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Knowledge Management Practices and the Focus on the Individual

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ABSTRACT

This paper reviews the current knowledge management (KM) practices to examine the attention (or lack thereof) paid to the individual in managing knowledge in organisations. It identifies and reviews four key practices of KM - i.e., information technology, organisational culture and structure, communities of practice, and human resource practices - to examine how knowledge is interpreted, processed and managed, and the role individuals play in such interpretations, processing and management. The review shows that existing KM practices may be improved through an increased focus on the role of individuals (an individual-centric approach) in designing and implementing KM in organisations.

Keywords: *Communities of Practice, Human Resource Management, Individual, Information Technology, Knowledge Management, Organisational Culture and Structure*

INTRODUCTION

Knowledge management (KM) is seen as a catalyst for organisations to compete in the global market place (Mráček & Mucha, 2011; Palte et al., 2011). Since the 1990s, several industrialised countries, such as Germany, Japan, Switzerland, the United Kingdom and the United States, have developed into 'knowledge societies' where knowledge in its various forms is treated as the prime source of economic power (Campbell et al., 2012; Drucker, 1993). To manage knowledge effectively, organisations seek to adjust their core business strategies (Erickson & Rothberg,

2011; Murray, Millet & Syed, 2011). However, the costs of KM interventions exceed their benefits, and knowledge remains under-utilised in many organisations (EIU, 2007; Sveiby, 2007). We argue in this paper that a possible reason for the under-utilisation of available knowledge is the limited attention paid to the individual in processes and practices of KM.

Research in KM has acknowledged that individuals drive knowledge processes (e.g. Jennex, 2008; Nonaka & Takeuchi, 1995; von Krogh et al., 2000). Individuals are the true source of knowledge, and the creators of new knowledge, which is a crucial component of KM (Polanyi, 1998; Rechberg & Syed, in press). Literature on cognitive psychology

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has highlighted the role of human cognition as a necessary requirement to transmit and absorb knowledge (e.g., Albino et al., 2004). Nonetheless, there remains limited attention to the role of individuals in the discourse on KM (e.g. Nonaka & Peltokorpi, 2006; Rechberg & Syed, 2012; Swan et al., 1999), indicating an appropriation of individuals in KM, which may be one of the possible reasons for the lack of effectiveness of current KM practices. Moreover, KM decisions are, generally, made by senior managers in organisations, and empirical KM research mostly draws on the opinions of KM decision makers (Beijerse, 2000; Carrión et al., 2004; Fahey & Prusak, 1998; Riantoputra, 2010; Roomi & Mojibi, 2011). We argue that unless individuals are integrated into designing and implementing KM practices, it is unlikely that they will fully understand and participate in KM, thus limiting its effectiveness in organisations.

To map the role of individuals in KM, four key practices are identified in the KM literature: information technology (IT), organisational culture and structure (OCS), communities of practice (CoP), and human resource (HR) practices. Based on the literature review, a schema is developed to explain that an under-attention to the role of individuals may affect the potential and efficacy of current KM practices. The paper argues that unless the individual fully understands and supports KM practices, organisations cannot expect that knowledge will be effectively shared, created, or utilised in the workplace. The paper develops an individual-centric approach, where individuals are active participants in designing and implementing KM practices, which may in turn enhance KM effectiveness. In the next section, we define the key concepts used in this study, i.e., knowledge, individuals, KM, and knowledge processes.

CONCEPTS AND DEFINITIONS

Knowledge

There is no universal definition of knowledge. Zack (1999) suggests that knowledge can be defined by the purpose it serves; however, Fa-

hey and Prusak (1998) warn that developing a working definition for knowledge is problematic because of the multiple purposes for which the term is deployed. Knowledge is often interpreted as an asset. For example, 80% of organisations participating in the KPMG (2003: 8) survey on KM “recognise knowledge as a strategic asset”. Knowledge is an asset insofar that it is used by someone else than the original creator, and its ownership usually resides with the organisation (Rechberg & Syed, 2013; Tseng & Fan, 2011).

