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Abstract

Purpose – *This study aims to show how change readiness shapes the knowledge acquisition process. The study elicits change readiness factors, at the individual and firm levels, that influence the knowledge acquisition process and are based on the context of professional service firms.*

Design/methodology/approach – *The qualitative study is grounded in interpretive philosophy and adopts a multiple-case study design. Three New Zealand Professional Service firms were analyzed for this study. Using grounded theory analysis, categories and concepts of change readiness that shape knowledge acquisition were identified.*

Findings – *Knowledge acquisition understanding, knowledge acquisition context and individual differences, represent primary dimensions defining change readiness for the knowledge acquisition process. Finally, distinctive firm archetypes, inter-profession differences and professionals' demography, affect the way change readiness elements shape the knowledge acquisition process in the firms studied.*

Research limitations/implications – *The study develops a theoretical model that shows how elements of change readiness, at the individual and organizational levels, influence knowledge acquisition. The study offers several propositions that could be tested in future studies. The study involves three professional service firms; hence, interpretation of the findings is limited.*

Practical implications – *A holistic understanding of change readiness factors that influence knowledge acquisition could mitigate failures of knowledge management processes in organizations.*

Originality/value – *It is the first empirical study that seeks to develop a theory on how change readiness elements influence knowledge acquisitions in the organization. To offer more contextualized findings, the study is done within the professional service industry.*

Keywords *Change management, Knowledge acquisition, Knowledge management, Professional service firms, Change readiness*

Paper type *Research paper*

Introduction

New knowledge acquisition results in the enhancement of existing knowledge and skills (Kim and Lee, 2010; Liao *et al.*, 2010; Pacharapha and Ractham, 2012). With the expansion of the firm's knowledge base, the firm is able to offer new products and services, hence contributing to the firm's innovation and survival. Despite the fact that acquisition is an important knowledge management (KM) process, a review of the literature shows that this process is relatively neglected in the KM literature, particularly from the behavioural perspective.

Earlier studies of knowledge acquisition have focused largely on the role of information technology (Motta, 2013). Knowledge acquisition from the technological perspective evolved from constructing and modelling intelligent problem-solving systems to establishing large-scale distributed data acquisition and management systems (Motta, 2013). KM, however, is not simply about technology. Tacit knowledge, for example, embedded in the knower and context, requires a complex consideration of knowledge sources' and recipients' willingness and abilities to engage in the knowledge acquisition

process. Due to the complexity of the process, knowledge acquisition needs to be extended to understand human-related aspects, including social and cognitive elements, in the process of eliciting experts' knowledge (Gaines, 1987, 1989).

By shifting away from technologically based acquisition, this study investigates how the success of knowledge acquisition is shaped by individuals' and firm's readiness to embark on the process. Therefore, understanding the elements of change readiness for the process would be useful for firms aiming to institutionalise the knowledge acquisition process in their operations (Pacharapha and Ractham, 2012). Further, existing studies on knowledge acquisition focus on factors affecting inter-firm knowledge acquisition (Cassiman and Veugelers, 2006; Chandler and Lyon, 2009). Little empirical evidence is available for explaining the phenomena within the firm.

This empirical paper addresses these gaps in the literature by developing a theoretical model for understanding individuals' and firms' change readiness towards the knowledge acquisition process. The aim is to explain how the elements of multidimensional change readiness construct shape knowledge acquisition, particularly within the context of professional service firms.

Literature clearly suggests that implementation of KM processes infuses changes in firms, which affects employees and the firm's operation. For this reason, the firm (including its employees) must be ready for the change. Change readiness is a vital component of change management, and it represents the belief/understanding and the efficacy to embark on the change. Therefore, this study views knowledge acquisition from a change readiness perspective. The paper is structured as follows. First, the paper establishes the theoretical background by integrating knowledge acquisition, change readiness and professional service literatures. Second, the paper explains the research methodology. This is then followed by results and discussion of findings, leading to the development of the theoretical model. Finally, the paper concludes with theoretical and practical implications and suggestions for future research.

Literature review

Understanding the knowledge acquisition process

Knowledge acquisition focuses on identifying and seeking new knowledge and recognising existing knowledge. However, some literature considers activities of creation, exploitation and development of the existing and acquired knowledge as part of the acquisition process (Chen and Mohamed, 2007; Hoe and McShane, 2010; Kim and Lee, 2010; Liao *et al.*, 2010). Because acquisition of knowledge could modify one's present belief system, there is an ambiguity in setting a clear boundary between identification/recognition of knowledge and the subsequent effect of modification to the prevailing knowledge base. Thus, in this study, creation of new knowledge is considered as a subsequent outcome of the acquisition process.

Knowledge acquisition affects firms at multiple levels (Zahra and George, 2002). Individuals, as knowledge sources and recipients, represent key players in the knowledge acquisition process. Individual knowledge acquisition refers to employees' ability to seek new knowledge from internal and external domain experts or to develop new knowledge on the basis of their existing knowledge base (Kim and Lee, 2010; Politis, 2002). Acquisition of knowledge expands individuals' knowledge base and offers greater opportunities for knowledge utilisation in their task performance (Hoe and McShane, 2010). This process involves human-related elements (Chen and Mohamed, 2007); therefore, the understanding of elements affecting knowledge acquisition at the individual level is crucial.

At the firm level, the process is vital for development and expansion of the firm's knowledge base. Knowledge acquisition enables firms to obtain knowledge that is critical to support firms' survival and competitiveness (Chen *et al.*, 2010). Many studies also suggest the influence of

knowledge acquisition on firms' innovation capability (Andreeva and Kianto, 2011; Cassiman and Veugelers, 2006; Grimpe and Kaiser, 2010; Liao *et al.*, 2010; Van Wijk *et al.*, 2008).

A review of the literature shows that organisational learning and innovation diffusion represent major theoretical lenses for the assessment of knowledge acquisition at the firm level. Most studies, from the organisational learning perspective, focus on inter-firm knowledge acquisition from strategic business alliances such as joint ventures, outsourcings and mergers (Lyles and Salk, 2006; Thuc Anh *et al.*, 2006). Knowledge acquisition, from the innovation perspective, proposes positive effects of acquired knowledge on a firm's capability to improve its services and products (Andreeva and Kianto, 2011).

