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Abstract

Purpose – *The study aims to assess the influence of change readiness on the knowledge sharing process. This study proposes that readiness for knowledge sharing involves developing holistic understanding of the process through identification of individual and organisational readiness.*

Design/methodology/approach – *The study adopts a qualitative case study design involving three New Zealand professional service firms (PFSs). Using grounded theory analysis, categories and concepts of change readiness that shape the knowledge sharing process were identified. The linkages among these elements offer an explanation of how readiness for knowledge sharing is formed.*

Findings – *Findings show that beliefs regarding knowledge sharing and individual expertise determine individual readiness to share knowledge. Readiness for the process is escalated by instilling collective commitment for knowledge sharing. A conducive organisational context, which comprises communication, participation and learning, represents a firm's capability to implement the knowledge sharing process. Findings also highlight the moderating influences of firm archetype, inter-profession differences and knowledge nature in the interplay between change readiness elements and the knowledge sharing process.*

Research limitations/implications – *Findings reveal elements that motivate readiness for knowledge sharing from a change perspective. The propositions and theoretical model offered could extend understanding of the phenomena and lead to further studies assessing readiness for other knowledge management processes. The study involves three PFSs; hence, interpretation of the findings is limited within the scope and context of the study.*

Practical implications – *Findings contribute to the formulation of firms' knowledge sharing strategies by offering holistic insights into the importance of motivating readiness for knowledge sharing through consideration of multidimensional change readiness: individual and collective beliefs, individuals' characteristics and organisational context.*

Originality/value – *It is the first empirical study that seeks to develop theory how change readiness elements influences knowledge sharing in the organisation. To offer more contextualised findings, the study focusses on the phenomena of change readiness and knowledge sharing within the professional service industry.*

Keywords *Knowledge sharing, Change management, Knowledge management, Change readiness, Professional service firms, Knowledge-intensive industry*

Paper type *Case study*

Introduction

Knowledge is a key determinant of a firm's competitiveness and growth (Søndergaard *et al.*, 2007; Wang and Noe, 2010; Witherspoon *et al.*, 2013). Dynamic market forces require businesses to respond quickly by anticipating changes in clients' expectations. This has resulted in businesses focussing on the intellectual capability of employees. Firms with a greater knowledge pool, supported by an on-going knowledge management (KM) process, could sustain their competitive advantage.

Knowledge sharing is an important process for managing knowledge in organisations (Cockrell and Stone, 2010; Han *et al.*, 2010; Lam and Lambermont-Ford, 2010), and numerous frameworks for knowledge sharing process have been recommended (Wang

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and Noe, 2010; Witherspoon *et al.*, 2013). However, due to the complex nature of the process, knowledge sharing is yet to be properly understood. This study examines knowledge sharing within professional service firms (PFSs).

In the context of PSFs, professionals with longer work tenure potentially develop unique knowledge that can be translated into credible ideas and services. This knowledge is embedded within the professionals, and motivating them to share personal knowledge with others could be challenging. Nonetheless, without effective knowledge sharing, firms are unable to fully exploit knowledge possessed by existing employees. Organisations also face the risk of losing their intellectual capital when employees leave.

Previous studies show increasing failures of knowledge sharing within organisations (Laycock, 2005; Lu *et al.*, 2006; Matzler and Mueller, 2011). It is likely that many failures in knowledge sharing process are a manifestation of employees' unpreparedness to share knowledge. Consequently, the current study is aimed at unfolding issues in knowledge sharing process from a change readiness perspective in a professional service context.

The remainder of this paper proceeds as follows: the literature section focusses on current research in knowledge sharing. The next section discusses knowledge sharing from a change readiness perspective, followed by explanation of the importance of knowledge sharing in the professional service context. The paper then presents the research design adopted for the study. Findings and discussion that lead to the formulation of the theoretical framework are provided, and ends with some concluding remarks from the study.

Theoretical background

Knowledge and knowledge sharing

Knowledge initiates in individuals' minds. Such personal knowledge is of less value unless it is being disseminated and applied at the organisational level (Nonaka, 1994; Nonaka and Takeuchi, 1995). Knowledge sharing is a process that transforms individual knowledge into organisational knowledge (Cho *et al.*, 2007). In an ideal case, the sharing of knowledge enables individuals to learn and gain more knowledge, hence enhancing employees' skills and competencies (Cho *et al.*, 2007; Matzler *et al.*, 2008; Renzl, 2008).

Knowledge sharing also enables individuals' personal know-how to be linked to others' knowledge, blending and elevating knowledge to the organisational level. This leads to exploitation of organisational knowledge, thus positively impacting on firm performance. Literature suggests that knowledge sharing allows application of best practices, minimises costs associated with product and service development (Lu *et al.*, 2006; Wang and Noe, 2010) and enhances firms' innovative capability (Ipe, 2003; Matzler *et al.*, 2008). Further, the process also improves decision-making and problem-solving efficiency (Cockrell and Stone, 2010; Gagné, 2009) and minimises any loss of firms' intellectual capital in the long run. Additionally, knowledge sharing fosters implementation of other KM processes (Han *et al.*, 2010; Ipe, 2003; Lam and Lambermont-Ford, 2010; Wang and Noe, 2010; Yang and Farn, 2010). For these reasons, knowledge sharing is crucial for a firm's sustainable

competitive advantage (Cho *et al.*, 2007; Cockrell and Stone, 2010; Lin and Lee, 2006; Matzler *et al.*, 2011; Renzl, 2008; Søndergaard *et al.*, 2007).

Defining knowledge sharing

Because knowledge belongs to individuals, the sharing process depends on the individuals' willingness to share. From this viewpoint, knowledge sharing is seen as actions and behaviours performed by individuals in making personal knowledge available to others (Ding *et al.*, 2007; Ipe, 2003; Wang and Noe, 2010; Yang and Farn, 2010). From a wider view, knowledge sharing transcends an individualised process. Sharing is thus conceptualised as a transfer of knowledge from knowledge holder to recipient, and from an individual to the firm level (Cabrera and Cabrera, 2005; Lam and Lambermont-Ford, 2010; Yi, 2009). In contrast to this single direction of knowledge flow, some scholars have claimed that knowledge sharing involves social interaction. It represents a reciprocal process among two or more individuals who benefit from the process (Bock and Kim, 2001; Chen *et al.*, 2012; Cockrell and Stone, 2010; Nonaka and Takeuchi, 1995; Renzl, 2008). In this regard, sharing requires mutual exchange of knowledge, skills and experiences among individuals. Its implementation involves a dual process of knowledge donating and collecting through activities such as learning, observing, listening, asking and imitating (Bosua and Scheepers, 2007; De Vries *et al.*, 2006; van den Hooff and De Ridder, 2004; Yang and Chen, 2007). Articulation and disclosure of personal knowledge enables it to be elevated to form organisational knowledge. This enables knowledge absorption, as well as collaborative creation and application of new knowledge towards achieving a common goal (Andreeva and Kianto, 2011; Gagné, 2009; Ipe, 2003; Lin and Lee, 2006; Wang and Noe, 2010).

Despite the interchangeable use of the terms knowledge sharing, transfer and exchange, Wang and Noe (2010) proposed that distinctive definitions should be applied to the aforementioned processes. These scholars suggest that sharing involves the provision of knowledge, while exchange refers to the activities of seeking and donating knowledge. Knowledge transfer is more extensive, involving the contribution of knowledge by the knowledge source that is acquired and applied by the knowledge recipient. The different views on defining knowledge sharing also lead to various theoretical lenses being adopted in assessing the process.

