, by which the learner is able to make tacit the newly acquired explicit knowledge (Hussi, 2004).

From the authors’ point-of-view, socialization involves the activities of obtaining new tacit knowledge from the knowledge possessor, which has similarities to acquisition. Likewise, combination relates to the mechanisms of sharing knowledge. Therefore, attention is drawn to two vital creation processes that produce new knowledge or modify existing knowledge: externalization and internalization.

As a final point, the knowledge creation process is also context-specific and dynamic. The individual creates knowledge and the organization provides the context for the process (Choo and Neto, 2010; Liu and Liu, 2008). For this reason, the process of creating knowledge requires both individual and organizational considerations.

5.3 Process of knowledge sharing

In order to realize the value of knowledge, knowledge that is acquired and created by organizations needs to be continuously and effectively applied, utilized and disseminated
throughout the organization. Dissemination involves the behavior of the learner sharing acquired knowledge, expertise and skills with other members of the organization, which occurs in interactions at individual, group and organizational levels (Bock et al., 2005; Liao et al., 2010; Lin and Lee, 2006; Ryu et al., 2003; Yi, 2009). The utilization of shared knowledge is necessary to support decisions, actions and problem solving, which in turn improves organizational efficiency and the firm’s innovation performance (Gold et al., 2001; Goldoni and Oliviera, 2006; Lin, 2007).

In conclusion, KM encompasses the different activities of acquisition, creation and utilization of appropriate knowledge for organizational benefits. Further, effective implementation of these KM processes often requires changes in procedures and routines in the organization, and hence could be influenced by diverse change-related factors.

6. Implications of change readiness for knowledge management processes

Readiness has been studied previously to understand its influence on different stages of change implementation such as intention, acceptance and adoption of new information systems such as internet, web services, electronic resource planning (ERP), electronic commerce and electronic data interchange (EDI) systems (Abdinnour-Helm et al., 2003; Chan and Ngai, 2007; Chwelos et al., 2001; Kwahk and Lee, 2008; Wu, 2004; Luo et al., 2006). The construct has also been studied in relation to mergers, business process change, technology transfer and KM commitment (Guha et al., 1997; Holt et al., 2007a, b; Lehman et al., 2002). In most studies, readiness has a positive effect and significant influence on change success.

Although some studies in KM assess organizational readiness in relation to KM implementation, there is a lack of studies examining the elements of individual readiness. For instance, Siemieniuch and Sinclair (2004) developed a framework to address organizational readiness in knowledge lifecycle implementation. In another study, Chen (2008) found that organizational readiness, assessed based on attitudes toward change, is positively correlated to the process of knowledge creation, expansion and storage. These studies, however, do not address readiness among individuals or the psychological dimension.

Holt et al. (2007a, b) developed a model that identifies four important constructs of readiness for KM. They encompass individual determinants, change context, change content and change process in the assessment of KM attitudes. The results show that individual and change context constructs are important in predicting attitude towards KM. The study serves as a start for the assessment of change readiness in the context of KM. Nevertheless, further insights regarding underlying influences of change readiness on the various KM processes are essential (Holt et al., 2007a, b). Consequently, in-depth assessment of change readiness at individual and organizational levels, from both the psychological and the structural dimensions, could provide a holistic understanding of change readiness interrelationships with each KM process and its overall impact on KM effectiveness.

6.1 Implications of change readiness in knowledge acquisition

Knowledge acquisition involves a capability to recognize and acquire information from different sources. This occurs at both individual and group levels. Further, according to Sun and Anderson (2010) “acquisition is created by socio-psychological process of individuals’ intuition and interpretation” (p. 142). This implies the importance of beliefs created psychologically at the individual level for accomplishing the acquisition process.

Moreover, knowledge could be acquired from internal and external sources. Internally captured knowledge is highly reliant on the organization members’ intellectual capability (Darroch, 2003). In conjunction with that, knowledge self-efficacy representing employees’ capabilities to provide valuable knowledge could influence employees’ readiness to participate in the acquisition process. For instance, it is asserted that employees who are more competent will be highly confident in contributing and collecting knowledge (Lin, 2007, 2011). Additionally, acquisition involves the observation and examination of best practices,
which requires employee expertise to identify relevant knowledge for the organization. Thus, it is expected that employees with high change efficacy would be more ready to participate in the knowledge acquisition process.