From the organisational learning perspective, Hoe and McShane (2010) differentiate formal (i.e. structural) from informal knowledge acquisition. Structural refers to a planned knowledge acquisition process, in which the flow of information and knowledge comes from a firm's structural orientation. In contrast, an informal knowledge acquisition process refers to spontaneous and voluntary acts of obtaining knowledge, which occur through personal, casual and *ad hoc* interactions. Informal knowledge acquisition could compensate for weaknesses in the structured knowledge acquisition process. Further, informal acquisition is crucial for the acquisition of tacit knowledge, which could be transferred effectively through direct interactions and observations between knowledge recipients and knowledge sources.

From an innovation perspective, both external and internal sources of knowledge are fundamental for the knowledge acquisition process (Fong and Lee, 2009; Kim and Lee, 2010; Liu and Liu, 2008; Lopez and Esteves, 2012). Knowledge acquisition within and across firms is seen as a complementary strategy for achieving a firm's innovation capability (Cassiman and Veugelers, 2006; Van Wijk *et al.*, 2008).

Internal knowledge acquisition focuses on seeking knowledge from personal networks, colleagues' expertise and experience and organisational routines (Fong and Lee, 2009; Ryu *et al.*, 2005; Yang and Farn, 2010). In the absence of internal knowledge sources, knowledge is acquired externally from the firm's environment, including from policymakers, suppliers and clients (Andreeva and Kianto, 2011; Liu, 2010), recruitment of external experts and involvement in professional networks, as well as benchmarking and collaboration through strategic business alliances (Fong and Lee, 2009; Kim and Lee, 2010; Liu and Liu, 2008).

Factors influencing the knowledge acquisition process

In line with various mechanisms and sources for acquiring knowledge, the extant literature suggests diverse factors affecting the process. Previous studies discuss the linkage between knowledge acquisition and firms' absorptive capacity (Thuc Anh *et al.*, 2006; Van Wijk *et al.*, 2008). A firm's absorptive capacity refers to the firm's ability to recognise, assimilate and apply new knowledge (Cohen and Levinthal, 1990). Zahra and George (2002) extend the conceptualisation of absorptive capacity by suggesting it to be represented by a set of routines and processes which enables new knowledge to be acquired, assimilated, transformed and exploited in a firm's operation.

Matusik and Heeley (2005) suggest that, in addition to firms' absorptive capacity, the ability to absorb external knowledge also depends on individuals' absorptive capacity. Although a firm's absorptive capacity is not exclusively defined by its individuals' capability, individuals' absorptive capability does contribute to the development of the firm's absorptive capacity (Matusik and Heeley, 2005; Thuc Anh *et al.*, 2006).

While absorptive capacity is important for knowledge acquisition, the process of obtaining and integrating knowledge could be difficult in the absence of organizational support. For example, top management support is essential for motivating and providing directions for knowledge acquisition (López-Sáez *et al.*, 2010; Lyles and Salk, 2006). Additionally,

participatory decision-making could enhance employees' commitment to engage in the process (Chandler and Lyon, 2009; Kim and Lee, 2010). Moreover, acquisition of knowledge involves interactions among knowledge sources and recipients. Therefore, social interaction is claimed to be fundamental in knowledge acquisition (Kim and Lee, 2010). Intensity of communication that enhances interactions, for instance, also triggers identification and acquisition of new knowledge (Carley, 1986; Kim and Lee, 2010). Also, knowledge characteristics (Chen *et al.*, 2010; Desouza *et al.*, 2006; Hoe and McShane, 2010; Pacharapha and Ractham, 2012; Van Wijk *et al.*, 2008), firm characteristics (Kim and Lee, 2010; Van Wijk *et al.*, 2008) and job characteristics (Chandler and Lyon, 2009; Gray and Meister, 2004) could also affect the knowledge acquisition process (Liu and Liu, 2008; Ranft and Lord, 2000).

The ability of acquirers to recognise and understand new knowledge is vital in the knowledge acquisition process. Because knowledge acquired requires assimilation into the existing knowledge base, prior knowledge, skills and understanding, affect individuals' ability to engage in knowledge acquisition (Kang and Kim, 2010; Lyles and Salk, 2006). Hence, consideration of individual factors that could stimulate involvement in the knowledge acquisition process is crucial. Nevertheless, literature offers little empirical discussion of individual factors affecting knowledge acquisition. For these reasons, the current study intends to assess both firm and individual factors, from the change readiness perspective, that potentially affect the knowledge acquisition process in a professional service context.

Knowledge acquisition in the professional service context

Professional service firms (PSFs) are characterised by their knowledge-intensive operation (Alvesson, 2000; Jensen *et al.*, 2010; Lowendahl *et al.*, 2001). Their operation is also governed by professional standards and regulations. Despite ambiguity that exists in PSFs' definition, accounting and engineering and law firms are consistently recognised as PSFs (Greenwood *et al.*, 2007). On the basis of PSFs' high knowledge intensity, the quality of services provided by PSFs depends on their depth of knowledge and the skills of the professionals (Von Nordenflycht, 2010). At the same time, dynamism in the business environment (Rafferty *et al.*, 2013), results in constant changes to the clients' service scope. These changes create the need for PSFs to expand their existing knowledge base (DeNisi *et al.*, 2003; Malhotra *et al.*, 2006). PSFs, therefore, require an ongoing acquisition of important knowledge to enable the delivery of expected services (Andreeva and Kianto, 2011; Chen *et al.*, 2010; Kang and Kim, 2010).

Additionally, because PSF's operations are mostly team-based (DeNisi *et al.*, 2003), the combination of different levels of experience among team members requires effective knowledge acquisition and transfer to ensure service accomplishments. For these reasons, acquiring and enriching knowledge to keep up with industry development is required for professionals within PSFs.

Nonetheless, professionals' motivation in knowledge acquisition represents a critical challenge for most firms (Witherspoon *et al.*, 2013). Further, empirical studies examining factors that motivate professionals' readiness to engage in the firm's knowledge acquisition process are scarce. This study makes a contribution by examining individual and organisational elements that shape readiness for knowledge acquisition in the PSF context.

Change readiness for the knowledge acquisition process

Change readiness construct has been widely studied in the organisational change literature and has been previously conceptualised as a belief that affects reactions towards change (Armenakis *et al.*, 1993) during the initial stage of change management process (Armenakis *et al.*, 2007). Change readiness has been seen as an intervention necessary for minimising change resistance (Bernerth, 2004). Conceptualisation of change readiness has expanded to include transformation of beliefs into actions, thus representing the

indicator of positive attitudes for change (Rafferty *et al.*, 2013). It motivates employees to be persistent and committed to the change process (Weiner *et al.*, 2008). Consequently, change readiness is a critical element that shapes the outcomes of change initiative in organisation (Rafferty *et al.*, 2013).