Polanyi’s (1998) theory on knowledge informs us that individuals are a key source of knowledge. Knowledge is a process or action of knowing an experience or associating with an experience through individual participation (Rechberg & Syed, in press). It may be tacit in nature and may be turned into explicit form through formal processing (Polanyi, 1998). Explicit knowledge can take the form of data and information, whereas tacit knowledge is embedded in individuals (Tywoniak, 2007). Knowledge, if made explicit, can be shared, transferred, and exchanged, which may lead to knowledge creation. Tacit forms of knowledge such as embrained (cognitive), embodied (physical), and embedded (unconscious) knowledge are of great value, but often difficult to share with others (Collins, 1993).

Knowledge Management

KM denotes a range of strategies and practices used in organisations to identify, create, share, retain, distribute, and enable adoption of insights and experiences, embodied in individuals and embedded in organisational processes or practices (Nonaka & Takeuchi, 1995; Jennex, 2008). Firms engage in KM to disclose, map and decide on sources of knowledge and organisational activities to enhance its utilisation (Jennex, 2005). The demand is for new knowledge to be generated and for existing knowledge to be leveraged (Wiig, 1997). Through KM, “business processes, information technologies, knowledge repositories and individual behaviour” are adjusted, so an organisation can ‘act as intelligently as possible’ (Eschenfelder et al., 1998

Figure 1. Knowledge forms, processes and practices

in Kakabadse et al., 2003: 79). KM is also “an action discipline that supports decision-making” (Jennex, Smolnik, & Croasdell, 2008: 2). It is “the practice of selectively applying knowledge from previous experiences of decision making to current and future decision making activities with the express purpose of improving the organisation’s effectiveness” (Jennex, 2005:4). As is argued here, such decisions may be improved through individual involvement.

The Individual

Individuals are the source for knowledge creation (Kaufmann & Runco, 2009; Polanyi, 1998). Peter Drucker (1993) suggests that employing knowledgeable workers will grant organisations value, as it is only through individuals’ cognition of knowledge that an organisation can perform. Individuals as a source of knowledge may include a company’s employees, managers, team leaders, business partners, investors or consultants. In the present study, the emphasis is on individual employees, who are often bystanders in designing and implementing KM practices, yet are a valuable resource and stakeholder in organisational knowledge processes. KM effectiveness is determined by its implementation at work where individuals’ participation is of paramount importance (Rechberg & Syed, 2012; von Krogh et al., 2000), since individual performance will, directly or indirectly affect that of the organisation (Jennex & Olfman, 2004). Treating individuals as an inorganic tool, not taking into account their motivations and aspirations, may limit the

efficacy of KM in organisations, as learning begins with the individual (Cao & Xiang, 2012; Murray, Millet & Syed, 2011). Integrating how individuals process knowledge may have a positive effect on organisational performance (Muhammed, Doll, & Deng, 2011; Song & Chermack, 2008).

Knowledge Processes

There is a logical sequence between how knowledge is interpreted (i.e., in explicit and tacit forms), the knowledge processes drawn on, and the practices to implement KM (See Figure 1). Whereas explicit forms of knowledge, such as information and data, can be transferred and stored through information technology (IT) (Benbya, 2008), explicit and tacit knowledge sharing is facilitated through supportive organisational structure and culture (OSC) (Wang & Noe, 2010). Communities of practice (CoPs) have been described to facilitate knowledge exchange (Inkpen & Tsang, 2005), and Human Resource (HR) practices are known to aid KM by acquiring and retaining knowledgeable individuals (Solman & Spooner, 2000).

Figure 1 illustrates the key question relevant to this paper: is there currently a disregard of the role of individuals in dominant KM practices, and does that disregard (if any) influence the effectiveness of the KM practices in managing knowledge ? The arrow in Figure 1, embedding a question mark, represents this question. Next, we review key KM practices and their consideration of the individual.