Also, a need for new knowledge could arise when existing knowledge is no longer adequate to support the organization's needs. As a consequence, the acquisition process could be motivated from the discrepancy that exists in the current organization's knowledge bases. Discrepancy, thus, triggers beliefs and need for improvement (Armenakis and Harris, 2002; Oakland and Tanner, 2007; Pettigrew, 1987; Walinga, 2008). According to institutionalization and rationale theories, from an organizational change perspective, knowledge activities are commonly implemented in order to overcome disparity in the existing knowledge base (Chen, 2008). For instance, according to institutionalization theory, knowledge diffusion and duplication are driven by the need to comply with the institutional environment. Likewise, rationale responses to environmental changes, threats and opportunities elicit knowledge activities via learning. Hence, reconciling discrepancy is an important reason for the knowledge acquisition process. Nevertheless, the extent to which discrepancy forces knowledge acquisition implementation is subject to future empirical assessment.

With respect to the structural dimension, learning provides a foundation for the acquisition process. For instance, Miller (1996) mentions learning involves the acquisition of new knowledge and the ability to use that knowledge in making decisions and to influence the decision makers. In addition, the emphasis on learning provides a context and encourages employees to play active roles in the KM processes (Lee and Choi, 2003). Therefore, it is postulated that the extent to which learning is instilled in the organization's environment represents an influential structural readiness indicator for the execution of the acquisition process.

In addition, interactions among employees represent an essential mechanism for knowledge acquisition (Darroch, 2003; Liu and Liu, 2008). Open communication that allows for the free flow of ideas in the organization could facilitate the interaction process in the organization. Hence, it is proposed that the process of identifying and collecting knowledge could be enhanced through clear communication.

Additionally, the establishment of a clear vision could also influence the knowledge acquisition process. Kim and Lee (2010) discovered a positive correlation between a clearly stated organizational vision and levels of knowledge acquisition in both public and private organizations. Further, the establishment of shared vision and strategy provides guidance and role clarity for knowledge searching, although the impacts might depend on the type of acquisition process (Hoe and McShane, 2010; Sun, 2010). This, in turn, could motivate employees to be engaged in acquiring knowledge.

Therefore, readiness to participate in the knowledge acquisition process could be encouraged through the creation of beliefs at the individual level and is enhanced by the presence of the structural elements for translation of acquired knowledge at the organizational level. However, the extent to which change efficacy, discrepancy, learning, communication and clarity of vision influence knowledge acquisition process requires further empirical examination. The possible relations between change readiness indicators and knowledge acquisition processes, as discussed above, are depicted in Figure 2.

6.2 Implications of change readiness in knowledge creation

The essence of knowledge creation lies in the dynamic interactions between tacit and explicit knowledge, and the transformation of personal knowledge into an organizational context that enhances the value of knowledge created (Choo and Neto, 2010; Hussi, 2004; Sun, 2010). The effect of the process is also dynamic, as new knowledge is created and existing knowledge is redefined during the interactions. Externalization for instance, results in the generation of new explicit knowledge which is derived from existing tacit knowledge. If this knowledge is not externalized, it could be difficult for others to gain and understand the same unique knowledge. Further, an individual could modify his or her existing knowledge foundation by absorbing new explicit ideas during internalization.
Further to that, Nonaka et al. (2000a, b) affirm that knowledge creation is a context-specific process that is composed of behaviors of both individual and group. The diverse background of people with various perspectives and experiences contribute to the creation of new or modified knowledge. Externalization is widely viewed as a team activity, while internalization represents an individual process of new knowledge embodiment (Holsapple and Joshi, 2000; Nonaka and Konno, 1998; Sabherwal and Becerra-Fernandez, 2003; Von Krogh and Roos, 1995). For that reason, the discussion of change readiness for knowledge creation should encompass both individual and organizational levels.