Theoretical perspective on knowledge sharing, and factors influencing the process

Application of the KM concept in various fields, adopting different theoretical lenses and definitions, increases the complexity of KM assessment (Jones *et al.*, 2011). In a similar way, various perspectives have been adopted in the assessment of knowledge sharing. The early approach adopted a system-based perspective with a major interest focussing on designing systems that enable dissemination of explicit knowledge within the organisation. It was later discovered that the use of technology does not necessarily guarantee a positive effect on knowledge sharing behaviour (Lin, 2007; Lin and Lee, 2006; Søndergaard *et al.*, 2007).

Realising the complexity of interrelations between system and organisational setting in the knowledge sharing process, scholars have shifted their interest from system-based to human-based KM initiatives (Ding *et al.*, 2007). The knowledge sharing framework has been extended with integration of hard and soft elements underlying the process, which promotes the socio-technical perspective of knowledge sharing (Bock *et al.*, 2005; Lin and Lee, 2006; Søndergaard *et al.*, 2007; Yang and Chen, 2007). Mixed results were found with regards to the influences of these hard and soft factors on the process. For instance, Yang and Chen (2007) propose that a firm's technical capability has a stronger association with knowledge sharing compared to the organisational cultural capability. On the other hand, studies by Lin (2007), Lin and Lee (2006) and Søndergaard *et al.*, (2007) suggest that organisational factors are more influential on the knowledge sharing process than

technology. These differences in findings could be explained by the various contexts in which knowledge sharing process is implemented.

Because knowledge sharing involves social interaction, interpersonal and team relations become increasingly important. In this respect, knowledge sharing has been studied using social exchange, social capital, social network and social dilemma theories (Bock *et al.*, 2005; Cabrera and Cabrera, 2005; Yang, 2007; Yang and Farn, 2010). Findings from these studies highlight issues of incentives, reciprocity and social relationships as barriers or facilitators in the process of transferring individual personal knowledge into shared or common knowledge.

Further, the theory of planned behaviour (Ajzen, 1991) and the theory of reasoned action (Fishbein, 1979) represent the common theoretical lenses that are adopted to assess the influence of individuals' attitude in shaping intention and behaviour towards knowledge sharing (Cabrera and Cabrera, 2005). Some studies have also considered the self-efficacy element of social cognitive theory (Bandura, 1986), while few other studies apply self-determination theory (Cockrell and Stone, 2010; Gagné, 2009), personal construct theory (Ding *et al.*, 2007) and personality traits as possible factors influencing an individual's knowledge sharing intentions (Matzler *et al.*, 2011; Matzler *et al.*, 2008; Renzl, 2008). From these perspectives, individuals' attitudes, intentions and characteristics are seen as having a crucial role in determining knowledge sharing behaviour.

Despite extensive studies that have used different theoretical viewpoints to assess knowledge sharing, successful knowledge sharing is still a dilemma (Wang and Noe, 2010). Studies show that increasing individuals' willingness to share knowledge poses a great challenge for firms (Cabrera *et al.*, 2006; Ding *et al.*, 2007; Lam and Lambermont-Ford, 2010; Laycock, 2005). The fundamental issue lies in the fact that knowledge initiates within the individual. Conflicts of interest, knowledge hoarding and lack of psychological understanding are among the potential reasons for the lack of knowledge sharing (Becerra-Fernandez and Sabherwal, 2010; Cabrera *et al.*, 2006; Cho *et al.*, 2007; Matzler *et al.*, 2008). While individuals' knowledge sharing behaviour is considerably influenced by their motivation to make personal knowledge accessible to others, the motivational perspective is not clearly delineated in the literature (Cockrell and Stone, 2010; Gagné, 2009).

Motivation for knowledge sharing is crucial to stimulate positive attitudes towards the process (Witherspoon *et al.*, 2013). Chen *et al.* (2012), Gagné (2009) and Siemsen *et al.* (2008) have proposed the application of the motivational model in the assessment of knowledge sharing. Siemsen *et al.* (2008) applied the motivation–opportunity–ability framework, rooted in the work of MacInnis *et al.* (1991), to assess knowledge sharing drivers. Motivation is conceptualised as employees' propensity and willingness to share knowledge. Opportunity is referred to the organisational setting and environment that enables knowledge sharing, whereas ability is the individual's skills or knowledge base from which to share knowledge. Siemsen *et al.*'s (2008) study shows that bottleneck in of any of these three elements inhibits knowledge sharing initiatives. Likewise, Wang and Noe (2010) also show that motivation is important for knowledge sharing apart from individual and interpersonal characteristics and organisational context and culture.

Little effort, however, has focussed on understanding the antecedents or elements that form desirable attitudes towards knowledge sharing. Consequently, further work is required to reveal factors that positively influence attitudes and intentions towards knowledge sharing. There is an increasing interest among scholars to understand knowledge sharing from a change management lens (Bock and Kim, 2001; Lam and Lambermont-Ford, 2010; Small and Sage, 2006; Wang and Noe, 2010). This study proposes that to motivate individuals to share knowledge, a focus on instilling change readiness towards the knowledge sharing process is needed.

> **"Without effective knowledge sharing, firms are unable to fully exploit knowledge possessed by existing employees."**

Motivating and managing change in knowledge sharing process: understanding change readiness

Change readiness represents a positive movement towards the implementation of change, which is shaped by beliefs and capabilities to carry out the changes. The application of this concept in the KM field was initiated by Weiner (2009) and Holt *et al.* (2009). More studies, primarily quantitative, were then conducted that examined readiness for KM, largely on the basis of organisational KM critical success factors. The knowledge sharing process is claimed to be complex, and its implementation could be affected by various psychological and organisational factors (Cabrera *et al.*, 2006). However, quantitative findings offer limited explanation of change readiness influences on knowledge-related processes, with even less consideration of contextual influences.

Thus, the current study aims to extend understanding of change readiness influences on knowledge sharing through a qualitative study within the context of New Zealand's professional service industry. The study proposes assessment of both individual and organisational elements that shape change readiness towards the knowledge sharing process. It is argued that when an organisation is change ready, the social, structural and psychological factors enable knowledge sharing.

Knowledge sharing in the professional service context

PFSs are knowledge-intensive. Strong emphasis on the exploitation of intellectual capital of professionals is crucial for the development of high quality, knowledge-based services among PSFs (Fink and Disterer, 2006). Knowledge intensity and conformance to professional standards in the delivery of services are the main elements characterising PSFs' operations. Previous studies highlight that establishing a process for managing knowledge is particularly crucial for knowledge-intensive firms (Fong and Choi, 2009). For instance, a recent study by Andreeva and Kianto (2011) reveals that knowledge intensity of the firms' operation impacted all knowledge processes, with knowledge sharing representing the most influential process. It implies that high reliance on knowledge-centred activities in the PSFs' operation requires a greater effort to foster knowledge sharing among the professionals. This process is even more important for a firms' operation that emphasises teamwork for service accomplishment (Yang and Farn, 2010). Conversely, reluctance to share knowledge could have negative impacts on PSFs' knowledge development (Lu *et al.*, 2006). Despite the critical role of knowledge sharing in shaping and enhancing a PSFs' performance, however, firms are still struggling to motivate professionals to articulate and share personal knowledge (Witherspoon *et al.*, 2013). For these reasons, PSFs offer a useful context to understand the elements that stimulate a professional's readiness to share knowledge (from the change readiness perspective).

Research method and design

This qualitative study uses multiple case studies, and adopts an interpretive paradigm in extending understanding of the phenomenon of change readiness influences on the knowledge sharing process in the PSF context. To protect anonymity of the participating firms, all three cases are illustrated using pseudonyms. The first case, ACC, represents a small accounting firm that employs six employees and has been in operation for more than ten years. ACC focusses on accounting and business planning services to clients from the farming, manufacturing, construction and service sectors. These client portfolios include

small to large organisations, with annual turnovers ranging from thousands to seven million dollars.