In this study, change readiness is viewed as a critical component of change management process. It represents belief that shapes a positive mindset and movement towards changes. Creation of change readiness results from consideration of capability and context or circumstance in which the process occurs.

In the context of KM, accomplishment of KM processes requires changes in firms' structure, practice and culture to ensure effective knowledge flow in the firm's operation (Ajmal *et al.*, 2010). These changes, however, could trigger resistance for change by employees, and can result in KM failure if they are not supported by effective change management (Jasimuddin, 2012).

To explain, knowledge acquisition could bring changes to individuals' and firms' prevailing knowledge bases and practices. At a micro level, Carley (1986) positions individuals' knowledge acquisition from a social perspective and suggests that the acquisition of knowledge is the result of their interactions with the environment. As the individual interacts and obtains more knowledge, his/her thinking changes, stimulating further knowledge acquisition. It is important to note that an individual's knowledge acquisition depends on his/her readiness to engage in the process (Gray and Meister, 2004). Acquisition, assimilation and utilisation of new knowledge induce changes to the individual's cognitive structure (Pacharapha and Ractham, 2012). This modification to the individual's thinking is essential for the integration of new knowledge, which contributes to the expansion of his/her prevailing knowledge base. For these reasons, individuals' readiness to receive new ideas that alter their current mental model is critical.

Apart from the readiness to acquire and integrate knowledge, individual differences in terms of basic abilities influence the capability to acquire new knowledge. An individual's prior knowledge and experience, for instance, could enhance that individual's capability to recognise and understand new knowledge (Matusik and Heeley, 2005). This means that individuals' capability to acquire new knowledge could shape the knowledge acquisition process.

Moreover, acquisition of new knowledge leads to changes in individuals' knowledge bases and potential change in behaviours (Van Wijk *et al.*, 2008). For example, an individual's knowledge acquisition could result in the incremental understanding of knowledge acquired, bringing about changes from the knowledge acquired (Gray and Meister, 2006). These changes in individuals' behaviour could positively affect a firm's performance. Therefore, the above arguments indicate that engagement in the knowledge acquisition process induces changes in a firm's practices and behaviours at the micro as well as the macro levels. For these reasons, understanding the elements at both the individual and firm levels that shape readiness to adapt to changes from the knowledge acquisition perspective is crucial. A qualitative approach, through multiple case studies, is adopted to reveal these phenomena.

Research method and design

This qualitative study adopts an interpretive paradigm through the use of multiple case studies (Stake, 2006). The participating firms consisted of three New Zealand PSFs. Two of these firms are accounting establishments and one is an engineering maintenance firm. Size and nature of the firms' operations vary. CNS is a branch of a global accounting firm; ACC is a small accounting practitioner with six staff members. ENG, an aircraft engineering maintenance provider, is a medium-sized PSF employing about 50 professional engineers. All firms possess characteristics of professional service practices as suggested by Fong and Choi (2009). These firms operate in knowledge-intensive sectors and deliver services

directly to clients on the basis of specialised professional knowledge, skills and experience. Because their operations are regulated by professional bodies, the completion of service engagements requires the adherence to a professional code of conduct.

The data collection process involved semi-structured interviews with 16 participants (see Appendix for Participant Background). Each session took about 45 minutes to 2 hours. The participants consisted of managers and employees of the above three PSFs. Involvement from professionals at both managerial and operational levels enabled data source triangulation and enhanced understanding of the ways change readiness influences knowledge acquisition in the PSFs studied. The interview protocol was used in the interview sessions as guidelines, which facilitated exploration of the relevant issues in detail (Marks, 2000). Probing questions were also included as and when necessary during the interview sessions. The interview focused on eliciting participants' perspectives and experience regarding elements that influence their readiness to engage in the knowledge acquisition process. Questions asked include participants' opinion about nature of knowledge acquisition activities in the firms, participants' experience regarding changes in the way knowledge is acquired, their readiness in undertaking changes with regards to knowledge acquisition and elements that contributed in shaping participants' readiness for embarking on the knowledge acquisition process. Examples of questions are:

Q1. "How ready are people in the organization when it comes to acquiring and implementing new knowledge?"

Q2. "How do you cope with the latest development in the industry or changing requirements of clients' need?"

Data from interviews were self-transcribed, which then were analysed using three stages of coding process. We followed the grounded theory analysis by Strauss and Corbin (1990). Results from the coding led to the emergence of concepts and core categories of change readiness and knowledge acquisition. The resulting change readiness concepts and categories are multi-dimensional at both individual and organisational levels. These elements were then used to explain the phenomena of change readiness in the knowledge acquisition process, particularly in the context of professional service operation. Further, cross-comparison of phenomenon in the three firms highlighted three moderating elements which are:

1. firm archetype;
2. inter-firm differences; and
3. job tenure of participants.

The following section presents the findings on the basis of a cross-case analysis.

Case findings

This section presents categories of change readiness that emerged from the coding process. An important point to note is that the three firms have different mechanisms to acquire knowledge, and different sources where new knowledge comes from. For example, for some firms, new knowledge can come from external training, some can come from changes in the regulations of the profession and some can be generated internally. Due to different knowledge sources and various ways knowledge is acquired, the knowledge acquisition process can vary among the firms studied. However, the emphasis of this study is to elicit factors, at different levels, that stimulate professionals' readiness to acquire knowledge irrespective from where the knowledge comes from or what mechanisms are used.

On the basis of the analysis, six categories at the individual and firm levels, representing change readiness for the knowledge acquisition process, were developed. At the individual level, four categories emerged: need for knowledge, perceived management support,

expertise and adaptability. At the firm level, two categories emerged: learning and communication.

Individual-level change readiness categories for the knowledge acquisition process

In the context of the firms studied, beliefs about the need for new knowledge, perceived management support, level of individual expertise and adaptability represent important elements for stimulating individuals' readiness in acquiring knowledge.

Need for knowledge. Findings indicate that beliefs about the need for new knowledge enhanced professionals' readiness to acquire knowledge. There are different elements that trigger the identification of new knowledge. For ACC, the need for new knowledge is recognised by an individual professional who is responsible for handling a particular service niche. For larger firms such as ENG and CNS, the need for knowledge commonly results from team or management decisions. Discussion with other team members during the service engagement, for instance, leads to the identification of new knowledge that is essential for problem solving and process improvement:

> If we see a knowledge hole, we will go through the issues, will discuss it and we will try to find the solution (P9, ENG-Technical Supervisor).