Previous literature has discussed many factors influencing knowledge creation, most importantly in providing ba’. According to Nonaka and Toyama (2002), a ba is a space or context in which the knowledge creation process takes place. The context is referred to by Von Krogh et al. (2000) as a knowledge space, consisting of mental, physical and virtual elements. There are four types of ba’ introduced by Nonaka and Toyama: originating, interacting, cyber and exercising ba’. In relation to the knowledge creation process, interacting ba’ provides a shared space for peer-to-peer reflections and dialogues that represents the main mechanism for the externalization process. In addition, exercising ba’ is a space that facilitates the internalization process through learning, action and active participation.

Based on a comprehensive analysis of knowledge creation studies, Choo and Neto (2010) introduced a framework outlining four sets of the enabling conditions for knowledge creation. These conditions are classified as social, cognitive, information systems and strategy. The social condition refers to the need for encouraging interactions, such as norms and values among the people. The cognitive condition is the need for the existence of some degree of shared beliefs and ideas, in order to embrace differing ideas and experiences among people from different backgrounds. Information systems and strategy conditions relate to the appropriate use of technology and the establishment of knowledge activity direction. Further analysis of these conditions suggests that both the psychological and structural dimensions of change readiness could influence the implementation of knowledge creation activities.

At the individual level, three elements of the psychological dimension seem important to create readiness for knowledge creation. Externalization of tacit knowledge could depend on the individual’s judgment of whether the knowledge should be made explicit to the team members. Tacit knowledge is commonly hidden until there is a need to utilize or declare that knowledge to others. The judgment could involve the evaluation as to whether there is any deficiency in the tacit knowledge of others, and thus the individual's tacit knowledge should be realized in order to overcome the deficiency. Apparently, the psychological dimension of change discrepancy and change appropriateness could influence the decision to externalize personal tacit knowledge. Moreover, Hendriks (1999) suggests that challenge of work and sense of achievement are considered as high motivators for the internalization process in knowledge application and development. It is expected that an individual is

![Figure 2: Change readiness and knowledge acquisition](image-url)
ready to learn and internalize new knowledge if the effort is seen to be beneficial and contribute to a higher self-fulfillment. Hence, change valence could be an important reason to stimulate readiness for knowledge creation.

In addition to the psychological dimension, the structural dimension also has possible influences in creating readiness to participate in the knowledge creation process. For instance, internalization provides the means for learning and continuing development of skills through reading documents and sharing of others' stories (Hussi, 2004). This process could contribute towards enhancing an individual's professional growth. Hence, the value and contribution of new knowledge that increases the individual's professional growth could influence the decision to internalize new knowledge. In addition, externalization of an individual's knowledge leads to the availability and sometimes redundancy of knowledge, which is claimed as a prerequisite for innovation (Nonaka and Takeuchi, 1995). Innovativeness could help the individual conceptualize tacit knowledge and transform it to the organizational context. Moreover, Lehman et al. (2002) and Yahya and Goh (2002) assert that innovation capability stimulates people's willingness to apply new ideas and explore new possibilities. This assertion implies that innovative characteristics could also enhance the individual's capability to internalize new knowledge through practices and actions. For this reason, it is posited that individuals who are innovative would be more ready for changes in the knowledge creation process.

At the organizational level, since knowledge creation involves the upgrading of individual beliefs into the organizational context, providing 'ba' or shared space for knowledge creation based on the structural dimension is crucial. Nevertheless, the psychological dimension of change readiness is also expected to contribute to a successful implementation of the knowledge creation process.

As asserted by Choo and Neto (2010), the cognitive element represents one of the conditions for knowledge creation. Consistent with the psychological dimension of change readiness, the cognitive condition places emphasis on shared beliefs and mental modes to create new knowledge. This process requires contributions from team members with different perspectives (Nonaka and Konno, 1998). Externalization is commonly performed as a group effort (Hussi, 2004; Sthyre et al., 2002); thus, collective efficacy could be a necessary element of readiness for knowledge creation.

