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Examining the Factors to Knowledge Sharing within an Organisational Context

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Abstract

In a global economy, knowledge may be a company's greatest competitive advantage (Davenport & Prusak 2000). As such, competition for this resource has driven an increased demand for *"a conscious strategy [by organisations] of getting the right knowledge to the right people at the right time and helping people share and put information into action in ways that strive to improve organisational performance"* (O'Dell et al. 1998). Thus, it is the aim of this paper to provide an investigative look at the factors influencing the willingness of employees to knowledge share (KS) within an organisational context. Separated into two categories; Organisational Factors and Socio-behavioural Forces, this paper demonstrates critical factors which influence the willingness to KS. The factors include, but are not limited to, culture, leadership, reward, information and communication technology, perception, working communities, reciprocity and the psychological contract (Suppiah & Sandhu 2011; Lin & Lee 2004; Jahani et al. 2011; Huysman & Wulf 2006; Schauer et al. 2015; Cabrera & Cabrera 2005; Lin & Lo 2015; Sharkie 2005). Explicating that it is critical for organisations to develop programs which can manage and develop the willingness to knowledge share (KS) beyond the point of the employee work-cycle.

Introduction

Knowledge and the understanding of knowledge has captured the attention of epistemologists for thousands of years. From Plato's *The Meno*, in 400 B.C., where he posits that knowledge is *justified true belief* (Southerland et al. 2001), to the seminal works of Davenport & Prusak (2000), who define knowledge within an organisation as *"...a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information"*, organisations' realise that the only thing that gives them a competitive advantage is how they use what they know and how fast they can create something new (Prusak 1996). Thus, organisations have become more knowledge intensive (Lin & Tang 2016; Swart et al. 2014). As a result, organisations now recognise the critical importance of KS and the nexus to competitive advantage (Alavi & Leidner 2001). Organisations now realise that '*knowledge is power*' (Ling 2011) and that knowledge is an important resource for the owner (Wu & Lee 2016). However, this vital resource exclusively lies inside the individual (Nahapiet & Ghoshal 1998). Thus, making it a difficult process for firms to engage in a strategy which both, enables the knowledge knower to part with their knowledge, and for managers to decide on the best motivational triggers, which will influence employees' willingness to share knowledge. To this end, this paper highlights the fluidity of factors influencing the willingness to knowledge share within an organisational context.

Theoretical Base

Knowledge can be viewed as dyadic in nature, having both explicit and tacit distinctions (Osterloh & Frey 2000). Using Polanyi's identification between tacit knowledge and explicit knowledge - or the "knowing how" and "knowing what" (Nahapiet & Ghoshal 1998), organisations can develop strategies to disseminate knowledge with appropriate motivational rewards. Tacit knowledge is seen as being more intuitive and is part of an individual's cognitive thought and perceptions (Suppiah & Sandhu 2011). It can only be acquired through

practical experience (Lam 2005), is not easily codified or accessed (Foos et al. 2006), hard to formalise and express to others (Nooshinfard & Nemati-Anaraki 2014), costly (Suppiah & Sandhu 2011), and is predominantly transferred through close proximity, over a long period of time; such as in master-apprentice relationships (Brien et al. 2013). Reportedly, 90 percent of the knowledge in any firm is embedded in peoples' minds (Smith 2001). By creating corporate tacit memory repositories, which will outlast the employee lifespan (Liao 2003), organisations can manage, maintain, and create knowledge (Andries & Wastyn 2012). Conversely, explicit knowledge is easily retrieved and communicated (Hau et al. 2012) in systematic language (Nonaka 1994) or codified documented knowledge which has built up in repositories throughout the organisation (Stenmark 2000). Making up the specific information and insights, explicit knowledge forms organisational rules and procedures (Loebbecke et al. 2016). Despite the seemingly polar characterisations of explicit and tacit knowledge, both are intertwined in achieving organisational objectives. Since, explicit knowledge provides the building blocks, while tacit knowledge provides the glue (Dhanaraj et al. 2004).