KM PRACTICES

This general review of the KM literature was conducted via the search tools of EBSCO host and ISIWeb. In light of the role individuals may play in processing knowledge, four key KM practices are identified in the literature. This section is structured in line with Figure 1, beginning with the IT practice, as it focuses on processing explicit forms of knowledge. We then review the OCS and CoP practices where both explicit and tacit forms of knowledge are meant to be processed, and lastly we discuss the HR practice, where the emphasis is on processing tacit forms of knowledge.

Information Technology: Knowledge Storing and Transfer

In the IT practice, the focus is on explicit forms of knowledge, information, and data that gain value if interpreted and put into context (Polanyi, 1998; Tywoniak, 2007). Through technology-based systems, information can be identified, extracted, codified, collected and then transferred for organisational use (Sung & Gibson, 2005). To process knowledge in this way, individuals' experience and ability to reflect on and make good use of stored information is needed (Davenport et al., 1998).

Information and communication technologies (ICTs) are one way organisations can cultivate and utilise explicit knowledge. Through video, phone conferences, and emailing, individuals can transfer, and in some cases share, knowledge. Additionally, corporate intranets, yellow pages, data warehouses and databases for data storage and e-learning may ease access to learning (Harun, 2002; Marwick, 2001).

The advantage of ICTs and online databases is that individuals can access or ask for information at any given time, independent of location. Furthermore, knowledge management systems (KMS) may support knowledge processes as information can easily be moved between two or more units (Alavi & Leidner, 2001; Jennex, 2005). Moreover, access to explicit knowledge may aid individuals in making informed deci-

sions, which may enhance corporate effectiveness (Benbya, 2008; Jennex & Olfman, 2004). Nonetheless, knowledge creation depends on how and when individuals use available information to enhance their understanding and develop new constructs. This process may not always be enforced by top management, particularly in the absence of employees' full support and understanding of KM.

Individuals may cause disruption when new technology is implemented, and an IT system may be of little value if individuals lack commitment and willingness to engage with it. Orlikowski (2000) describes the structuration processes occurring in the IT adoption process: it relates to how the ICT perspective may consider implications for KM at the individual level. Traditionally, the IT approach neglected individual employees' views (Han & Anantatmula, 2006). More recently, the attention has moved to adopting a 'user centred design' to IT; such systems have a 'Nutzungs Offenheit': a flexibility to choose how system may be adopted to fit employees' needs (Riemer et al., 2009; Richter et al., 2011). However, even where there is flexibility to adapt the system, where the management chooses the codification model to manage knowledge through IT systems (Hansen, et al., 1999), employee participation plays a key role in the success of the system (Riemer & Richter, 2010).

An exclusive focus on IT systems may lead to the neglect of other knowledge processes (Huber, 2001). For example, online conversations, video conferencing and instant messaging may lead to a decline in face-to-face communication, which is acknowledged as the best way to share knowledge (e.g. Di Gangi et al., 2012; Wang & Noe, 2010). Besides, the IT practices have limited ability to direct or motivate individuals to create, acquire, and use knowledge.

IT systems enable knowledge seekers to choose when to draw on information. How and why individuals use and create knowledge, nevertheless, remains unanswered (Buchanan & Huczynski, 2004). Also, knowledge is only valuable within its perceptive context. Codified, transferred or stored knowledge can neither

represent the true meaning, nor the full richness of knowledge (Sutten, 2001). For example, procedural information can be of value in one operational plant where individuals deal with old machinery. For a company elsewhere, there might not be such concern as old machinery might have been replaced. IT systems can enable knowledge transfer and are meant to be a part of the corporate infrastructure, but are not, per se, a KM practice (Al-Hawamdeh, 2002) as highly valuable, tacit forms of knowledge are neglected.