The second case, CNS, is a branch of one of the leading international accounting firms, and has been in operation for more than five years following a merger with the leading international accounting firm. CNS employs nearly 100 employees handling a wide range of financial advisory and consulting services. With a diversified service range, clients of CNS consist of public and private companies, regional and local governments, non-profit organisations and individuals.

The third case, ENG, is a mid-sized engineering firm specialising in aircraft maintenance services. ENG employs approximately 50 employees and the work experience of interviewees ranged from 1-13 years. ENG's main client is a leading regional airline company.

Multiple cases provide an in-depth understanding of phenomena (Stake, 2006; Yin, 2009). Sixteen semi-structured interviews, each lasting between 45 minutes to 2 hours, were conducted in these three PSFs. The interviewees consist of professionals working at both managerial and operational levels, allowing for collection of data from multiple perspectives and enhanced data source triangulation. The interviews focussed on understanding participants' experiences about knowledge sharing activities in the firm and factors that they perceived important in stimulating their readiness to embark on the process. Open-ended questions were used to guide consistency of the questions asked, and probing questions were included in the interviews for clarification purposes. See Appendix 1 for examples of questions and probes.

Interviews were audio recorded and transcribed verbatim and, subsequently, analysed using a grounded theory analysis technique (Strauss and Corbin, 1990). This coding process led to the identification of concepts, categories and core categories. The findings are presented in the form of cross-case analysis, which offers in-depth understanding of the phenomena from multiple case perspectives. This contributed to the development of a theoretical framework explicating elements that shape change readiness for the knowledge sharing process. Applicability of the findings and the proposed framework are contextually bound within the professional service setting.

Findings: change readiness and the knowledge sharing process

The analysis of findings led to the development of concepts and categories of change readiness elements that influence knowledge sharing. Appendix 2 depicts conceptualisation of these elements as constructed from the findings.

Findings indicate that knowledge sharing is crucial to ensure knowledge continuity and to minimise the possibility of knowledge loss in the firms studied. For instance,

> This is a knowledge-based organisation and business and you need to transfer knowledge. Otherwise, when that person or practitioner retires or leaves the organisation for whatever reason, you will lose the knowledge. So, you've got to share it (P8, CNS-Senior Associate).

Findings revealed various change readiness elements that shape the knowledge sharing process in the firms studied. These elements appeared at both individual and organisational levels. The following section presents the findings from the cross-case analysis, arranged according to concepts derived from the analysis process.

Individual readiness towards knowledge sharing

At the individual level, understanding of the need to share knowledge and the benefits of sharing are critical to stimulate knowledge sharing readiness.

Need for knowledge. The major challenge in a firm's knowledge sharing effort is to encourage experienced professionals to disclose their tacit knowledge to others. This situation is obvious in the environment where new knowledge and skills are mainly created

through practical experience and on-the-job learning, such as in ENG. A similar challenge is observed in the top-tier professionals in CNS who handle consulting-related engagements that require an extensive application of tacit knowledge. The nature of tacit knowledge, being inseparable from its context and the knower, makes knowledge articulation even more difficult. Although these professionals have in-depth understanding of the domain, tacit knowledge will be disclosed only in the situation context that encourages such knowledge to be shared. Most commonly, knowledge is shared only if it is believed to be important and relevant in addressing gaps, loopholes or weaknesses in the current operational performance. For instance,

> We have a lot of tacit knowledge with some people on the floor who have been in the industry for about 40 years. They've got a lot of tacit knowledge; you can't always get that information out; unless in certain circumstances that occur where the tacit knowledge would be useful, that would never come out (P12, ENG-Supervisor).

Change benefit. Understanding the benefits from sharing knowledge is another crucial element that could motivate professionals to share knowledge. Participants of the study highlight that professionals are generally more ready to share knowledge if they are convinced that the knowledge shared will add value to the firm and, consequently, to their clients. Improvements in service quality, process transparency and the decision-making process, each contribute to the firm's operational efficiency. These are important benefits expected from knowledge sharing:

> How I bring the information back and share it, will determine how much it benefits us and the clients in the future (P5, CNS-Senior Manager).

> It is about making everything a bit more transparent. Instead of only one person knows about the problem, now more people know about the problem and someone needs to fix it, or else they won't be able to use it (P12, ENG-Supervisor).

Participants also expressed benefits expected from technology-based knowledge sharing. Recurrence of similar mistakes could be reduced, time to reinvent the wheel could be minimised and faulty decisions could be prevented through greater access to the knowledge shared through the information technology system.

Nevertheless, some professionals formed negative perceptions of the implications of sharing knowledge. These professionals believed that sharing personal knowledge could decrease their value and unique capability as employees of the firm.

> I think some people are protective of their information. They do not want to share, because it leads to power and to make them more indispensable (P8, CNS-Senior Associate).

Further, misalignment between the firm's knowledge sharing strategy and the individual-based appraisal system (i.e. individuals are not rewarded for collective knowledge sharing) are also claimed to inhibit readiness for knowledge sharing. This issue is more obvious in a large firm where stiff competition exists among professionals. These conflicting situations could be the result of unclear understanding of personal benefits derived from the knowledge sharing process.

> As a professional service firm, we are quite individual, in that the performance is according to charge per hours. Individuals could be quite protective of their knowledge. People have a particular agenda, because we are quite individual based, so why should we share knowledge with you (P5, CNS-Senior Manager).

Therefore, a clear understanding of the importance and benefits of knowledge sharing is crucial for fostering positive perceptions about the process. Moreover, besides positive beliefs and understanding of the process, individual characteristics such as expertise also shapes individuals' readiness towards the process.

Expertise. Findings show that individuals who possess relevant expertise demonstrate higher readiness to share knowledge. Participants in all firms shared their views on the importance of expertise in shaping professionals' engagement in the knowledge sharing

process. Experienced professionals with substantial expertise are capable of leading and facilitating the dissemination of knowledge concerning adaptation to new procedures or practices.

> If you look at the number of guys here, we have a lot of guys here [. . .]. They have a lot of deep knowledge that they can transfer to the labour floor to those with the technical knowledge but does not have knowledge about our aircraft [. . .]. So, therefore you need to have the guys with the expertise (P9, ENG-Technical Supervisor).

Nonetheless, despite their expertise, not all experts are ready to share their knowledge. A less dynamic work nature, for example, could limit sharing of expertise and affect the extent of experts' readiness to engage in knowledge sharing. Additionally, the turnover of experts weakens the firm's knowledge base, thus affecting readiness for the knowledge sharing process.

Fostering knowledge sharing is more challenging when it involves professionals at a higher level who deliver service that is largely characterised by tacit knowledge. Some of these experts resist sharing knowledge as knowledge is seen to demonstrate their influence in the firm.

> Some mechanisms hinder knowledge from being shared. It can happen more at a director or partner level in order to get a particular client. Knowledge becomes power at a corporate level. With power, you can influence people (P5, CNS-Senior Manager).

Thus, having expertise could positively influence the knowledge sharing process. However, readiness to share could be affected by the nature of the work performed and the types of knowledge possessed.

Organisational change readiness towards knowledge sharing

On the basis that knowledge sharing involves social interaction among individuals or teams, creating mutual understanding and effort at the organisational level is crucial for a successful knowledge sharing initiative.