> A lot of our knowledge I would say comes internally, because it is such a large firm. It is not only in Hamilton, but also from the branch in Auckland. We have experts in various areas and we are usually the first one to know [new development] (P3, CNS-Manager).

Further, interactions with external sources such as professional bodies and clients also trigger the need to expand the existing knowledge base to conform to regulatory changes and clients' demands. However, the narrow service focus of ENG reduces the need for new knowledge, which limits new knowledge acquisition efforts in the firm, in comparison to CNS:

> For us, a lot of them are taken from big brother, which is the airlines company [. . .]. They will say we are in this direction; you need to come with us in this direction [. . .]. We are not really exposed to the latest development in the industry that much, because we've only got one type of aircraft and they are getting on for ten years old now. We just sort of focused on that aircraft (P10, ENG-Engineer).

Perceived management support. Perceived management support also appears as an important element that motivates employees to acquire knowledge. In ACC, the management acknowledges that the firm relies heavily on external sources to support the firm's knowledge development. Hence, professionals are granted extensive support to attend external courses for acquiring knowledge. Similarly, management support for seeking new knowledge also exists in CNS:

> If it [external course] looks interesting and we need to know, we will choose any course that is relevant for the development of small practice operations or clients. We approached the manager and so far he never says "no" (P2, ACC-Accountant).

In the case of ENG, although the management claims that the firm is supportive of new knowledge acquisition, professionals at the operational level are of the view that there is limited opportunity for external knowledge acquisition to support their professional development. Their contradictory opinions are depicted below:

> We are looking for those knowledge holes [. . .]. And, people on the top are part of it, supporting it (P9, ENG-Technical Supervisor).

> We have many types of engineers here, unlicensed engineers like I am. Then, we have licensed engineers who have the authority to release the aircraft. To become a licensed engineer you have to do about ten licensing exams. We have to do it on our own [. . .]. There should be resources for us to help us up-skilled and become licensed engineers. At the moment, it is done individually [. . .] there is no official policy. So that is the way to upgrade your knowledge (P10, ENG-Engineer).

Expertise. Individual expertise is essential in shaping professionals' readiness for knowledge acquisition. For ACC, due to its limited expertise, capturing knowledge externally from clients, regulatory bodies and other leading firms is vital:

> We are such a small firm. We've got knowledge from courses outside, knowledge from clients and knowledge employees bring in from other places, wherever they come from, where they might have done things better (P2, ACC-Accountant).

In contrast, the availability of experts within the firms provides opportunity for ENG and CNS to focus on internal knowledge acquisition. As a global professional firm, CNS relies on its key internal experts for knowledge acquisition from international networks. Because the PSF's operation is highly dependent on knowledge possessed by experts, the development of expertise involves working in the area for a certain period of time. Therefore, senior and experienced professionals represent the main source for knowledge acquisition in CNS and ENG. The availability of expertise that meets the acquirer's knowledge need thus shapes professionals' readiness to acquire knowledge from internal, external or both sources:

> So, when new legislation comes out, we sit in-house, and with our company network, we have specialists in different areas (P3, CNS-Manager).

Moreover, employing new experts is seen as another effective way of acquiring industry knowledge. In a highly regulated industry, the expertise of professionals is vital in ENG's operation. Due to the shortage of local talent, the firm focuses on hiring expatriates with relevant expertise in the aviation industry. Hiring talent from outside accelerates the knowledge acquisition process in ENG:

> Part of the strategies, we have people from overseas, who already had that knowledge. So, we will see if there is a knowledge deficiency that we can't find within New Zealand; we will go through and employ people from overseas [. . .]. When they come here, they've already got some expertise and experience. We try to grow on our own, but you know sometimes people are not available and it takes time to build the experience up; so therefore we try to bring it in externally from off shore (P9, ENG-Technical Supervisor).

Adaptability. Knowledge acquisition at the individual level involves the individual ability to recognise, assimilate and apply new knowledge. Effective knowledge acquisition requires the knowledge recipient to be able to integrate new knowledge within his/her prevailing knowledge base. For instance, knowledge acquisition that aims at innovation may require the integration of novel and unfamiliar ideas and thinking. Therefore, the ability to be adaptable to new ideas could enhance professionals' readiness to acquire new knowledge. Findings indicate that professionals who are unable to integrate new knowledge face difficulties in adjusting to changing knowledge requirements. As a result, initiatives for acquiring and assimilating new knowledge could be hindered:

> There are some people who took changes [new knowledge] very quickly and get to the new methodology, but others didn't [. . .]. Those guys who are the change-against, they need to look at different organisation's environment, benchmark themselves (P9, ENG-Technical Supervisor).

> I think we rely much on the ability to maintain relationship, being flexible and adaptable. [. . .] I think that individual as a knowledge worker, we need to go out and find information about new knowledge (P5, CNS-Senior Manager).

Also, individual adaptability could be influenced by demographic factors such as job tenure. Job tenure could be related to age, where older employees might show some resistance to change. For instance, as mentioned by participants:

> I do think some resistance to a certain level. It is age-related from my perception, different level with different perception. To learn something new might take even longer or even more (P5, CNS-Senior Manager).

> The issue is do you want to embrace change or not. Probably, we got people from age 35 to 68 years old. Are they willing to change or not, that is the issue (P1, ACC-Director).

Therefore, findings indicate that the need for knowledge, perceived management support, professionals' expertise and adaptability is crucial in triggering individuals' readiness to engage in the knowledge acquisition process among professionals. Apart from these readiness elements at the individual level, readiness elements at the firm level are also crucial to enhance professionals' engagement in the process.

Firm-level change readiness categories for the knowledge acquisition process

Findings reveal that there are two firm-level readiness elements that are critical in shaping readiness for the knowledge acquisition process: learning and communication.

Learning. Coaching and training programmes are two major learning forums that enhance professionals' readiness for acquiring knowledge. Coaching improves readiness to acquire knowledge by facilitating new entrants' understanding of the firm's procedures and processes. Training enhances knowledge acquisition readiness by enabling continued learning of new knowledge and the changing practices.

Findings indicate that coaching is a common approach used for new entrants to learn firm-specific knowledge. While CNS emphasises a structured and formal coaching approach, ENG uses a semi-formal coaching approach. In the formal approach, a specific experienced "buddy" is assigned to work with the new entrant, while the semi-formal approach involves rotation of superiors to supervise the new entrant during the induction period. Throughout this period, new entrants could gain exposure and knowledge about the firm's practices and operations, and, most importantly, could develop tacit knowledge by interacting with these experts:

> When I started here, I received what they call a "Buddy", someone senior probably about two levels up, and this is someone who you can go to and ask all sorts of silly questions; a lot of it is you receiving all tacit knowledge. It is like whom I proof my readings to (P7, CNS-Senior Associate).