Organisational Culture and Structure: Knowledge Sharing

Scholars in organisational studies suggest that it is through OCS and the adjustment of organisational structures and routines that knowledge can be managed (Davenport et al., 1998; Lam, 2005). The focus in the OCS practice is on knowledge sharing where both explicit and tacit forms of knowledge are shared in a knowledge-centred culture (De Long & Fahey, 2000). For such a culture to take form, Chow and Chan (2008) point to the need for a shared vision, clear goals and trust. Changes in an organisation's structure and operations according to individual needs and circumstances, such as job allocation, management hierarchy and team working, may help in enhancing KM (Murray & Donegan, 2003; Yang & Chen, 2007). We describe how knowledge sharing can be enabled through organisational culture and structure respectively:

- Enhancing knowledge sharing through culture:** A supportive organisational culture may encourage individuals to share knowledge and engage in learning (Leidner, et al., 2006; Taylor & Wright, 2004). An obstructive culture, conversely, can act as a barrier to KM (De Long & Fahey, 2000). For an organisational culture that supports knowledge sharing, the commitment of top management is important (Jennex & Olman, 2004; Taylor & Wright, 2004; von Krogh et al., 2000). The organisation has to agree on a shared corporate language that

promotes knowledge sharing, and Davenport et al. (1998) advise organisations to communicate clear goals to all members of staff. Clearly communicated goals not only improve employees' understanding of the organisational vision, they also motivate employees to share knowledge (Baskerville & Dulipovici, 2006; Inkpen & Tsang, 2005). If the goals are not clearly stated, understood and shared, conflict and de-motivation may hinder knowledge sharing (Das & Teng, 1998).

It is important that an organisation develops a trust culture, to encourage and enable knowledge sharing (Chow & Chan, 2008). A trust culture strengthens the relationships among members of staff, and as knowledge sharing best occurs through face-to-face interaction, a trust culture can enable KM effectiveness (Ismail, 2012; Wang & Noe, 2010). Davenport and Prusak (1998) suggest that individuals like to share their knowledge when it promotes their reputation in the work environment. Inkpen and Tsang (2005) suggest that a transparent reward mechanism may positively impact the level of trust among employees, which in turn leads to a prevention of knowledge hoarding (Connelly et al., 2012). Through such practices, individuals can realize the significance of share their knowledge (Welschen et al., 2012). Bartol and Srivastava (2002) argue that team-based rewards and company-wide incentives (e.g., profit sharing, employee stock options) are likely to be instrumental in enhancing knowledge sharing within teams and across work units.

Knowledge processes are beneficial only if employees are committed to KM practices in their workplace (Wang & Noe, 2010). Developing an organisational culture that welcomes KM initiatives is complex and challenging. The difficulty lies in trying to standardise an organisational culture to strengthen commitment of all members of staff (von Krogh et al., 2000). Baba et al. (2004) show that culturally diverse employees may bring together divergent bodies of knowledge only after the employees recognise both the existence and

the value of their differences. The problem is that management practices tend to impose and control values, beliefs and cultural norms, which may lead individuals to withdraw from knowledge sharing activities (Alvesson & Kärreman, 2001). In this context, individuals tend to socially construct their own cultures, and hidden cultures can obstruct knowledge sharing (Inkpen & Tsang, 2005):

- **Enhancing knowledge sharing through structure:** Open workspaces can enable and encourage face-to-face interactions. In such an environment, ad-hoc and informal meetings between members of different organisational divisions can occur, which, in turn, can advance knowledge sharing. Earl's (2001) notion of organisational street is helpful in understanding how an open space can lead to spontaneous interaction among members of staff. Another is Nonaka and Konno's (1998) concept of 'ba', a space for knowledge creation.

Scholars have suggested reducing bureaucratic and hierarchical organisational structures to enhance knowledge sharing (Claver-Cortes et al., 2007; von Krogh et al., 2000). In terms of organisational hierarchy, employees' ranking and levels of seniority can obstruct knowledge sharing (Wang & Noe, 2010). Hedlund (1999) and Nonaka and Takeuchi (1995) argue that middle management holds the organisational structure in place and can promote middle-up and/or middle-down knowledge sharing. Poor management practices will, however, hinder individuals from sharing their knowledge (Syeiby, 2007). Alvesson and Kärreman (2001), therefore, suggest autonomy in place of authority to assist knowledge sharing.