The knowledge creation process often requires group interactions and strong relationships among members in order to generate a positive atmosphere for effective idea generation (Nonaka and Toyama, 2004; Nonaka et al., 2006; Sthyre et al., 2002; Sun, 2010; Sun and Anderson, 2010). In a similar way, Dunin-Keplicz and Verbrugger (2003) claim that collective effort is one of the strongest motivational attitudes in teamwork, as it encourages teams to perform together and motivate each other. For this reason, collective commitment could be essential in encouraging individual contribution and team performance, hence influencing the organization members to be ready for changes in the knowledge creation process.

In relation to the structural dimension, Choo and Neto (2010) suggest that management could support the flow of knowledge through the organization's hierarchy, through the establishment of knowledge aims, and through the provision of physical space as well as the assignment of human resources for the accomplishment of the knowledge creation activities. The process of knowledge creation requires communication and sense-making capabilities among organization's members to translate acquired knowledge that suits the organization's context (Nonaka and Takeuchi, 1995; Sthyre et al., 2002). Open communication, for example, enhances social interaction, encourages dialogue and permits the flow of knowledge at different levels of the organization. Therefore, it is proposed that communication which provides a necessary platform for the employees' interaction could affect readiness for the changes in the process of knowledge creation.

The process of creating knowledge is often accomplished by several teams in the organization. In conjunction with that, a clear knowledge vision that connects teams' knowledge creation goals with the organization's overall vision is necessary to provide direction for the creation process (Nonaka et al., 2006). Accordingly, it is anticipated that the
establishment of a clear vision will provide insight into the creation of new ideas and knowledge. Besides, Sun (2010) asserts that knowledge creation involves transformation of newly acquired knowledge and the development of routines that are suitable for the organizational state of affairs. The development of these routines reflects a learning process, which requires the ability to develop useful ideas and to integrate the outcomes from knowledge acquisition with the organization’s existing knowledge bases and practices. Likewise, learning represents the main mechanism of the internalization process. As a consequence, a learning structure is expected to be essential in preparing the members to institutionalize changes in the knowledge creation process.

While acquisition is initiated from individual intuition, creation perhaps depicts a more complex process involving changes and adjustments of personal beliefs to a higher level. Thus, it is stipulated that readiness for knowledge creation is characterized by the various change readiness indicators at the individual and the organizational level as depicted in Figure 3. Future research should assess the different effects of individual and organizational change readiness, in order to provide empirical evidence as to whether readiness at individual or organizational levels is crucial for knowledge creation implementation.

6.3 Implications of change readiness in knowledge sharing

The knowledge sharing process comprises attitude, ability and action of sharing, transferring, disseminating and utilizing of shared knowledge to support organizational operations (Davenport and Klahr, 1998; Lin, 2007; Sun, 2010; Yi, 2009). Until recently, it has been argued that creating motivation for knowledge sharing remains a critical issue despite the growth in the KM field (Becerra-Fernandez and Sabherwal, 2010).

Knowledge initially resides in an individual. Thus, an individual's willingness to share his or her knowledge with others is necessary for knowledge sharing. The willingness to share is
reflected in individual knowledge sharing behavior, which is influenced by personal motivations, beliefs, as well as contextual factors of institutional structure (Bock et al., 2005; Lin, 2011; Moffett et al., 2002; Yi, 2009). Hence, the analysis of readiness to participate in knowledge sharing requires the consideration of the psychological and structural dimensions at both individual and organizational levels.

At the individual level, employees require an intrinsic element, such as feelings of competence, to engage in knowledge sharing practices (Lin, 2011; Yi, 2009). For instance, employees with high knowledge self-efficacy demonstrate higher confidence to participate in knowledge sharing activities as they are able to recognize the value of new knowledge being shared (Lin, 2007; Lucas, 2010). In consequence, employees’ evaluation of their own capability could shape their readiness to contribute in the sharing process and determine the extent of their participation.

Additionally, based on Social Exchange theory, Watson and Hewett (2006) claim that a general expectation for some future returns motivates employees’ participation in sharing knowledge. In a similar way, Bock et al. (2005) suggest that a sense of self-worth based on subjective norms could also encourage people to contribute knowledge. Although mixed findings are obtained in regard to the significance of the influence of extrinsic and intrinsic rewards on commitment in knowledge sharing, there is support for the suggestion that perceived expected change benefits or valence could stimulate the readiness among employees to take part in the sharing process.