Collective commitment to collaborate among employees in sharing knowledge at a firm's level is important. Collective commitment could be rooted in mutual understanding among professionals when engaging in the process. Findings imply that professionals are inclined to share knowledge if they perceive that knowledge exchange is encouraged among their colleagues, for example, during meetings.

> Generally, we stop and talk or brainstorm with a collective group as near as possible. So, we form a meeting fortnightly and we sit down here to discuss about where we are, where we are going, what we can do to improve things, and things that come out at the meeting room, it is a knowledge base (P11, ENG-Development Engineer).

Fostering mutual understanding about knowledge sharing is even more crucial in a team-based job orientation environment. In ENG, for instance, maintenance operates around the clock and involves different professionals. In this environment, fostering knowledge sharing collaboration among the professionals across different teams is necessary. These professionals are more ready to share knowledge if they believe that others are also collaborating in the process. Further, in the team setting, an individual team member's beliefs could influence collective knowledge sharing. For example, experienced professionals who are comfortable with prevailing practice could be reluctant to share knowledge and are capable of influencing other team members. By implication, their perceptions could affect the team's collective understanding, which could impair readiness to share knowledge.

> People's reactions to changes can also be influenced by one or two co-workers. Because of personality and negativity, they tend to be resistant to change (P9, ENG-Technical Supervisor).

However, in CNS, a large firm that experiences frequent changes in its practice and service scope, collective understanding outweighs any individual's influence in shaping the

knowledge sharing initiative. Resistance or negative influences seldom affect the team's belief. This situation is supported by a strong team and a change culture, which are deeply rooted in the firm.

> For people who are not responsible and do not share, it is a waste of time paying attention to that (P7, CNS-Senior Associate).

> If there are people with problems in it [the team], it does not take much complaining for others to start the change (P3, CNS-Manager).

Therefore, collective commitment is important to foster readiness for sharing practice. Yet, the distinctive operation of a firm may result in diverse effects of collective commitment in shaping readiness for knowledge sharing. Diminishing cooperative effort among professionals, on the other hand, could negatively affect a firm's readiness towards knowledge sharing.

> Probably one of the better times in this place's history is when we all worked together. But, it is not that much now. Now team work has definitely dropped off and hence tacit knowledge flow will decrease. You've got tacit knowledge, but they might probably not listen to you or talk to you (P16, ENG-Supervisor).

Furthermore, findings revealed that certain organisational conditions support knowledge sharing process and represent firm-level capability. If the firm is capable of undertaking the process, professionals could be more ready to contribute. This results in a sustained knowledge sharing effort. Results propose three organisational conditions: communication, participation and learning platform to foster readiness for knowledge sharing.

Communication, both formal and informal, enables interactions among professionals to gain understanding about new developments and changes in the firm. Consider the following quote:

> If you are transparent and people know what is happening, then they will work more with you rather than you drag them along (P7, CNS-Senior Associate).

Any important development of knowledge is commonly shared in a formal setting such as a meeting. Formal meetings could facilitate the exchange of knowledge not only within the firm but also involving professionals across the branches.

> Formally, knowledge activity is carried out through our meeting once a month if there are something new, new changes, whatever is relevant to what's going on (P2, ACC-Accountant).

> We have Friday morning meetings, call as Morning Prayer – more about social, leadership, information from other staff members, including from the Morrinsville branch [. . .]. Then, there is the Monday morning tea meeting, where we share around what is happening regarding workflow (P5, CNS-Senior Manager).

Additionally, issuing of written documents is an alternative means to formalise sharing of knowledge. This mechanism enables professionals to contribute and receive consistent updates on procedural changes. When team members are able to brainstorm and come up with a new solution, written documents are useful to transfer the externalised knowledge to other teams that are separated by distance or time. Written documents, therefore, serve as a mechanism for capturing and disseminating the tacit knowledge.

> We have engineering notices and basically you can find things that happened over the years based on the department's experience and this would be things that might not be in the technical publications. This is more on experience-oriented organisation. All this information will be put in the engineering notices and all records might be changing [. . .] we must ensure that we keep up with the engineering notices (P15, ENG-Engineer).

As the firm's size increases, the use of technology-based communication is critical to enabling knowledge exchange, as observed in CNS:

> Here, there are different ways knowledge is shared [. . .]. We have national email alerts that we can find out too. So, every time something changes, we get the email from the national office

> and we can find out about it too [. . .]. There are about twenty staff members at the moment in my department. So, it is very important that everyone shares the information. We discuss the important ways of disseminating information. E-mail is the main thing (P3, CNS-Manager).

Nevertheless, knowledge sharing does not necessarily occur formally. For instance, knowledge sharing among team members or a specific group of professionals occurs naturally through informal conversation. Such informal sharing is also used for solving *ad hoc* problems. The practice of informal sharing is crucial in small PSFs, with limited scope of service and expertise, such as in ACC. The Director emphasised this:

> We have meetings once a month, otherwise, if anything comes up we discuss in the tea room and that would be an informal meeting [. . .]. Because people are busy and I know not all emails are being read, we prefer to have a group session and sit down together. We transfer knowledge that way (P1, ACC-Director).

Moreover, informal mechanisms permit sharing of sensitive issues among the professionals. It is particularly important in a firm setting where communication between the operational level and top management is controlled largely by middle managers. This situation is obvious in a shift-based operation such as ENG. This can create communication gaps between operations and management. Additional efforts have been implemented to improve communication practices; yet, management claimed that available channels have not been fully utilised by professionals, resulting in past problems remaining unsolved.

> With the engineering network, there is reasonably open available information, a local system that anyone can jump into. There is a lot of information written down, multiple sources, from courses to HR. We have also just started the email system to the management in order to ask why something is happening this way and they can get the answer back [. . .]. We have a pretty good system that is in place to allow open communication. It is just the people don't use it or they make it troublesome (P11, ENG-Development Engineer).

Participation. Sharing involves knowledge contribution by firms' members. Hence, organisational conditions that foster employee participation are necessary to nurture the process. Findings indicate that inputs and ideas from employees are sought for the purpose of service enhancement and operation development. A lot of innovative ideas predominantly originate from bottom-up participation. Through this approach, management believes that professionals gain good understanding about firms' progress and develop their cooperation for sharing knowledge.

> In our team, people involved share what they think, give suggestion. What is important is suggestion from people in the team [. . .]. It is important rather than being told what to do. They feel some involvement in that and they are going to accept change more (P3, CNS-Manager).

> Some of, probably about 40 per cent of my workloads come from the floor. I actively encourage the guys on the floor, those people at the shop floor to come to me with problems and they know that I am going to consider any request. Just tell me what it is, and I will take notes. I always give them feedback. Generally, out of 40 per cent, 38 per cent are worthy for follow ups [. . .]. I believe we should do this often that way (P11, ENG-Development Engineer).

Nonetheless, a few professionals have a contrasting view. From their perspective, they are given limited opportunity to contribute opinions and ideas for decision-making, which sometimes affects their job responsibility.

While participation represents an important organisational condition that fosters knowledge sharing in CNS and ENG, the linkage is less apparent in ACC. The individual-based task orientation in ACC limits the need for participation. Hence, the influence of participation in triggering readiness for knowledge sharing could be affected by task orientation.

Learning. The ideal knowledge sharing process is where interactions among knowledge contributors and collectors permit understanding and the creation of new knowledge for application. Findings revealed that a conducive learning platform is crucial to encourage professionals to engage in the knowledge sharing process.

The availability of key experts in PSFs supports learning through internal training. Experts from various service segments are able to share their knowledge and industry updates with team members in the same functional area, including those from other branches. In a smaller firm, however, internal learning is constrained by the availability of expertise.