Fluid job descriptions, job enrichment, job enlargement and job rotation may increase the likelihood for individuals to engage in knowledge sharing (Baskerville & Dulipovici, 2006; Wang & Noe, 2010). Lazarova and Taylor (2009), for example, examine boundaryless careers in organisations and how they enact the formation and deployment of organisational

knowledge. In addition, team-based work can influence individuals' willingness to engage in KM processes (Coa & Xiang, 2012). Where team members trust each other, knowledge can be shared (Griffith & Sawyer, 2010). Yet, it is not certain that trust will develop in teams (Germain, 2011), in particular, since it frequently is the management selecting them.

Organisations that attempt to facilitate knowledge sharing by adjusting their culture and structure need to identify what will lead individuals to share their knowledge. For example, to what extent do the corporate spaces and communication channels reflect individuals' needs and preferences to share knowledge? Indeed, tacit knowledge is not easily shared, and can be complex in situations of 'non-conformist thinking' (Baskerville & Dulipovici, 2006). Individuals do not always eagerly engage in knowledge processing, and they can choose when to participate in knowledge sharing (Kim, Lee & Olson, 2008). Commitment is not guaranteed, and issues of justice and knowledge ownership are to be considered when trying to facilitate knowledge sharing (Lin, 2007; Rechberg & Syed, 2013). Knowledge sharing is complex as it is an individual's attribute and personality that influence their willingness to contribute (Connelly et al., 2012). Where individuals are directed to share their knowledge, KM can stay unsuccessful. In essence, an organisation needs to explicitly integrate individuals in KM and take into account what motivates them to share their knowledge.

Communities of Practice: Knowledge Exchange

The concept of CoPs belongs to a broad body of literature, which is often labelled as a 'practice-based' approach, which deals with how individuals' cognitive learning is transformed to social and situational knowledge (Corradi et al., 2010; Lave & Wenger, 1991). CoPs are similar to knowledge sharing except that there is an active giving and receiving of knowledge, with knowledge residing in the transference from one entity to another (Brown & Duguid, 2001; Wang

& Noe, 2010). CoPs can cut across different divisions within a company or across different companies and countries (Cross & Cummings, 2004). Knowledge exchange, both within and across work groups, plays a fundamental role in contributing to an organisation's knowledge base (Argote & Ingram, 2000).

Lave and Wenger (1991) provide extensive discussions of individual knowledge and how it is related to the practice in which they operate. Exchanging knowledge can increase an individual's knowledge base, which can motivate them to engage in CoPs (Cox, 2005; Fang & Chiu, 2010). The learning that takes place through the exchange can then enhance the learning of the team and organisation at large (Di Milla & Birdi, 2009). According to Kirkman et al. (2011) external community leaders play an important role in enhancing CoP, particularly where task interdependence is high. The authors establish that CoPs designated as 'core' by an organisation (e.g., working on critical issues) are generally more effective than those not organised to serve a 'core' purpose.

Generally, individuals will engage in knowledge exchange if the CoP consists of knowledge that will enhance their own (Lavoué et al., 2011). The usefulness of the community and trust in the community leads individuals to seek knowledge (He et al., 2009). Therefore, it is important that individuals engaging in CoP share the same interests and believe in each other's expertise and abilities for the purpose of knowledge exchange (Fang & Chiu, 2010). For example, a product designer may seek advice from an individual experienced with building the product. This may help the designer determine how skewed the curve can be. The exchange occurs where the product builder will be provided with a design that has operations feasibility.

Organisations, as suggested by Kirkman et al. (2011), may facilitate CoPs, but should not pick or force individuals to participate, as individuals need to be genuinely interested and feel true sense of community so that knowledge can be exchanged (Davenport and Prusak, 1998; Fang & Chiu, 2010). In fact, organisations are recommended to listen to individuals in terms

of how knowledge can effectively be exchanged for CoPs. Koeglreiter and Torlina (2008: 220) explain that "individual knowledge workers and CoPs require a high level of autonomy to perform academic work", and that decisions on CoP practices may be shared between CoP members and management advancing CoP success.