The act of sharing knowledge is personal, which results in a perceived cognitive value being attached (Swift et al. 2010; Smith 2001). In order to utilise the organisations 'knowledge holders' (Cabrera & Cabrera 2002), and develop a competitive advantage (Sharkie 2005), organisations must provide knowledge repositories, improve knowledge access, enhance the knowledge environment and manage the knowledge asset (Metaxiotis et al. 2005). Since KS is a process which occurs most often on a one-to-one basis, knowledge loss can lead to difficulties in the ability to analyse problems from different perspectives, and also the loss of collaborative connections built over time (Parise et al. 2006). In quantitative terms, a US Fortune-500 company lost in the region of $1million due to the loss of one experienced marketing manager, due to the manager leaving the firm (Ragab & Arisha 2013). Hence, to alleviate the need to 'reinvent the wheel', KS best practices are critically important to achieving and maintaining productivity and competitive gains (Dani et al. 2006; Myers 2015).

Knowledge Management

Knowledge management (KM) is the *"deliberate and systematic coordination of an organisation's people, technology, processes, and organisational structure in order to add value through reuse and innovation. This coordination is achieved through, creating sharing and applying knowledge as well as through feeding the valuable lessons learned and best practices into corporate memory in order to foster continued organisational learning"* (Dalker 2005). Companies are now adapting KM techniques to take advantage of the largely untapped knowledge assets within the organisation (Gupta et al. 2000). Firms understand that '*redundant knowledge*', which lies within the firm's employees, can hold the key to innovation and success. Redundant knowledge being individual information which can be created into knowledge at a later stage (Nonaka & Takeuchi 1995). It is this redundant knowledge which KM aims to foster and develop through utilising soft and hard systems within an organisation. The soft KM approach mainly looks at leadership, employees and the impact of company initiatives on culture and society. (Bloice & Burnett 2016; Sharkie 2005). This is achieved through the exploration of the tacit knowledge dimension and difficulties which can be encountered while trying to get employees to willingly share their internal knowledge (Martin 2004). Conversely, the hard KM approach principally looks at the capturing, storage and dissemination of explicit knowledge through varies tools such as varies electronic repositories available to the organisation (van den Hooff & van Weenen 2004; Ragab & Arisha 2013; Shin 2004). KM aims to expand on existing database systems, education or learning programs and human resource practices, (Davenport & Prusak 2000) which can aid in developing initiatives

which can alter the scheme of employees and their willingness to KS within and beyond the boundaries of the organisation.

Factors which Influence the Willingness to Knowledge Share
Research into the extant literature has highlighted the fluidity of the factors influencing the willingness to KS. Depending on time and space, factors can vary in strength and affect when it is related to motivating employees to part with tacit knowledge. Within this paper a succinct description of many of the factors have been merged under common headings. This is to provide a flowing typology of factors which can be easily understood by the reader. It is felt that this essay like format can aid practitioners, as well as scholars, interested in the field of knowledge management but particularly in the area of knowledge sharing. Figures 1 and 2 provide a 'signpost' of the factors found throughout the extant literature, with each word or phrase found within the main body of the text.

[Insert Figure 1]

Organisational Factors
Organisational Culture
Organisational culture expresses the core beliefs, value, norms and social customs that govern the way individuals act and behave. It is the sum of shared philosophies, assumptions, expectations and attitudes that bind organisations together (Singh & Kant 2008). Many researchers suggest that organisational culture has the most critical input into KM initiatives, a component of which is KS (Al Saifi 2015). It has also been suggested that organisational culture can have a higher determinant on whether employees are willing to share knowledge regardless of the directives coming from senior management (Suppiah & Sandhu 2011). Since KS is greatly influenced by organisational culture, the beliefs and values which the organisation hold, are of great importance to the understanding of employee behaviour and interaction (Alavi et al. 2005). These beliefs and values are subject to natural human conditioning. Whereby, according to some psychological theories, survival of both the evolutionary primate and that of humans depends on sharing and social interaction (Witherspoon et al. 2013). Tribal norms can be established, such as; same speech (in regards to technical jargon), shared interpretations, know each other's strengths and weaknesses, and trust in each other due to previous exchanges (Swift et al. 2010; Witherspoon et al. 2013; Al-Adaileh & Al-Atawi 2011). Therefore, organisational culture can be portrayed as an ongoing, dynamic interaction among basic assumptions, values and norms which manage knowledge effectively (Alavi et al. 2005). Sub-cultures can develop within the organisation but despite the involvement of sub-cultures within an organisation, research continues to support the proposal that organisation culture, as a whole, is an enabler in willingness to KS (Amayah 2013). However, research also posits that culture can also be a major barrier to KS (Alavi & Leidner 2001). Which corresponds with Ipe (2003) and Asrar-ul-haq & Anwar (2016), who suggest that organisational culture is increasingly being seen as a barrier to the sharing of knowledge. This is contrary to past hypotheses which suggest that organisational culture is one of the most important KS enablers (Lilleoere & Hansen 2011).
Furthermore, there is a growing understanding that the world is becoming an ever diverse community of different ethnicities and national cultures, which can be a major barrier to KS (Riege 2005; Narteh 2008; Voelpel & Han 2005; van Dijk et al. 2016). Within these sub-cultures, the motivation to share knowledge can be a perceived social identification requirement within the group (O'Neill & Adya 2007). Resulting in less knowledge flow due to the absence of a strong organisational culture, independent of ethnic sub-cultures which can be highly fragmented (O'Donohue & Lindsay 2009). However, it is argued that within an