> The internal people who are competent about changes in the employment act. They will set up training and the team will go to each office to deliver training or conferences. Nationally, there are books and staffs to support. We also conduct internal training, put the team together, sometimes we put on slides during lunch time. So, it is from formal to informal procedures [. . .]. We have a continuous system; it is calendar base, roll out the courses by specific date (P6, CNS-Associate).

Moreover, in a complex firm's operation, establishing a learning platform through databases is effective in allowing more professionals to share and learn about best practices. However, there are two concerns regarding online learning platforms. First, it is claimed that the approach is seen as effective only to enhance readiness for sharing explicit knowledge. Further, sharing of knowledge through databases also raises the issue of knowledge security, which exposes the firm's resources to the risk of being misused or manipulated.

> I guess looking at both sides, from management it is about creating manuals, while on the floor it is much more about tacit knowledge (P12, ENG-Supervisor).

> I think there has been a move recently to try to put everything online, but then you also have to deal with security, put things online, access right when certain things go online (P7, CNS-Senior Associate).

Informal learning, however, is vital to sharing tacit knowledge. An informal learning platform permits the development of understanding through sharing experience while professionals work together, and is particularly crucial to facilitate on-the-job learning.

> We have two guys at 70 years of age, still working. One guy operates over there [at the hangar] and he has a lot of tacit knowledge that you can't document it. He is working with two young guys, so he is transferring that knowledge to them. Mentoring, sort of coaching, we got on-the-job training or OJT to allow them to learn how it is done (P9, ENG-Technical Supervisor).

Conversely, for some experienced supervisors, this informal mentoring, which has not been formalised as a structured learning platform, is seen as less effective for knowledge sharing. The approach is claimed as impeding readiness for knowledge sharing.

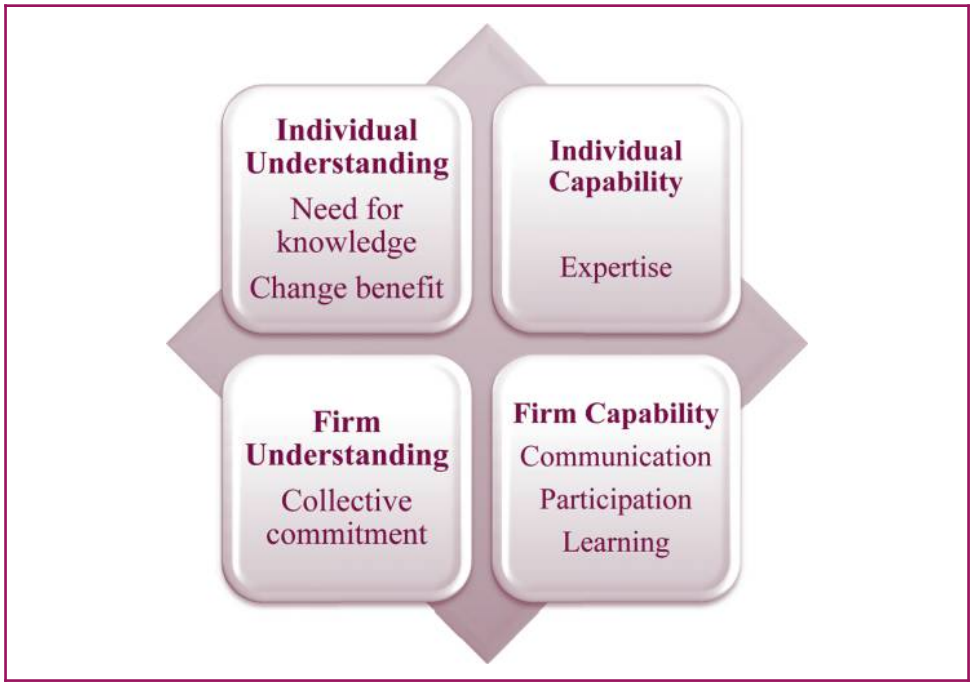
> Myself, I believe that mentoring is an appropriate tool to disseminate some of that tacit knowledge [. . .]. I still think formal mentoring is a good thing to do. You can always have one person that you can talk to. Whereas, if you are coming on a rotated shift, you will need to meet new people over a period of two weeks or so. You are not going to be comfortable talking to them, I think you need to make people comfortable in the company and that's making communication a bit easier because you have someone to talk to (P12, ENG-Supervisor).

Discussion

Multidimensionality of change readiness and the multilevel knowledge sharing process

Findings from the study are aligned with the multidimensional conceptualisation of change readiness. This comprises beliefs and understanding, as well as capability, in shaping a positive attitude towards knowledge sharing (Holt *et al.*, 2009; Weiner, 2009). The need for knowledge, change benefits and collective commitment represent the dimensions of knowledge sharing beliefs and understanding. Expertise, communication, participation and learning reflect the capability dimension of change readiness at the individual and firm levels. Therefore, as suggested in the literature, knowledge sharing requires the interplay between individual, interpersonal and organisational elements (Lu *et al.*, 2006). Figure 1 depicts the multidimensionality of the change readiness construct.

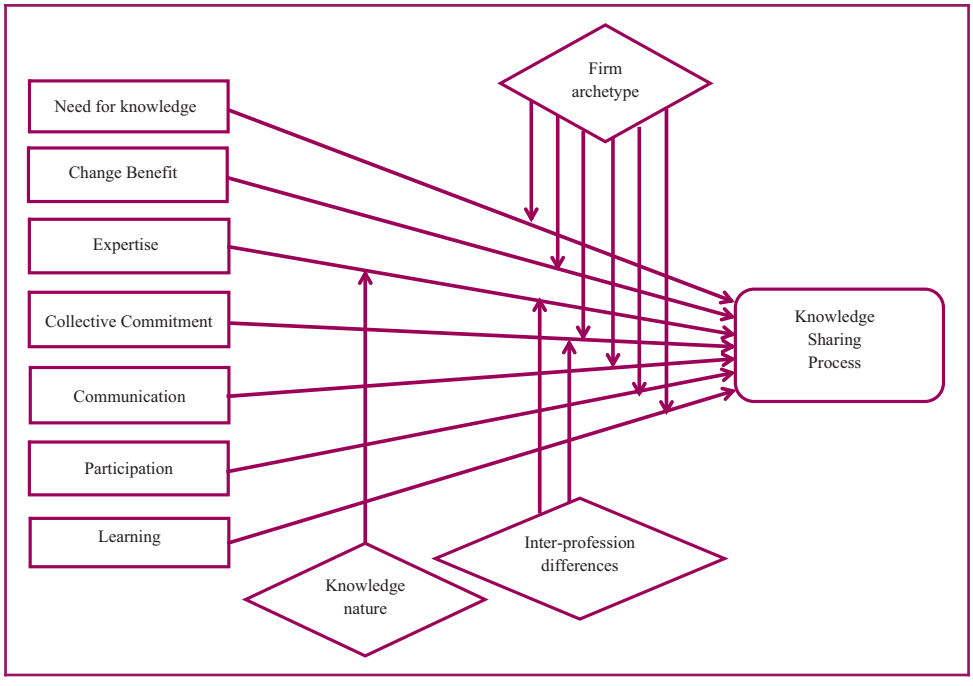
Figure 1 Multidimensionality and multilevel characteristics of change readiness



Furthermore, Figure 2 illustrates proposed linkages between these multidimensional change readiness elements and the knowledge sharing process.

Knowledge sharing in the current study is socially constructed. It is the process that enables exchange of knowledge, skills and experiences among professionals. Findings

Figure 2 Theoretical model of change readiness influences on the knowledge sharing process



from the study reveal that knowledge sharing is a multilevel process, involving cross interactions among individuals and teams. Hence, this study addresses the need to include a multilevel analysis of knowledge sharing as suggested by Lin (2007), Wang and Noe (2010) and Matzler *et al.* (2011).