However, the beliefs that knowledge is a source of power leads to the action of knowledge hoarding among some employees (Becerra-Fernandez and Sabherwal, 2010). These beliefs can hinder the practice of sharing and explain the reasons for the reluctance to share knowledge at group or organizational levels. However, this problem could be eliminated if employees are convinced that the knowledge they possess is valuable to the organization and that the sharing process is vital (Ryu et al., 2003). Hence, providing the justification and rationale for the appropriateness of knowledge to be shared could influence the extent of knowledge sharing in the organization.

Further to that, findings in the literature claim that principal support, particularly from organization’s leaders, encourages voluntary participation in developing and suggesting new ideas to the organization (Lin, 2011; Lin and Lee, 2006; Takeuchi and Nonaka, 2004). In addition, support and cooperation from peers is important for sharing to occur at group and organizational levels. Therefore, principal support from superiors and co-workers could be considered important in determining the level of knowledge sharing in the organization.

Also, the sharing process is often embedded within interactions between knowledge providers and receivers through the procedures in which knowledge is disseminated and utilized (Lin and Lee, 2006). In conjunction with that, significant changes in the existing practices or routines are required if new procedures are to be implemented. According to Lehman et al. (2002), employees who are adaptable to changes tend to exhibit more receptive behavior towards learning of new procedures. Therefore, it is predicted that adaptability of employees to cope with the changes is necessary to facilitate sharing.

Besides, the sharing process is sometimes carried out in non-routine, informal interactions among people with a common interest and a shared passion on specific problems or ideas (Yi, 2009). This practice is closely tied to the perception of value and reciprocity, in which participants are expected to share their knowledge to realize its potential value. For instance, the sharing of knowledge with others from the same profession will clarify any disputes and allow benchmarking for best practices, thus enhancing the value of the expertise. As a result, it implies that the pursuance of professional growth could trigger higher readiness to contribute to the knowledge sharing process.

As mentioned earlier, individuals’ motivation to perform sharing behavior is also affected by organizational conditions (Ryu et al., 2003). For this reason, the assessment of the organization context in which sharing takes place is essential to understand the influence of organizational readiness on knowledge sharing implementation. Overall, communication is thought to play a significant role in knowledge sharing. For instance, communication
channels, openness of communication and effective dialogue during formal meetings and social interactions are claimed to positively influence employees’ willingness to share and disseminate knowledge (Cockrell and Stone, 2010; Lin, 2011; Moffett et al., 2002; Yi, 2009). This is apparent since communication structure could shape interactions among employees, thus providing a crucial platform for sharing to occur.

Finally, the sharing process requires contribution from both the knowledge provider and the receiver. It is expected that greater participation by employees leads to increased sharing. For instance, strategic engagement through participation is found to influence the knowledge sharing process (Sun, 2010). Undoubtedly, employees’ involvement is considered a critical driver for knowledge sharing (Bock and Kim, 2002; Lin and Lee, 2006). Hence, it is suggested that the extent of knowledge sharing implementation is influenced by the level of employees’ participation during the change in the sharing process.

With reference to the above discussion, readiness for knowledge sharing, which is predominantly dependent on an individual’s sharing behavior, is perhaps mostly explained by the psychological indicators at the individual level. Nevertheless, organizational indicators that provide the structure and platform for the sharing process are also crucial and need to be examined. Therefore, future research should investigate the relationship between change readiness indicators and knowledge sharing process as presented in Figure 4. Potentially, the identification of influential psychological indicators of change readiness would guide better implementation of the knowledge sharing process, thus reducing the hurdles in achieving knowledge sharing objectives.

To summarize, the complex nature of the change readiness construct deserves attention and should be examined further with regard to its influence on effective implementation of the various processes of managing organizational knowledge.