> When a new engineer comes in we will put someone experienced on the roster to work with the newbie [. . .] so they can use that person to ask question [. . .] information about the company that they need to know (P9, ENG-Technical Supervisor).

Formal coaching is of less concern for ACC, possibly because of limited expertise and high job specialisation in the firm:

> There was no specific program to assist employees to go through the changes. Again, this is a small practice where you see the people every day [. . .]. There is no formal induction program for new employees, but everybody helps each other (P2, ACC-Accountant).

Further to coaching, readiness for knowledge acquisition is also enhanced through training programmes. Attending formal group training and courses, for instance, enhances professionals' readiness to acquire new knowledge concerning changes in job procedures and industry regulations, as emphasised by the following participants:

> I was given the initial training when I came here. Knowledge that I acquired initially helped me a lot in understanding about the aircraft. So, the training gives me basic ideas how to carry out my task and whereabouts to do the things related to the aircraft (P15, ENG-Engineer).

> There is training, a whole range of training including technical, accounting and project management. I see training as a learning process for people (P5, CNS-Senior Manager).

> I've also experienced some changes during the implementation of the recovery database and changes in the legislation. For instance, there are new ways of doing recovery actions [. . .]. In this case we have to do training [. . .] We have a continuous system; it is calendar based, rolling out the courses by specific dates (P6, CNS-Associate).

While learning of new knowledge through internal training improves readiness for acquiring new knowledge in larger firms, readiness for acquiring new knowledge among professionals in ACC is enhanced through external training:

> At this stage, there is no internal training since we don't have the speakers for that. It is something that we might need to look at soon (P2, ACC-Accountant).

In addition to learning about new knowledge through formal training, informal learning through on-the-job-training is also important for fostering readiness to acquire knowledge, particularly in ENG. This mechanism facilitates professionals to assimilate new knowledge into existing practice:

> Their knowledge is acquired by experience and teaching [. . .]. First of all you give them education, we do a lot of training here, so therefore we go through and giving them education, and then we go through and giving them experience and on-the-job-training [. . .]. We educate a lot of people on tasks by on-the-job training; train them on how to do it (P9, ENG-Technical Supervisor).

Moreover, the lack of internal sources of knowledge requires PSFs to learn from external sources. Benchmarking with other companies, for instance, is one of the strategies applied to enhance professionals' readiness to engage in ENG's knowledge acquisition. Benchmarking is an active effort for learning that allows firms to identify essential knowledge to be acquired from the external environment (Yli Renko *et al.*, 2001). Consequently, professionals are motivated to engage in the necessary knowledge acquisition to overcome any knowledge deficiency that is apparent from the benchmarking effort:

> When we want to implement changes in our organisation, we benchmark to challenge our own perceptions [. . .]. I need to take them [engineers] to different organisations for them to view. It is only then, they start to change, and it is when learning in that change behaviour will only occur. I have to take them outside of their own comfort zone to a different environment, and challenge their own old theory. It really occurs in behavioural changes (P9, ENG-Technical Supervisor).

The establishment of the above formal and informal learning mechanisms enhances firms' capabilities in the knowledge acquisition process. Therefore, having in place these learning mechanisms fosters professionals' readiness to engage in the process.

Communication. A communication platform is also essential in shaping readiness for the knowledge acquisition process. Although communication approaches for acquiring knowledge vary in these firms, findings show that the establishment of appropriate communication mechanisms improves interactions and transfer of new knowledge from knowledge sources to knowledge recipients.

In ENG, interactions among team members and supervisors are particularly important for deriving solutions for problems that are encountered while performing maintenance tasks. Due to the lack of formal learning in ACC, face-to-face interactions among professionals is critical to support new entrants' knowledge acquisition. "Open communication" practices, thus, contribute to enhancing readiness for the knowledge acquisition process. Nevertheless, internal communication for acquiring domain knowledge is minimal in ACC due to a limited number of experts and high individual specialisation in a particular service domain.

Findings also indicate that an effective communication mechanism with external stakeholders is essential for enhancing readiness to acquire knowledge. For ACC, with a relatively small number of experts, new domain knowledge is largely obtained through communication with larger firms and regulatory bodies. Also, with competition from other small- and medium-sized practitioners, effective communication with clients enables relevant market knowledge to be gathered. This interaction, in turn, could strengthen professional relationships with the clients on a long-term basis. Moreover, although CNS's knowledge acquisition initiatives focus on accumulating knowledge from internal sources,

communication with external parties such as professional networks and clients leads to acquisition of new insights for professional development and innovation of services:

> Informally, knowledge is acquired in a way of going for coffee with people, clients, suppliers, to know what is happening in the marketplace, to build relationships and to share things around [. . .]. I personally join the professional bodies, I receive e-mails and magazine, updates of what is happening, keep informed with the network and thinking around. Knowledge gets down to individual, if not the organisation, to update knowledge because we are knowledge workers. I think it is important to keep it current (P5, CNS-Senior Manager).

In summary, findings from the multiple case studies show that the establishment of appropriate learning and communication mechanisms is critical to promote engagement in the knowledge acquisition process at the firm level. Availability of these mechanisms supports the identification of knowledge gaps and assimilation of new ideas, which, in turn, increases professionals' readiness to engage in the knowledge acquisition process.