organisation, radically different cultures can exist inside the unitary entity of an organisational culture (Standing & Benson 2002). With the presence of sub-cultures, the heightened need for solidarity within the whole organisation is a key determinant in KS practices (Teng & Song 2011). Thus, it has been posited that 'organisational culture' should be portrayed, as the dominant culture within the firm, in order to solidify KS practices (Wiewiora et al. 2013). Organisational infrastructure has also been cited as being a factor which must match and support the overall KM strategy and KS initiatives of the company (Singh & Kant 2008). The literature provides a holistic view to organisational infrastructure, in that, the research suggests that information and communication technology (ICT) (Martins & Meyer 2012; Amayah 2013), leadership support, and trust in the firm and its management, (Anantatmula & Kanungo 2010; Nonaka & Takeuchi 1995) have become more the priory for KS. With many companies moving away from the bureaucratic structures, which can be cumbersome and time consuming when trying to filter knowledge through their knowledge systems (Al-Alawi et al. 2007).

Leadership

Chester I. Barnard, describes leaders as using both scientific knowledge (explicit) obtained from logical mental processes (tacit) and behavioural knowledge (tacit) extracted from non-logical mental (explicit) processes (Nonaka & Takeuchi 1995). Leaders, like other employees, work within a social or clan like group and, *"as a social behaviour, an individual's knowledge sharing is inevitably susceptible to social influences arising from other people"* (Xue et al. 2011). Hence, it can be argued that leaders determine the culture of an organisation by articulating the shared values and goals of the firm (Evans 2012). Since the sharing of knowledge is effectively done on a volunteer basis, which can be difficult to articulate, it is seen as a prerequisite that leaders must provide on-going support and guidelines for effective sharing of knowledge (Riege 2005)**.** Strong evidence suggests that the leadership of an organisation has a significant influence on organisation members and their motivation to KS (Arnold et al. 2000; Lee et al. 2012). Anantatmula and Kanungo's (2010) research corresponds, that top management involvement is critical in driving successful KM initiatives, such as knowledge sharing. However, it has been found that leadership support is not the sole driver of KS within an organisation (Barachini 2009). Leaders themselves must reciprocate in KS and lead the way by demonstrating a commitment and an active role in the willingness to share knowledge (O'Neill & Adya 2007). Literature has also backed research in that, employees are more willing to share their knowledge if they believe upper management *values* KS (Witherspoon et al. 2013). Conversely, poor leadership can be seen as a barrier to KS initiatives (Asrar-ul-haq & Anwar 2016). However, there is no denying that management leadership and support play a key role in the facilitating of employees' willingness to KS (Nooshinfard & Nemati-Anaraki 2014). With supportive leadership, employees' psychological safety responses can be influenced and a higher feeling of safety can be achieved (Edmondson 1999), resulting in the employees' willingness to KS (H. F. Lin 2007b). Providing recognition of the employees' efforts to share knowledge can add to the engagement perception of management. By giving informal recognition to those sharing knowledge, management will increase knowledge reciprocation and KS activities within the firm (Shun et al. 2006). This recognition will further empower the knower, and subsequently can motivate them to share their distinctive knowledge. This feeling of gratitude toward the knower has been shown to filter through to other members of the firm and so increase the aggregate willingness to KS (Xue et al. 2011). Through perceived organisational support, job satisfaction has been shown to improve (Weaver 2015), which may result in the willingness the KS across differing organisational arenas.