7. Knowledge management effectiveness

KM processes could impact different aspects of organizations including people, process, product and the overall organizational performance. Becerra-Fernandez and Sabherwal (2010) propose that KM enhances employees’ learning and adaptability; improves the organizational process in terms of effectiveness, efficiency and innovation capability; and affects the management of value-added and knowledge-based products. On the whole, an effective process for managing knowledge would provide significant benefits to the

![Figure 4: Change readiness and knowledge sharing](image-url)

Further, the assessment of KM effectiveness is crucial to provide indications on whether the processes performed satisfied the objectives and justified the investments for the implementation. Moreover, the continuous assessment could also ensure the sustainability and success of the processes over time (Zaim et al., 2007). Nevertheless, a comprehensive measure for KM effectiveness has yet to be developed, due to its subjective nature. However, some proposed indicators could include satisfaction with knowledge availability, process and activities; understanding of knowledge needed and received; knowledge usability; knowledge quality; perceived usefulness of knowledge; and higher perceived service benefits (Brachos et al., 2007; Chou et al., 2005; Gosh and Scott, 2007; Lin, 2007; Sabherwal and Becerra-Fernandez, 2003; Wu and Tsai, 2005).

From the organizational capability perspective, the overall organizational KM capability (KMC) is assessed, based on the organization’s knowledge infrastructure capability (KIC) and knowledge process capability (KPC) (Aujirapongpan et al., 2010; Gosh and Scott, 2007; Liao and Wu, 2010; Lindsey, 2002; Zaim et al., 2007). While some studies found that KIC is more influential than KPC in defining KM performance (Gosh and Scott, 2007; Gold et al., 2001; Zaim et al., 2007), it is argued that the capability to perform the processes is necessary for defining overall KM effectiveness.

In addition, despite a limited number of studies considering the relationships between the various KM processes, these processes are claimed as interrelated (Darroch, 2005). In other words, KM should be viewed as a continuous process, whereby the accomplishment of one process could influence other processes. For example, an intensive knowledge acquisition process could lead to a greater access to a pool of knowledge. The availability of the robust knowledge bases would then influence the subsequent processes of knowledge creation and sharing (Darroch, 2005; Liao et al., 2010).

Finally, the conceptualization of the proposed relationships between the change readiness construct, knowledge management processes and knowledge management effectiveness, based on the aforementioned arguments, is depicted in Figure 5.
8. Discussion and conclusion

Scrutiny of the literature shows the importance of change readiness on the knowledge management processes. The paucity of empirical knowledge in this area is explained not only by a lack of KM studies from a change management perspective, but also by the oversimplified representation of the change readiness construct in the extant literature. This is inadequate to explain the influences of change readiness on the effective implementation of KM processes. This paper addresses the gap found in the literature on KM critical success factors by integrating change elements in the assessment of successful KM initiatives. The multidimensional and multilevel characteristics of change readiness have been discussed in order to provide a holistic analysis of the construct in the KM context.

The aim of this paper is to propose a conceptual model for integrating change readiness in knowledge management initiatives. Therefore, the discussions are devised on the basis of expected findings. Nevertheless, once accomplished this study should reveal the importance of change readiness for effective KM processes and initiatives.

On the basis of the proposed implications of change readiness for the three KM processes, various issues warrant further analysis. It is expected that the way change readiness impacts each knowledge management process is also dependent on the nature of the process itself. First, it is posited that readiness at the individual level is crucial for knowledge acquisition, since the process requires the establishment of beliefs to assure employees about the importance of acquiring new knowledge. Aligned with this suggestion, it is expected that a higher level of individual understanding about KM needs and requirements, guided by a clear KM vision with appropriate communication and learning environment, could enhance readiness to participate in the knowledge acquisition process.

Further, from the literature review, the knowledge creation process is expected to be the most demanding process. The process is complex since it requires willingness among individuals to externalize their tacit knowledge. This knowledge will then be internalized by others as new knowledge. Externalization might only occur in the situation where there is a strong reason for an individual to believe that it is appropriate and useful to externalize their knowledge (valence).

Additionally, knowledge creation is also widely agreed upon as being a group effort. Therefore, collective efforts among employees to participate in the process rely on their mutual beliefs about the ability to commit to and survive the change process. It is expected that if employees have positive insights on their shared capability and group commitment, the process of knowledge creation could be accomplished successfully. Likewise, as knowledge creation is a group effort, structural elements such as communication, learning and vision are expected to affect the knowledge creation process, enabling a more streamlined process to be carried out by the different groups or departments in the organization.