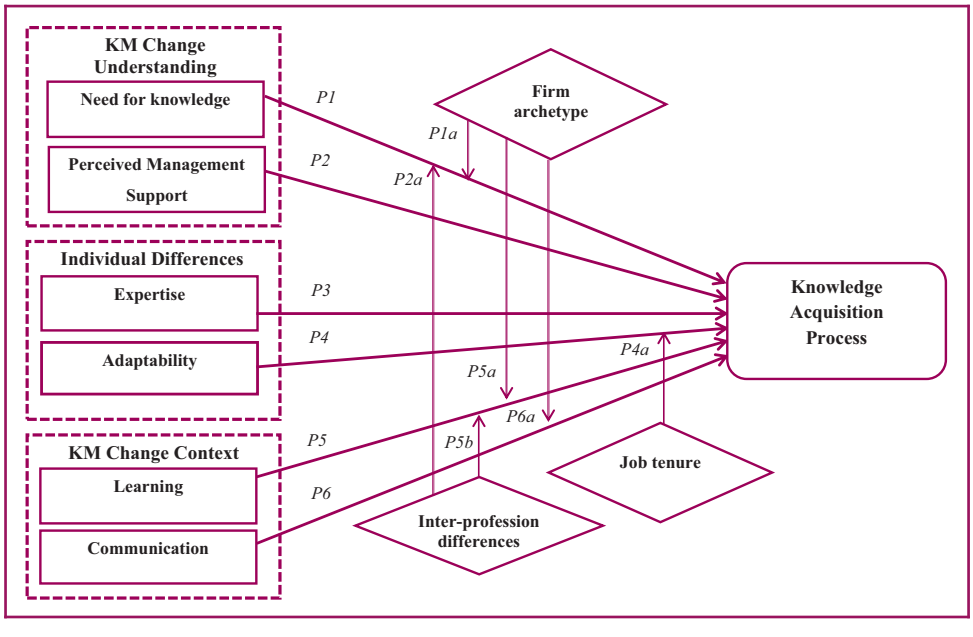
Summary of findings

Change readiness categories discussed above indicate the multilevel characteristics of the construct. Subsequently, these categories are grouped to represent the multidimensional nature of the change readiness construct. The categorisation process led to the formation of change readiness dimensions consisting of KM change understanding, KM change context and individual differences.

The need for change and perceived management support represents the KM change understanding dimension, while expertise and adaptability comprise the individual differences dimension. Additionally, learning and communication together represent KM change context. Linkages among these categories and dimensions in relation to the knowledge acquisition process represent a fundamental basis for explaining how multidimensional and multilevel change readiness construct shapes the knowledge acquisition process.

Figure 1 depicts the ways the above-mentioned change readiness categories and dimensions shape the knowledge acquisition process. The dimensions of "KM change understanding" and "Individual differences" represent individuals' change readiness that

Figure 1 Theoretical model of change readiness influences on the knowledge acquisition process



influences the knowledge acquisition process, while the "KM change context" represents the firm's change readiness that influences the knowledge acquisition process. These relationships, however, are affected by moderating factors such as firm archetype, dynamism of the profession and the job tenure of individuals. The section to follow will provide evidence and argue for these relationships.

Discussion

Individual's readiness for the knowledge acquisition process

Findings reveal four elements of individual change readiness that shape the knowledge acquisition process (i.e. need for knowledge, perceived management support, expertise and adaptability – Figure 1). Individuals represent knowledge sources and recipients; hence, their involvement in knowledge acquisition activities could affect their cognitive structures and practices. Adopting the change readiness perspective, individual readiness represents beliefs and attitudes that form a positive momentum to embrace changes in the knowledge management process (Holt *et al.*, 2007). Developing individual readiness, thus, involves the creation of motivation to engage in the process. Motivation for an individual's knowledge acquisition is portrayed by the individual's willingness and ability to acquire and utilise new knowledge; his/her motivation is shaped by attitudes towards the process (Gray and Meister, 2004; Pacharapha and Ractham, 2012). Similarly, findings from the current study suggest that individuals' motivation for knowledge acquisition explains their readiness to engage in the process.

Knowledge acquisition is a purposeful process which focuses on addressing knowledge loopholes in the prevailing knowledge base (Ranft and Lord, 2000). The relevancy of new knowledge to satisfy acquirer's knowledge loopholes is critical (Matusik and Heeley, 2005). From the innovation diffusion perspective, knowledge relevancy is important, where the acquired knowledge is consistent with the acquirer's knowledge need (Pacharapha and Ractham, 2012). However, assimilating new knowledge that does not necessarily align with the acquirer's existing mental model could be challenging (Desouza *et al.*, 2006). Further, willingness to acquire knowledge also increases if the individual perceives a higher value of the knowledge that is to be acquired (Ford and Staples, 2006). Knowledge acquirers seek knowledge that could increase the effectiveness of task performance (Pacharapha and Ractham, 2012). Some individuals also benefit from new knowledge by gaining expertise, and this gives them a sense of pride and power (Ford and Staples, 2006). Our findings indicate that professionals' motivation for acquiring knowledge results from the evaluation of their existing knowledge. Hence, they seek new knowledge that could address their knowledge deficiency. Consequently, recognition of the need for knowledge stimulates professionals' readiness to acquire knowledge from internal and external sources. Therefore:

P1. A greater understanding of need for knowledge enhances individuals' readiness for knowledge acquisition in PSFs.

A recent study shows that importance (or need) of knowledge positively influences both formal and informal knowledge acquisition (Hoe and McShane, 2010). Nevertheless, findings reveal that there are differences in the decision about the need for knowledge acquisition, and the extent of motivation for acquiring knowledge. In ACC, where there is high individual specialisation in a particular service domain, the decision about the need for acquiring new knowledge is the responsibility of the individual. In CNS and ENG, however, due to their bureaucratic structure and high integration at the top level, the need for new knowledge is commonly decided by teams or management. Additionally, findings also indicate that the firm archetype affects the need for knowledge. ACC and CNS offer multidisciplinary service to their existing and prospective clients. Due to the variety of service portfolios, professionals are well aware of the necessity to expand their knowledge base by engaging in knowledge acquisition activities. In ENG, however, the firm's operation specialises in maintaining a single type of aircraft for a major client. The lack of pressure to

expand the existing service scope thus reduces knowledge acquisition activities. This reduces the need to acquire new knowledge. It is proposed that:

P1a. The relationship in *P1* is stronger for a firm archetype with multidisciplinary operations.

Further, findings show that perceived management support is crucial for stimulating professionals' readiness to acquire new knowledge. This result supports existing literature, which suggests that knowledge acquisition is less likely without management commitment (Lopez and Esteves, 2012). When there is perceived management support, knowledge acquisition process is seen as part of management strategy. In an ideal case, management leads the knowledge acquisition initiative, which could increase the process's effectiveness (Lyles and Salk, 2006). Therefore, perceived management support could enhance employees' engagement in the knowledge acquisition process. On the basis of the above arguments:

P2. Greater perceived management support enhances individuals' readiness for knowledge acquisition in PSFs.

Findings further reveal that the effect of perceived management support in shaping readiness for the knowledge acquisition process could be influenced by the dynamism of the profession. For ACC and CNS, clients come from various operational backgrounds and industries. Changes in their clients' businesses affect these firms' service scope and capabilities. The advancement in the clients' industries and the consistent regulatory changes underlying the accounting practice requires continuous enhancement in the services offered. The acquisition of new knowledge is critical for professionals to be well-versed in changing regulations and to be capable of fulfilling clients' varying demands. Therefore, management in both firms is perceived to be committed to supporting knowledge acquisition initiatives.