Human Resource Practices: Knowledge Acquisition and Retention

HR practices can aid KM through acquiring and retaining knowledge by recruiting, selecting and managing skilled employees, and by enhancing employees' knowledge, skills, abilities, and other characteristics (KSAOs). As an organisation's performance depends on its individual employees' experience, education and skills, Solman and Spooner (2000: 337) argue that it is the HR department that is "well positioned to ensure the success of KM programs".

Through HR practices, an organisation's culture and values are reinforced and supported (Buchanan & Huczynski, 2004). The HR department can select the 'right fit' so that talented individuals with the right attitude for knowledge sharing and creation are recruited and trained (Chow & Chan, 2008). The selection of staff may be decided not only on the basis of knowledge, but also on their openness to process knowledge, and their willingness to share and enhance company values and goals (Cabrera et al., 2006). The HR function may establish a shared knowledge vocabulary to help employees experience a sense of belonging, which, in turn, may enable knowledge sharing and creation (Schepers & Van den Berg, 2007; Solman & Spooner, 2000).

It is through HR incentives that employee satisfaction may be achieved, which can reduce employee turnover (Koys, 2001). Scholars have analysed that the existence of a suitable reward system for individuals has an impact on the success of knowledge transfer (e.g., Lessard & Zaheer, 1996). The HR department can advocate fair practices, such as participative decision making processes on corporate prac-

tices and changes. Through the HR function, open informal communication may be promoted, along with free expression of ideas and opinions. Integrating and retaining individuals is important, as individuals are the source for knowledge creation, and organisations may not want to lose them (Lazarova & Taylor, 2009). Besides, the longer individuals are with a firm, the more likely and willing they may be to share their knowledge (Constant et al., 1994).

The HR department is also responsible for training, to promote a culture where individuals are encouraged to learn and share skills and values (Argyris, 2004). Scholars argue that the concept of organisational learning is a part of KM (Easterby-Smith & Lyles, 2003). Organisational learning is, however, only effective if integrated in a way that will motivate for learning to take place at the individual level (Argyris, 2004; Chow & Chan, 2008). Simon (1991) stresses that, since all knowledge processes are rooted in individuals, the role of individuals in organisational learning processes is of paramount importance. However, organisational learning strategies may not pay enough attention to individuals' role in the learning process, hindering organisational learning's effectiveness (Berends et al., 2003).

The HR function has to address what drives individuals' commitments and aspirations, for example, why they join or leave an organisation, and what it is that individuals need to willingly process knowledge. An attention to individuals' abilities, needs and contexts may assist in developing effective KM practices.

DISCUSSION

Since KM is about utilising knowledge for more than one individual, much of the KM literature has focused on KM at team or organisational level. This paper has highlighted the need for a greater emphasis on individual employees in the KM literature. The review shows that while much thought has been given to find ways to manage knowledge, the role of the individual in KM remains under-explored. The IT practice

tends to overlook tacit knowledge possessed by individuals, and decisions whether or not the organisation will install an IT system are made by senior management, not the individual employees meant to use it. The OCS practice gives no attention to individuals' voice in designing the organisation. CoPs may neglect individual's compatibility and the HR practices need to pay more attention to individual's motivation to process knowledge. Figure 2 maps how each of the four KM practices interprets and processes knowledge. The practices are placed in the Figure determined by their potential ability to effectively manage knowledge. The practices are organised according to their ability to facilitate that knowledge process. The light shaded boxes represent the current disregard of the individual in the respective practices, which may, in turn, impact KM effectiveness:

- **Information technology:** By processing explicit forms of knowledge, the IT practices draw on IT solutions. Figure 2 illustrates that for IT solutions to transfer explicit forms of knowledge in an effective way, they need to be designed according to individual needs. Addressing individual needs, and providing them with adequate tools for knowledge transfer, can motivate them to use the system, which may enhance the efficacy of an IT approach to KM. Organisations are, therefore, encouraged to identify how individuals use current IT systems, so that it can be identified what has to be changed and added for individuals to effectively and efficiently use, store, and transfer knowledge, i.e. through 'Nutzungsoffenheit' (Riemer et al., 2009).