Moreover, while many studies promote the use of technology as a platform for knowledge sharing, analysis of the literature suggests that individual indicators could largely explain the readiness for knowledge sharing. In conjunction with this indication, higher readiness for embracing changes in the knowledge sharing processes could be achieved by creating positive insights among the employees about the appropriateness and value of the proposed change. Such merits include the opportunity for professional growth. If the employees perceive that they are capable of handling and adapting to the changes during the process, they are expected to be more ready to share their knowledge with others. The individuals’ willingness to commit to the knowledge sharing process is also predicted to be influenced by their views on the organizational support. Supporting factors, including effective communication and wide participation opportunities in the knowledge sharing initiative could facilitate knowledge dissemination within the organization.

The conceptual model presented in this paper suggests that change readiness contributes to effective KM implementation. However, this relationship could be mediated by the effects of knowledge management processes.
8.1 Research implications

The conceptual model presented in this paper contributes to the knowledge management literature in several ways.

First, this paper addresses the gap in the literature and recommends the inclusion of change management in the assessment of KM failures and success factors. While many studies focus on assessing implementation success, this paper proposes attention should be given to the phases prior to the KM implementation stage. The assessment of beliefs about the proposed changes at the earlier stage enables consideration of various elements that will shape employees’ behavior and attitude towards the change implementation.

Second, many studies of knowledge management have considered the effects of structural elements as being critical to the success of KM implementation, particularly at the organizational level. However, many fail to fill the gap in understanding the psychological elements that potentially affect the individual’s readiness to participate in the process of managing knowledge. This paper highlights the multidimensional characteristic of change readiness. Further, it proposes that the assessment of KM success and effectiveness should reflect both the structural elements underlying the process and employees’ psychological beliefs about the changing nature of organizational KM processes.

The argument presented in this paper provides stimulus for further fruitful study in the area. On the basis of the discussion, it is anticipated that various aggregations of the change readiness indicators influence each KM process. Nevertheless, exactly how change readiness contributes to the different KM processes remains unclear. An extensive empirical analysis of change readiness as a multidimensional and multilevel construct and its impact on KM processes is crucial. In order to gain a broader understanding of the phenomenon, the proposed relationships as depicted in the model illustrated require empirical assessment in different organizational settings.

The study of how change readiness affects KM processes carried out in organizations of diverse sizes, for instance, will shed light on the effects of change readiness on the processes. The psychological dimension of change readiness could be more significant for small and medium organizations, as they might perceive that willingness to change would help them to survive in a competitive market. However, their efforts could be hindered due to constraints related to resources and infrastructures.

On the other hand, large organizations often focus more on the structural dimension as the means to implement KM processes. Nevertheless, without appropriate consideration of a strategy to promote willingness to participate in the processes, the structural investment made to support KM implementation may not yield the desired outcomes. Hence, if findings from various studies highlight common elements of change readiness across different settings, it could be claimed that the assessment of change readiness is a crucial consideration in KM processes.

Further, analysis of the change readiness influences on KM processes among different industries might be worth studying. For example, new knowledge acquired and created in manufacturing organizations might be translated into a more tangible form such as the design and production of merchandise, thus making this knowledge more explicit in nature. In contrast, service organizations would primarily deal with the management of tacit knowledge in order to provide advice and consultation to clients. Consequently, different types of primary knowledge to be managed in different industries might reveal the moderating effects of knowledge type and industry type on the relationships between change readiness and knowledge management processes.

Moreover, the proposed model also suggests that interactions between knowledge management processes are crucial in deriving positive outcomes from KM implementation. This should be established and verified as it is essential for developing a comprehensive understanding of the reciprocal influence of KM processes and their impact on overall KM effectiveness. Nevertheless, the assessment and measurement of KM effectiveness is still underdeveloped. Accordingly, the analysis of change readiness effects on effective KM
through their influence on knowledge processes could further explain the potential predictors of effective KM. Subsequently, extended models of KM effectiveness that examine KM performance from the organizational change perspective can be theorized and validated.