The following sections discuss the multidimensional elements of change readiness and their influences in shaping readiness for the knowledge sharing process at individual and organisational levels in the PSFs' context.

Motivating readiness through individual and firm knowledge sharing understanding and beliefs

Previous studies acknowledge the importance of creating beliefs about knowledge sharing among individuals (Bock and Kim, 2001; He and Wei, 2009; Siemsen *et al.*, 2008). Motivating readiness through positive beliefs and understanding about the process is an effective approach towards nurturing intrinsic motivation to share knowledge. In comparison to extrinsic motivation such as financial rewards, intrinsic motivation is proven to be more effective in sustaining knowledge sharing behaviour (He and Wei, 2009; Small and Sage, 2006; Witherspoon *et al.*, 2013). Individuals could be intrinsically motivated to perform a particular behaviour if they believe that their knowledge is recognised to be valuable for their career advancement (Witherspoon *et al.*, 2013) and useful for others to learn. Additionally, if their own or their organisation's social norm expects them to share knowledge, then their readiness to contribute increases (Small and Sage, 2006; van den Hooff and De Ridder, 2004).

Aligned with previous studies, findings from this study indicate that professionals are more ready for knowledge sharing if they perceive the need to contribute to the process. If professionals believe that articulation of their knowledge to others is useful and needed, they are motivated to engage in knowledge sharing. Encouraging these professionals to externalise their tacit knowledge is difficult, unless they are convinced that their knowledge contribution is crucial and significant for solving problems and recommending improvements in the firm's operation.

P1: A greater understanding of the need for knowledge increases individuals' motivation for knowledge sharing in PSFs.

Nevertheless, differences in firms' settings influence knowledge sharing. In this study, firm setting, conceptualised as firm archetype, refers to structure, systems and values that characterise a firm's operation (Brock *et al.*, 2007). ACC represents a PSF with a classical archetype, in which its professionals are provided with high autonomy in handling a specific niche area. Each professional is fully responsible for making decisions within the niche area with less interference from others (Brock, 2006). This autonomy of professionals means a lesser need for sharing domain-related knowledge. Due to low interdependency among professionals in completing engagements, the need for sharing knowledge at ACC is less crucial from their perspective as when compared to CNS and ENG. For these reasons, the findings suggest that:

P1a: The relationship in *P1* is stronger for a firm archetype with high inter-dependency among employees.

Further, the literature claims that perceived benefits from the sharing of knowledge could motivate employees to engage in the process (Lin, 2007; Lin and Lee, 2006; van den Hooff and De Ridder, 2004; Witherspoon *et al.*, 2013). Both tangible and intangible benefits are identified as motivators for knowledge sharing. Nevertheless, perceived tangible benefits are claimed as inadequate and provide only short-term incentives to stimulate readiness for the knowledge sharing process (Ipe, 2003; Lin, 2007).

Findings from the study indicate that understanding of knowledge sharing benefits stimulates professionals' readiness to engage in the process. Aligned with the literature, professionals put greater emphasis on intangible benefits that positively affect their

job-related processes and, eventually, deliver value to their clients. Such benefits, including improved service quality, efficient service delivery and effective decision-making, all derived from the knowledge sharing effort, encourage these professionals to exchange knowledge with colleagues.

P2: A greater understanding of change benefit increases individual readiness for the knowledge sharing process in PSFs.

Nonetheless, despite the benefits of sharing, findings highlight concerns among some professionals with regard to negative implications from the process. These professionals are less ready to share knowledge if they perceive that their effort would offer less benefit to them personally and causes loss of power. This conflict of interest seems to arise from unclear understanding about implications of sharing knowledge. As mentioned, the adoption of appraisal systems in PSFs that emphasise individuals' performance creates a competitive culture among the professionals (Lin and Lee, 2006). This approach is incongruent with collaborative effort that is necessary to promote readiness for knowledge sharing. This suggests that:

P2a: The relationship in *P2* is weaker in a firm archetype emphasising individualised performance.

At the organisational level, successful knowledge sharing requires collective action and shared understanding that strengthens social interaction and influence among employees (Lin, 2007; Yang and Farn, 2010). Individuals are inclined to share knowledge if they believe that their colleagues will act similarly (Cabrera *et al.*, 2006; De Vries *et al.*, 2006; Lu *et al.*, 2006). This reflects the importance of relational capital in knowledge sharing, which suggests employees' readiness to share knowledge could be influenced by their relationships with others (Cabrera and Cabrera, 2005; Yang and Farn, 2010). Moreover, in PSFs that emphasise team work, two factors that represent team quality – team members' attitudes and abilities – are crucial in influencing a knowledge sharing attitude (Ding *et al.*, 2007; Lu *et al.*, 2006). Lack of commitment from other colleagues could decrease an individual's motivation to share knowledge, inhibiting readiness for knowledge sharing (Laycock, 2005).

Findings indicate that developing a congruent understanding of knowledge sharing could encourage professionals to collectively contribute to the process. Professionals are more ready to share knowledge if they believe other colleagues are also committed. Conversely, incongruent understanding will result in lower effort that limits knowledge sharing effectiveness.

P3: A greater understanding of collective commitment to share knowledge increases organisational readiness for the knowledge sharing process in PSFs.

Additionally, developing an understanding of collective commitment for knowledge sharing could be influenced by the firm's archetype. In ACC, despite high job specialisation, informal knowledge sharing among professionals regarding industry progress is common. Low bureaucratic control could also promote collegial decision-making, hence enhancing readiness to share knowledge. Nevertheless, each professional's concentration in a specific niche minimises interactions by colleagues from other service domains. Therefore, although understanding of collective commitment motivates readiness to share knowledge, the effect is less apparent in ACC. In CNS and ENG, however, completion of clients' jobs depends on the joint performance of responsible departments/teams. With this team-based functional structure, understanding other team members' commitment in sharing knowledge would have a greater impact on influencing a professional's readiness to engage in the process.

P3a: The relationship in *P3* is stronger in a firm archetype emphasising team-based orientation.

Although collective commitment is important in shaping readiness for knowledge sharing, particularly involving team-based settings, findings indicate that motivating collective understanding among professionals in the team could be challenging. The challenge lies in the fact that the nature of different professions may moderate the way collective commitment shapes readiness for knowledge sharing.

In comparison to ENG as a specialist firm needing minimal changes in the firm's operation, CNS's multidisciplinary service scope requires its professionals to cope with clients' evolving needs and frequent regulatory changes in the accounting practice. This implies that the application of new knowledge created through knowledge sharing is necessary to enable them to respond to changes. Due to the consistent need to exchange/share knowledge, most professionals believe that collective commitment is crucial in enhancing their readiness to engage in the knowledge sharing process. Therefore, dynamic changes underlying the accounting profession enhance collective commitment to share knowledge. This implies that,

P3b: The relationship in *P3* is stronger in a firm operating within a dynamic environment.

Enhancing knowledge sharing readiness through an individual's differences

Individuals' differences, represented by differences in one's ability, could be an important determinant of successful knowledge sharing initiatives (Lin, 2007). Unfortunately, there is little empirical research dedicated to assessing aspects of individuals' capability that contributes to their sharing of knowledge (Cho *et al.*, 2007). Past studies focus on knowledge self-efficacy as an important perceived ability that may increase the individual's self-confidence and motivate greater willingness to engage in the knowledge sharing process (Lin, 2007; Lu *et al.*, 2006; Siemsen *et al.*, 2008; Witherspoon *et al.*, 2013; Yang and Farn, 2010).