IT solutions can transfer explicit forms of knowledge effectively by considering how and why individuals use the system. What has to be remembered, however, is that valuable tacit knowledge is difficult to be processed via IT, and processing explicit knowledge only, is a limiting practice. We, therefore, agree with Al-Hawamdeh (2002), who suggests that the focus ought to shift from developing smart IT

Figure 2. Focus on the individual in KM practices to advance KM effectiveness

systems, to one that develops the right tools for smart people:

- Organisational culture and structure:** Scholars in OCS (e.g. Davenport et al., 1998; Lam, 2005) have suggested helpful ways to change organisational culture and structure to enhance knowledge sharing, yet more research is needed to explain what will lead individuals to share their knowledge. Any attempt in a knowledge intensive firm to enforce conformity may be counter-productive. Instead, individuals deserve to have a voice in the decisions made on designing OCSs to enable free knowledge sharing.

It is important that KM is not interpreted as managing everything that a company is aware of knowing, but rather as a practice that will mobilise knowledge sharing and hopefully knowledge creation, which will then contribute to KM effectiveness. In this respect, organisa-

tions are advised to act as knowledge facilitators, providing the space and culture needed for individuals to meet and work together to improve knowledge processing:

- Communities of practice:** Exchanging knowledge in CoPs may increase individuals' level of knowledge, which, in turn, may have a positive influence on corporate operations (Cross & Cummings, 2004). Being a member of a CoP, per se, is not enough to advance KM effectiveness. Finding what motivates individuals to engage in CoPs to exchange valuable knowledge is important. Individuals will have to willingly participate in CoPs, of their own choice, because it is individuals' values, self-esteem, trust and curiosity that will determine the richness and quality of the knowledge exchange. If they find meaning in the CoP, such practices can be a valuable source for both explicit and tacit knowledge exchange;

- **Human resource practices:** The HR function in organisations deals with individuals directly. It can therefore greatly impact the effectiveness of KM (See Figure 2). The HR function is responsible not only to select the best fit staff for them, but also to support individuals in their own development. According to Pauleen (2009), it is individuals who are meant to be responsible for their own knowledge development, and the HR ought to help them on this journey. The HR function can listen to and address individuals' aspirations for training, incentives, security, job design, opportunities of promotion and motivation. By considering what drives individuals to commit to an organisation, and what leads them to participate in knowledge sharing and creation, KM effectiveness can potentially be enhanced.

An Individual-Centric Approach to KM

Our review of the four dominant KM practices suggests that the interpretation of knowledge greatly informs how knowledge is processed, which, in turn, determines the approaches taken to KM. The review has highlighted that knowledge is loosely interpreted to fit the purpose of the respective practices. In this process, the individual remains largely neglected. However, knowledge ultimately resides in the mind of individuals (Polanyi, 1998); it is individuals who create new knowledge, and knowledge creation is the most valuable knowledge process (Kaufmann & Runco, 2009). Although the literature is partially aware of individuals' role in the knowledge discussion, "only a few studies have empirically examined the role of individual personality or dispositions in knowledge sharing" (Wang & Noe, 2010: 120) or KM practices at large.