In ENG, however, management's enthusiasm for supporting new knowledge acquisition is less apparent. This lack of support, as perceived by professionals, might be due to ENG's focus on its niche maintenance service. This highly concentrated service is concerned with ensuring that maintenance procedures are performed to the highest level of precision. With high-risk underlying aircraft operations, rigid regulations are imposed by the aviation regulatory agency. Therefore, there is minimal pressure to attain new knowledge due to the inflexible nature of maintenance service and infrequent changes in maintenance procedures. This situation may explain the perceived lack of management support for the knowledge acquisition process in ENG. Consequently, the lack of management support discourages professionals' initiatives in expanding their knowledge base. From an educational psychology perspective, individuals with a highly intellectual and demanding job, characterised by inter-dependency, non-routine and complex tasks, tend to acquire more knowledge and be involved in greater knowledge-seeking activities (Gray and Meister, 2004). On the basis of the above arguments, the dynamism of a profession could affect the way perceived management support shapes readiness for the knowledge acquisition process. Therefore:

P2a. The relationship in *P2* is stronger for professionals working in a dynamic profession.

Additionally, the availability of experts with relevant knowledge within the PSFs enhances professionals' readiness to acquire knowledge from each other. This situation is apparent in CNS. On the other hand, professionals in ACC demonstrate a high reliance on external sources of knowledge. Lack of expertise, thus, motivates ACC's professionals to seek new knowledge from external sources. These practices are aligned with the extant literature which suggests that there is a high tendency to acquire knowledge from a specific source when the knowledge source is perceived to possess a higher value of knowledge (Ford and Staples, 2006; Kang and Kim, 2010; Ryu *et al.*, 2005). Also, professional teams with developed expertise tend to rely more on internal expertise as a source for knowledge

acquisition and are less ready to acquire knowledge from external sources (Chandler and Lyon, 2009). Therefore:

P3. Availability of expertise enhances readiness among professionals to engage in the knowledge acquisition process in PSFs.

Effective knowledge acquisition requires the absorption and application of new knowledge (Kang and Kim, 2010). However, the absorption of new knowledge could be challenging, as the process requires the assimilation of new ideas into existing cognitive structures. Previous studies suggest that the development of individuals' absorptive capability, which is rooted in prior knowledge and experience, is critical in facilitating an individual's adaptation to new knowledge (Li and Zhu, 2009; Matusik and Heeley, 2005; Van Wijk *et al.*, 2008). Also, effective knowledge absorption depends on the individual's ability to adapt to changing cognitive structures (Pacharapha and Ractham, 2012). Therefore, findings show that prior knowledge held by professionals contributes to the development of the professional's absorptive capability which, in turn, enhances their adaptability to new knowledge acquired. Consequently, the professional's adaptability to a changing cognitive structure could improve their readiness to engage in the knowledge acquisition process. For these reasons, it is proposed that:

P4. Adaptability enhances readiness among professionals to engage in the knowledge acquisition process in PSFs.

Moreover, findings indicate that job tenure could influence a professional's adaptability to new knowledge. For instance, findings show that older professionals with longer job tenure who are contented with their existing knowledge are reluctant to assimilate new knowledge that changes their prevailing practices. Therefore:

P4a. The relationship in *P4* is stronger among professionals with shorter job tenure.

In conclusion, the need for knowledge and perceived management support represent two elements that drive professionals' understanding of the knowledge acquisition process. This study proposes that developing understanding of the process could stimulate professionals' readiness to engage in the knowledge acquisition process. Also, expertise and adaptability reflect professionals' abilities to engage in the process. These elements are categorised under the individual differences dimension of the change readiness construct for the knowledge acquisition process (Figure 1).

Firm's readiness for the knowledge acquisition process

A firm's context that fosters the knowledge acquisition process seems crucial. Findings show that the appropriate context for learning and communicating in the PSFs studied could enhance professionals' readiness to engage in the knowledge acquisition process.

Previous studies show that the absorption of new ideas through learning could increase performance and lead to innovative solutions (Andreeva and Kianto, 2011; Norman, 2004). A firm's learning is reflected in employees' learning activities (Chandler and Lyon, 2009). Employees could acquire new knowledge through learning from interactions with others, learning from experience and learning from technology-based knowledge sources (Ryu *et al.*, 2005). Also, firms could learn through internal adaptation of knowledge and from external knowledge sources (Zellmer-Bruhn, 2003). Similarly, findings show that a firm learns new knowledge by adopting various mechanisms for formal and informal learning. The establishment of an appropriate learning context fosters the activities of recognising, assimilating and applying new knowledge, which could improve readiness for the knowledge acquisition process in the PSFs studied. Hence:

P5. Learning mechanisms enhance readiness for the knowledge acquisition process in PSFs.

Ongoing learning, particularly through formal training, is emphasised in CNS and ACC. In contrast in ENG, apart from the initial formal training at the beginning of the employment,

subsequent formal learning is less emphasized. The differing emphasis on learning mechanisms for acquiring knowledge in these firms could be explained by two factors: the range of services offered and the nature of changes underlying the professional practice. ENG represents a specialist firm archetype that provides a niche aircraft maintenance service for a single client. This highly focused service requires professionals to concentrate on developing niche expertise for the client. For this reason, the need to acquire knowledge for the maintenance of other aircraft types is not needed. In contrast, CNS and ACC offer multidisciplinary service to their clients. The composition of clients from the various industries requires these PSFs to keep up with advancements in the industry to provide customised services for the clients' varying demands. Consequently, these firms emphasise the importance of a formal learning mechanism. Therefore, findings show that firm archetype, characterised by the range of services offered, could affect the way learning shapes readiness for the knowledge acquisition process. Thus:

P5a. The relationship in *P5* is stronger for a PSF archetype with multidisciplinary services.

Further, ACC and CNS operate in the accounting industry where changes to the standards and practices are common. Additionally, the changes in the various clients' industry backgrounds and business operations affect the services offered by these firms. These dynamic changes exert pressures on their professionals to keep their knowledge base current. A structured way to expand their knowledge is by implementing formal learning mechanisms. This formal learning mechanism is also essential for firms to adapt to the dynamic changes affecting the task environment (Chandler and Lyon, 2009; Zellmer-Bruhn, 2003).