Findings suggested that expertise is a reflection of individuals' self-efficacy to engage in the knowledge sharing process. An individual's expertise represents an individual's proficiency in a specific knowledge domain. Cho *et al.* (2007) and Chen *et al.* (2012) propose that expertise influences an individual's knowledge sharing intention. In a similar way, findings highlight the importance of individuals' expertise in shaping professionals' readiness to engage in knowledge sharing. Expertise that they possess gives the confidence to disclose their know-how, and in leading others to share knowledge. These experts would be referred to, and their opinion used, to resolve issues arising within a particular domain in the firm's operation. In an ideal situation, those experts should demonstrate higher readiness to share knowledge. Therefore:

P4: Greater expertise enhances individual readiness for the knowledge sharing process in PSFs.

Nonetheless, findings show that professional dynamism could affect the way expertise shapes readiness for knowledge sharing. As stated in *P3b*, motivation to contribute knowledge could decrease over time in a less dynamic environment. A stable environment might be less challenging for experts due to infrequent changes in the work performed. They may assume that other colleagues could develop their own expertise through routine jobs performed with minimal advancement in the operations. Hence, there is less pressure to share knowledge. Therefore:

P4a: The relationship in *P4* is stronger in a firm operating within a dynamic environment.

Moreover, types of knowledge possessed by professionals also affect the way expertise shapes readiness for knowledge sharing. In CNS, the dilemma mostly involves professionals in managerial positions who are competing to be engaged in a major client's project. These professionals are considered experts who possess vast tacit knowledge through experience. From their perspective, knowledge tacitness and expertise increase their value in the firm. Consequently, explicating and externalising their tacit knowledge to

peers or subordinates could diminish their merit as an expert and decrease their personal influence. Therefore:

P4b: The relationship in *P4* is weaker where a high level of tacit knowledge is involved.

Fostering knowledge sharing readiness through a firm's change context

In addition to individual understanding and characteristics, the literature suggests that institutional factors/characteristics also influence knowledge sharing (Bock *et al.*, 2005; Cockrell and Stone, 2010; Lin and Lee, 2006). These characteristics are: organisational structure (Søndergaard *et al.*, 2007), culture (Cabrera and Cabrera, 2005; Witherspoon *et al.*, 2013) and climate (Bock *et al.*, 2005; Lin, 2007; Lin and Lee, 2006; Yang and Farn, 2010). Structure, culture and climate could be categorised as the *organisational change context*. This provides a platform for social interaction, and for the sharing of knowledge, skill and expertise. In this study, organisational change context is found to consist of communication, participation and learning, and these elements foster readiness for the knowledge sharing process.

In the knowledge sharing context, the nature of communication, intensity/frequency, quality and style determine the context for sharing knowledge (De Vries *et al.*, 2006; Lin, 2007; Witherspoon *et al.*, 2013). Formal, informal or a combination of communication types are applied in firms to facilitate the process. The communication type permits a consistent knowledge flow in the firm, hence reducing uncertainty and chaos. It also improves the feasibility of disseminating work-related and managerial knowledge among the professionals. Hence, the professionals could be more ready to share knowledge, as they are able to channel their ideas and opinions to the appropriate person in the most effective way. Therefore:

P5: Appropriateness of communication context increases organisational readiness for the knowledge sharing process in PSFs.

Aligned with the literature, (Gagné, 2009; Ipe, 2003; Sudharatna and Li, 2004), a preferred or appropriate medium that fosters knowledge sharing in each firm differs depending on the firm's archetype/setting. In ACC, we found little hierarchy, less bureaucratic control and a lack of process formalisation underlying the firm's operation. In such a setting, an informal communication mechanism is preferred to encourage the sharing of knowledge. In contrast, the complexity of operations, as exhibited in ENG and CNS, where emphasis is placed on the team and interdependency among employees, requires richer communication mediums for achieving communication purposes. From social capital theory, Cabrera and Cabrera (2005) propose that if completion of a task requires a group effort, a greater cooperation and collaboration from team members is crucial. Thus, high interactions among the team members through an appropriate medium could motivate greater knowledge sharing.

For ENG, maintenance service is performed in a teamwork setting involving diverse team members in each shift. The nature of the firm's operations demands another formal sharing mechanism, which is mainly through the use of written documents to ensure accurate updates and knowledge are shared effectively among teams.

In CNS, due to the complexity of operations and with more professionals, internally diversified functions and multidisciplinary service, communication mechanisms that permit high integration are essential. The establishment of online communication could complement the formalised means of sharing knowledge. Accessibility to these applications enables the pool of knowledge and updates to reach a wider group of users. This encourages more professionals to contribute in the knowledge sharing process. Following the above discussion, it is proposed that,

P5a: Formalised means of communication are more important for multidisciplinary and complex operation of PSFs.

Participation refers to the extent of opportunity to contribute in the decision-making process. Although literature discusses the importance of participation in fostering knowledge sharing, there is little empirical evidence of the relationship (Han *et al.*, 2010). Active employee participation improves the quality and effectiveness of knowledge sharing (Cabrera and Cabrera, 2005; Lin and Lee, 2006; Witherspoon *et al.*, 2013). Participation also enhances ongoing collaboration, in which employees are given opportunity to share their views and ideas that affect their jobs (Laycock, 2005). From a motivational perspective, previous studies have examined the indirect effects of participative decision-making on knowledge sharing intention and behaviour (Gagné, 2009; Han *et al.*, 2010). For instance, Gagné (2009) found that a job design that reflects an individual's autonomy and allows participative decision-making positively influences knowledge sharing intention. Likewise, Han *et al.* (2010) suggest that employee's participation could increase their psychological ownership and organisational commitment, which indirectly contributes to positive knowledge sharing behaviour. Participation in decision-making also implies sharing of power in the organisation that could mould positive cognitive, attitude and willingness to contribute in knowledge sharing.

Likewise, findings indicate that an organisational context that permits employees' participation could nurture knowledge contribution by professionals. Participation provides the opportunity for employees to contribute ideas to organisational decision-making, hence increasing the sense of belonging. Professionals also feel appreciated, as their opinions are valued by management. Consequently, participation enhances the organisational commitment and motivates professionals to share knowledge with colleagues. Therefore,

P6: Greater participation increases organisational readiness for the knowledge sharing process in PSFs.

Moreover, the effect of participation on knowledge sharing readiness is more apparent in larger firms such as CNS and ENG. The autonomous professional, as seen in ACC, implies that decision-making for the niche area is largely handled by the specialised expert. Therefore, participation from other colleagues concerning a particular service domain is less important, although informal collegial discussion is still practised. In both ENG and CNS, these firms' operations rely on the professional service quality provided by the shift team and the functional unit. In this archetype, opportunity to participate in the team's or functional unit's decision-making is crucial, as it could motivate readiness for sharing knowledge within the particular group. Therefore,

P6a: The relationship in *P6* is stronger in a firm archetype emphasising a team-based orientation.

Learning context is important in knowledge sharing initiatives (Lin, 2007). Successful firms encourage both individual and collective learning (Sudharatna and Li, 2004). Establishing a conducive learning context enables employees to learn and reflect, thus providing an environment that improves their capability to share, create and apply new knowledge (Yang, 2004). Therefore, the establishment of an organisational context that fosters learning could enhance readiness among professionals to engage in knowledge sharing. Previous studies suggest that both formal and informal learning platforms (Ipe, 2003) are necessary for the knowledge sharing process. In line with the literature, findings from the study indicate that the learning platform provides a context that enhances readiness for knowledge sharing. Therefore:

P7: Availability of learning context increases organisational readiness for the knowledge sharing process in PSFs.