Additionally, prominent theory such as Diffusion of Innovation (Rogers, 2003) could be applied to explain the impacts of change readiness, as part of the innovation decision process, on knowledge management effectiveness. Such study could enhance theoretical understanding when changes in KM processes are viewed from the innovation perspective. Also, the integration of the proposed change readiness model with the Information Systems Success Model introduced by DeLone and McLean (2003) might provide clarification regarding the impact of change readiness on successful KM system-based implementation. As a final point, the conceptual model presented in this paper provides a platform for further empirical analysis of the indirect and direct influences of change readiness on the effective processes for managing organizational knowledge.

8.2 Practical implications

Many KM efforts are reported as failures despite enormous investment in the development of infrastructure that supports KM processes (Chua, 2009; Lucier and Torsilieri, 1997; Storey and Barnett, 2000). From a practical perspective, the conceptual model proposed in this paper could be useful for management to realize that, apart from organizational readiness, people readiness for changes in KM processes is another crucial aspect to consider in the effort to achieve KM effectiveness.

The conceptual model highlights multidimensional elements of change readiness encompassing the psychological and structural elements that are present at both individual and organizational levels. Through a conceptualization of the relationships between change readiness, knowledge management processes and knowledge management effectiveness, the study offers a number of practical guidelines for the development of KM policy and a road map for a change management perspective.

The model proposes potential influences that the readiness elements exert on the different processes for managing organizational knowledge. These expected findings could provide an input for management in allocating organizational resources that aligned with the needs for a successful implementation of the distinctive KM process. For example, from the understanding of individual psychological and structural influences on the different KM processes, change readiness could be a critical factor to consider in the selection and training of individuals to be involved in each process. This input leads to the formation of an effective KM team consisting of individuals who possesses certain psychological and structural attributes. This is essential to ensure that team quality matches with each KM process.

Furthermore, promoting psychological readiness to embrace changes in the KM initiatives should focus on convincing employees about the needs, purposes and benefits of the proposed changes. Minimizing the assumption that people’s behavior can be changed easily in KM implementation is essential for successful KM. Thus, management should develop a sufficient understanding among the employees regarding the importance of an improved KM processes for sustainable organization competitiveness.

In addition, the level of structural readiness among the employees could be enhanced through motivational courses and training that encourage people’s innovativeness and adaptability to cope with the changes. Appointing team members who can exert a positive influence on others could facilitate the change initiative. Further, an opportunity for professional growth through involvement in KM processes should be highlighted as part of employee career development, in order to promote continuous participation and commitment from the employees throughout the process of managing organizational knowledge.

At the organizational level, the psychological dimension highlights the importance of collective beliefs and confidence among the teams to collaborate in KM implementation.
Therefore, designing a strategy that increases team expertise and commitment could minimize hassles that might result from the change initiatives. Strong inter-organizational relationships among teams and departments, for instance, should be enhanced as they could provide a solid platform for an effective knowledge flow within the organization.

Moreover, discussion on the organization's structural dimension for KM readiness offers an insight regarding the importance of establishing an appropriate communication structure that expands the employees’ opportunity to participate in KM change initiatives. The communication structure of the organization should facilitate the exchange of ideas to improve KM effectiveness. Likewise, the contribution of ideas from different teams during the decision to implement changes in the KM processes could lead to better decisions when designing pertinent KM processes for departments or groups functions.

Strategy that encourages learning in KM processes is another imperative consideration for successful KM. A learning atmosphere that permits a considerable amount of mistakes for employees to learn during the process of acquiring, creating and sharing knowledge could increase the employees' readiness to accomplish new responsibilities and job requirements as changes are executed.

As a final point, strategies for the KM implementation must be designed with a clear vision so that all of the KM initiatives practiced in the different departments or by the distinctive teams are perceived as focusing on one common goal. The alignment between KM strategy and business strategy must be established. A parallel integration of KM goals and business objectives will provide a strong indication that the implementation of KM processes in the organization is crucial to achieve the business's overall goals.

A comprehensive analysis of change readiness influences could guide an organization in developing a robust KM plan that addresses both psychological and structural issues. In conclusion, further analysis of the KM implementation from a change perspective could possibly offer new insights and explanations regarding the increasing number of KM initiatives failures.

References


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