On the other hand, routine tasks with infrequent changes in ENG's service scope and operation reduce the need for assimilation of new knowledge. Because safety is the main concern in the aviation operation, maintenance operations is governed by rigid regulations. In this situation, ENG emphasises informal learning through on-the-job training to sharpen the firm's professional expertise. This practice is particularly apparent for firms with a high service specialisation (Leiponen, 2006; Ryu *et al.*, 2005). It is proposed that:

P5b. The relationship in *P5* is stronger for PSFs operating in a dynamic profession.

Previous studies highlight that communication mechanisms, channels and intensity determine the effectiveness of the context for knowledge acquisition activities (Norman, 2004). Communication provides a platform for interactions that enables the creation of collective meaning for understanding others' knowledge (Pacharapha and Ractham, 2012). Rich communication channels, thus, foster interactions among knowledge sources and recipients and contribute to an effective knowledge acquisition process (Fong and Lee, 2009; Li and Zhu, 2009). Also, from a social capital perspective, a strong relational capital among knowledge sources and recipients, resulting from extensive communication, leads to a more effective knowledge acquisition (Van Wijk *et al.*, 2008). Similarly, findings indicate that a firm's communication context is critical for enabling interactions and transfers of new knowledge. The availability of various mechanisms for communication, including formal and informal, enables the acquisition of knowledge from both internal and external sources. These communication mechanisms could enhance professionals' readiness to engage in the knowledge acquisition process. Therefore:

P6. Communication mechanisms enhance readiness for the knowledge acquisition process in PSFs.

Further, findings also reveal that the adoption of communication mechanisms differs among PSFs, depending on their job setting. For instance, professionals in ACC are specialised in a specific service domain and are granted individual autonomy to make decisions. Tasks and engagements in a particular service domain are performed by one dedicated professional. In this individual setting, new knowledge is mainly acquired through direct communication with external knowledge sources. In contrast, clients' engagements and

maintenance tasks in CNS and ENG are performed in a team-based setting. Decisions are mainly made on a collective basis. The knowledge acquisition process in these PSFs largely involves interactions among professionals within the firm, through multiple direct and indirect communication channels. Therefore, there appear to be greater and potentially richer communication mechanisms in a team-based, rather than an individual-based, setting. It is proposed that:

P6a. The relationship in *P6* is stronger for a firm archetype with team-based orientation in the PSFs.

Conclusions and future studies

Although studies about readiness for knowledge processes exist, most studies either tend to oversimplify the change readiness construct or adopt KM success factors to represent readiness for KM (Rusly *et al.*, 2012). This study, however, developed and conceptualized readiness from a holistic perspective, both at the individual and organizational readiness levels. This study also considered the multidimensional characteristic of the change readiness construct to explain the phenomena, and situates this within the context of PSFs. The study, thus, proposes a comprehensive understanding of change readiness as an important construct to drive/enhance successful knowledge acquisition in PSFs. We believe this to be a significant contribution to existing literature.

Findings from the multiple case studies reveal the multidimensional and multilevel change readiness elements that affect the knowledge acquisition process in the PSFs studied. The findings propose that readiness for acquiring knowledge in these PSFs is shaped by individuals' (i.e. professionals working within PSFs) beliefs about the need for new knowledge and their perception of management support for the acquisition initiative. Additionally, professionals' capabilities in terms of expertise and adaptability represent the individual differences that determine the professional's readiness to engage in the knowledge acquisition process. Findings also suggest that firm-level elements, such as communication and learning, provide an appropriate context that stimulates readiness for the knowledge acquisition process. Moreover, the study shows other factors that moderate the relationships between change readiness elements and the knowledge acquisition process. These are firm archetype, inter-profession differences and demographical factors.

This study contributes to the KM literature by suggesting the importance of considering these change readiness elements in enhancing PSFs' knowledge acquisition process. By providing the empirical evidence for these linkages, the study offers a deeper understanding of the ways change readiness dimensions of KM change understanding, KM change context and individual differences shape readiness for the knowledge acquisition process.

The proposed theoretical model could be useful for practitioners looking for inputs into the formulation of successful KM strategy, for PSFs in particular. Notably, this study suggests that a successful process for managing knowledge should be seen as a change management process. This study emphasises the need to minimise the assumption that beliefs/understanding and capabilities can be easily changed or modified in the knowledge acquisition process. For successful knowledge acquisition and implementation, it is important for the individual and the firm to be change ready. This study reveals that knowledge acquisition is largely an individual-oriented process. Hence, a thorough assessment to recognise both individuals' and firm's change readiness elements in KM strategy is crucial for managing change, and for enhancing individual professional's contribution in the knowledge acquisition process. The study also highlights various other factors such as firm archetype, job tenure of employees and dynamism of the environment the firm operates in, that could impact on the knowledge acquisition process. These factors are often overlooked and need to be given due consideration by practitioners.

Findings are limited by the nature of this qualitative study. The study was conducted in the professional service context. Therefore, findings from this study might not be generalised to firms in other industries or operating in a different context.

Nevertheless, the findings suggest several avenues for future study. In addition to the individual- or firm-level relationships explored in this study, future studies could explore relationships between firms such as trust among both parties that could enhance their readiness to engage in the knowledge acquisition process. Such studies could complement insights from the current study and offer an extended explanation of change readiness at the individual, organisational and inter-firm levels. Future study could also assess the influences of change readiness in shaping other KM processes and in a different industry setting. Such studies may enhance the applicability of findings from this multiple case study to a larger context. A continuous effort to integrate change readiness assessment in KM research could result in a holistic understanding of the role of change readiness in mitigating the failure of KM processes.

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Further reading

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Appendix

Table AI Background of participants

Participant ID	*Position*	*Length of service in current firm (years)*	*Firm*
P1	Managerial – Director	4	ACC
P2	Operational – Accountant	10	ACC
P3	Managerial – Manager	4	CNS
P4	Managerial – Manager	4	CNS
P5	Managerial – Senior Manager	4	CNS
P6	Operational – Associate	4	CNS
P7	Operational – Senior Associate	3.5	CNS
P8	Operational – Senior Associate	3.5	CNS
P9	Managerial – Technical Supervisor	10	ENG
P10	Operational – Engineer	1.5	ENG
P11	Managerial – Development Engineer	4	ENG
P12	Managerial – Supervisor	13	ENG
P13	Operational – Engineer	13	ENG
P14	Operational – Engineer	13	ENG
P15	Operational – Engineer	1	ENG
P16	Managerial – Supervisor	5	ENG

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