Further, the findings suggest that the suitability of formal and informal platforms for learning depends on the firm's archetype in which the knowledge sharing process occurs. It is revealed that PSFs employing key experts in the field are more capable of establishing a formal learning platform, such as formal training. CNS, for example, is a large firm with multidisciplinary services and a large number of employees in each function. Most training

> **"Change readiness is enhanced if there is a greater understanding of the need for new knowledge, understanding of the change benefits, realization of the collective commitment, greater expertise, greater participation of employees, and when the appropriate communication context is used and learning context available."**

is handled by the firm's functional key experts. The structured formal learning platform through an online system enables CNS to engage their clients on the basis of standardised procedures.

In contrast, ACC is a small firm with limited experts. The firm relies on external trainings provided by regulatory bodies or larger firms as a formal learning platform for its professionals. Moreover, limited service scope and high individual specialisation implies a lesser need for establishing specific training across the service domains in the firm. ENG, on the other hand, is a specialised firm where most learning occurs through on-the-job practical experience. An informal learning platform is more suitable to encourage sharing of knowledge, particularly tacit knowledge among the professionals. This explains the infrequent formal training in the firm, as most effort for transferring knowledge occurs during informal interactions among the professionals on the maintenance floor. On the basis of these arguments, it is suggested that:

P7a: A formalised learning platform is more important for a firm archetype with multidisciplinary service.

In summary, the current study assesses the motivational factors in knowledge sharing by looking at how change readiness shapes positive attitudes and intentions towards the process (Wang and Noe, 2010; Witherspoon *et al.*, 2013). Extending suggestions by Witherspoon *et al.* (2013), findings from this study reveal that the internalised beliefs of change readiness, which consist of the need for knowledge and change benefit, influence individuals' attitudes towards knowledge sharing. As previously mentioned, scholars consider knowledge sharing intention as a reflection of willingness/readiness to share knowledge among individuals (Ding *et al.*, 2007). Additionally, findings also show the importance of the interpersonal element, particularly concerning the development of mutual beliefs, in stimulating collective commitment that shapes readiness for knowledge sharing. Moreover, findings support the need to consider the organisational environment in facilitating the knowledge sharing process. In this study, establishing an organisational context that is conducive to communication, participation in decision-making and learning, is vital to enhance readiness for knowledge sharing at the organisational level. Findings from the study offer a holistic understanding of how change readiness influences knowledge sharing and comprises individual and organisational beliefs and capability.

Conclusion

The current study aims to understand how change readiness shapes the knowledge sharing process. From a theoretical perspective, this study contributes to the existing literature of knowledge sharing from a change readiness perspective. The proposed theoretical framework (Figure 2) represents an integration of several theoretical perspectives, and offers a theoretical basis to understand change readiness as an influencer in the knowledge sharing process. Seven main propositions are developed that indicate the influences of change readiness elements in shaping the knowledge sharing

process. Change readiness is enhanced if there is a greater understanding of the need for new knowledge, understanding of the change benefits, realization of the collective commitment, greater expertise, greater participation of employees, and when the appropriate communication context is used and learning context available. Further, findings highlight the potential influences of firm's archetype, inter-profession differences and knowledge type in moderating the strength of the linkages of these change readiness elements and the knowledge sharing process. The assessment of this phenomenon in the professional service context reveals that consideration of the institutional context is important to extend the understanding of the complex nature of knowledge sharing process.

However, all empirical studies have limitations. The qualitative nature of this study limits generalisability of its findings to other industry contexts. Therefore, further work is needed to refine and verify the proposed framework in distinctive theoretical and practical contexts that enhance generalisability of findings to a larger population. In addition, the framework could change depending on the change nature experienced by firms in the process of knowledge sharing as suggested by Holt and Vardaman (2013). Moreover, a combination of different data collection techniques may offer a richer explanation regarding the phenomenon.

Despite such limitations, the findings presented here offer important contributions for practitioners and researchers interested in extending understanding of readiness for knowledge sharing. From a practical viewpoint, a holistic consideration of individual and organisational elements is essential for developing understanding and capability for the knowledge sharing process. The findings could provide guidelines for management to design and implement a holistic knowledge sharing strategy for their firms. Focus should be given to instilling professionals' beliefs on the need for knowledge and benefits of sharing, whilst promoting collective commitment among them to contribute in the process. Further, professionals with relevant expertise exhibit a greater potential to become part of a knowledge sharing champion within a particular knowledge domain. Development of appropriate communication, participation and learning contexts represent crucial readiness elements for fostering knowledge sharing at the firm level. For these reasons, a successful knowledge sharing initiative could be expected if professionals and organisations are psychologically and contextually prepared for the process implementation. Consequently, it minimises the possibility of knowledge sharing failures.

This study provides a platform for future researchers to test the suggested propositions, perhaps using a larger survey study of PSFs. Findings from the study promote a balanced approach for exploring the phenomena of change readiness in the knowledge sharing process with consideration of both individual and organisational elements. Likewise, findings could provide a basis for further examination and quantification of readiness elements' influences on the process. This study adopts a traditional view of change readiness lens in the assessment of knowledge sharing and emphasises the internal readiness aspects of PSFs and their people. Future study may consider a different theoretical lens such as assuming an organisation as a complex adaptive system where external factors and interactions among agents may also influence firms' capability to adapt to changes in knowledge sharing. Finally, the proposed framework and discussion in this study could serve as a model for extending the assessment of change readiness influences on other knowledge management processes.

Note

1. An earlier version of this study was presented in the International Conference on Business Management and Information Systems 2012, Singapore, 22-24 November.

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Appendix 1

Table AI Open-ended questions and probes

A. Knowledge management (KM)

1. Can you tell me what KM is for this organisation?

What are the important knowledge areas for this organisation?

2. How does knowledge related activities [knowledge sharing] are currently carried out in this organisation?

As a firm, how knowledge is managed [*shared*] *in this organisation?*

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

How others are informed about the changing procedures/practices in work processes for example?

B. CHANGE

1. Did the organisation experiences any changes in the way knowledge is managed in this organisation?

Can you recall a specific change in the way knowledge is managed and walk me through your experience regarding the changes?

2A. How ready the employees were when the changes in KM [KS] are introduced in this organisation?

How ready are people and the organisation when it comes to acquiring and implementing new knowledge?

Would you like to share more about the experiences that the company has, especially related to the employees' reactions to the changes?

No experience (Alternative)

2B. Based on your experience, *how ready are people and the organisation* if changes in KM processes are implemented in this organisation? Why do you think so?

How ready are people and the organisation when it comes to acquiring and implementing new knowledge?

3. What are the factors that you think important or expected to be important to support changes in KM processes in this organisation? Why do you say so?

Appendix 2

Table AII Conceptualisation of change readiness concepts

Core category	*Category*	*Concept*	*Concept definition*
Individual knowledge sharing understanding and beliefs	Individual change understanding	Need for knowledge change benefit	Perceived importance and relevancy of knowledge for sharing Perceived positive implications from knowledge sharing to professionals and firms
Firm knowledge sharing understanding and beliefs	Firm change understanding	Collective commitment	Perceived mutual understanding and effort among professionals to share knowledge
Individual knowledge sharing capability	Individual differences	Expertise	Degree of an individual's proficiency in a specific domain that represents personal capability to share knowledge
Firm knowledge sharing capability	Firm change context	Communication	Nature of medium for social interactions among professionals to share knowledge
		Participation	The extent of opportunity to contribute knowledge by professionals in the decision-making process
		Learning	Nature of platform for knowledge donators and collectors to interact and develop understanding about knowledge being shared

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