In light of this review, we propose an individual-centric approach to KM that incorporates individuals' views in the design and implementation of KM practices in an organisation. Without the participation of individuals,

knowledge cannot be processed and KM may not be practiced (Nonaka & Takeuchi, 1995; von Krogh et al., 2000). In fact, "the individual agent [is] the only agent capable of performing all aspects of knowledge development, retention, transfer and utilisation without the need for intervention" (Newman & Conrad, 2000: 6). For KM to be effective, the attention has to be on individuals as their KSAOs, and the way in which they create, share and put knowledge into action, will determine organisational performance (Song & Chermack, 2008). It has to be addressed how conscious and aware individuals are about their tacit knowledge base (Snowden, 2002), how well they can communicate their knowledge (Gertler, 2003), and what their personal attitudes are towards KM practices (Yang, 2008).

Willmott (2000) sees KM encompassing a conflict between the knowledge carriers and the firm: "the benefits of KM are often preserved solely at the level of the organisation or the decision-maker, rather than the level of the individuals in an organisation" (Quintas et al., 1997: 30). Yet, knowledge may be of value not only to the organisation, but also to individuals, and may affect their employability. The counter-argument is that processing knowledge is part of the work agreement, and even though this is a respective point to make to advance KM, individuals need to process knowledge willingly and effectively for an organisation to profit.

Jennex and Olman (2008, p. 37) acknowledge that "increasing decision-making effectiveness has a positive impact on the organisation". By means of an individual-centric approach to KM, organisations may incorporate individuals into the decision made on how knowledge is to be managed, to advance the effectiveness of KM decision making. Lawler (2010) explains that decisions made by managers may have limited effects if individual employees refrain from implementing them. Koeglreiter and Torlina (2008) suggest 'grass-root' feedback mechanisms; we suggest grass-root decision making processes so improvements can be made. Richards and Vazey (2008: 169) advise that decisions "should ... be made as close as

possible to the customer, including the employee decisions to add to, revise, and work with the corporate knowledge base.”

Davenport and Prusak (1998:108) argue that KM “must be part of everyone’s job” and Pauleen (2009) argues for a ‘personal KM’ where the focus is on how knowledgeable workers can maintain and improve their employability. Jarvenpaa and Staples (2001) see it as a motivator for individuals to hold ownership over their knowledge. And if individuals feel valued and supported in their knowledge processes, it is likely that they will eagerly engage in the workplace (Wang & Noe, 2010). Moreover, given that work knowledge is created and acted upon within an organisational context, organisational culture and reward systems may be aligned to support individuals to process knowledge.

In summary, an individual-centric approach to KM takes into account individual employees’ needs and insights to process knowledge. Organisations may wish to consider this approach to enable and encourage individuals to participate in KM, by choosing incentives and rewards wisely. The current trend towards specialisation means that organisations are likely to be interested in finding specialist workers who are willing to share, exchange, and create knowledge.

While the general review presented in this paper may not represent the entire debate on KM, we hope that practitioners and researchers will consider paying attention to the need for a shift from how to manage knowledge through KM practices, to how to develop best practices for individual employees to manage knowledge. Scholars may wish to conduct in-depth empirical studies in varied organisational and industrial contexts, to assess the potential and actual role individuals may play in designing and implementing KM. Questions such as under what circumstances individuals fully participate in knowledge processes, and what it is they currently need to participate in KM, may be relevant for research as well as practice. Issues of equality, knowledge ownership, social struggle, and empowerment are also relevant. Wang and Noe (2010:123) argue for integrat-

ing “traditional motivation theories such as expectancy theory and social cognitive theory” to better understand what brings individuals to share knowledge.

Moreover, generational differences in knowledge sharing can be studied to determine what causes and prevents knowledge loss. New entrants to the workforce are well-versed with social media to retrieve and share information. This may positively influence their motivation to share knowledge.

CONCLUSION

This paper has shown that an increased attention to the individual is essential to enhance the effectiveness of KM in organisations. The paper identified and reviewed four dominant KM practices to assess the extent of attention to the role of individuals and its possible implications for KM effectiveness. The review shows that diverse practices affect how knowledge is meant to be processed and managed. It shows that individuals, an important source of tacit and explicit forms of knowledge, are not adequately considered in current approaches to KM, a situation which may be rectified by adopting an individual-centric approach.

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