Reward

Rewards can be used to directly or indirectly affect individuals' behaviour and performance to achieve organisational goals (Šajeva 2014). Thus, individuals are more likely to perform an action which is in-line with organisational objectives when the positive outcomes of required behaviour result in rewards perceived to be associated with that given action (H. F. Lin 2007a). Previous studies infer that KS cannot occur without some sort of reward mechanism (Andreeva & Kianto 2012). These mechanisms of reward come in two forms; intrinsic rewards and extrinsic rewards. Intrinsic rewards, may be defined as being psychologically or internally rewarding from getting pleasure, being altruistic or getting satisfaction from the work itself (Šajeva 2014; Lindenberg 2001). Accentuating, that altruistic behaviour of sharing knowledge can be considered to be a reward in its self, since individuals are, in-affect, self-rewarding by providing knowledge to others (Barachini 2009). Adding, the dangers of over-rewarding intrinsic behaviour, can hinder the amount KS since the intrinsic reward for sharing knowledge has been changed into an obligation (Bock et al. 2005; Cabrera & Cabrera 2005). Conversely, extrinsic rewards can be defined as the tangible rewards given to employees to motivate certain behaviour (Šajeva 2014). Rewards such as professional recognition, financial gain (Lam & Lambermont-Ford 2010), self-promotion to gain added reputation (Vuori & Okkonen 2012), job training and desirable work environments (Kickul et al. 2004). Previous studies on motivational rewards, for the propensity to share knowledge, have shown that the incentives, be they intrinsic or extrinsic, have been mixed (Nooshinfard & Nemati-Anaraki 2014). The motivation to affect the willingness to KS suggests that reward constructs may depend on the *'opportunity cost'* to both the knower and the receiver (Ford & Staples 2010). The opportunity cost being that of an action which you must give up when you make that choice (Mankiw 2000). Opportunity cost is also utilised in determining the ratio of the knowledge to be shared to the reward reciprocated for the said knowledge; with the outcome of gain to be maximised by the knowledge knower (Fiske 1992).

Within an organisation, rewards are generally given to the knowledge provider by way of organisational compensation, as a kind of external stimulus based on the exchange relationship between the employer and employee (Hau et al. 2012). Arguably, extant literature also posits that organisational rewards such as increased salary and bonuses to non-monetary awards such as promotions and job security do not have any significant influence on employee attitudes toward KS behaviour (H. F. Lin 2007a; Amayah 2013). Conversely, since KS is based on an individual decision, different people are motivated by different incentives (Mládková et al. 2015). This may result in different reward mechanisms per employee. However, due care and attention must be shown towards the extrinsic reward motivation provided by the organisation, as extrinsic rewards may have a significant negative effect on the sharing of knowledge, since extrinsic rewards may affect employees' internal motivation (Connelly et al. 2014). Largely, the literature suggests the greater the overall motivation – or reward - then the greater the willingness to KS (Liu & Fang 2010), regardless if it is intrinsic or extrinsic by nature.

Information and Communication Technology (ICT)

It is undeniable that ICT has had a profound impact on KM and the area of employees' willingness to KS across intra-organisation and the external organisation sectors. With ICT being highly useful enabling tools (Nonaka & Takeuchi 1995) in maintaining and recording explicit knowledge. However, it is suggested that, ICT as of yet lacks the personal touch which is capable of gathering and sharing the tacit knowledge which is embedded in every worker (Stenmark 2000). Through the increased development of ICT systems, temporal and special obstacles have been substantially reduced, which has greatly enhanced KS activities (Tohidinia & Mosakhani 2010). This has added to the studies into the necessity for ICT systems to be

integrated with social networks as part of a organisational culture initiative (Huysman & Wulf 2006). Thus, ICT have become everyday accompaniments to the human work assets (Liao 2003). Increasingly, ICT is seen as an intricate part of the overall KS experience along with culture and people. One of the possible enabler factors is the advancement in ICT over past decades. As artificial intelligence goes beyond the simple storing of and recycling of data, AI is entering a phase whereby it can provide verification and generalisation of stored data, which in turn can lead to the creation of new actionable knowledge. For example, the usage of hybrid neural networks and online analytical processing (OLAP) algorithms which can now capture, process, generate new knowledge (Tsui 2005).

There are clear advantages to ICT in regards to the speed in which our environment is changing both organisationally and privately (Tohidinia & Mosakhani 2010). This correlates with Cabrera & Cabrera's (2002) findings that only 7% of companies surveyed by KPMG showed technology as being a barrier to KM initiatives and procedures with regards to dispersing organisational knowledge across the time and distance barriers. Yet surprisingly, only two organisational groups tend to actively participate in using ICT: "techies" and "newbies" (Paroutis & Al Saleh 2009). However, literature also posits that knowledge hoarding can occur with the introduction of ICT systems (Goh & Hooper 2009). Sub-cultures can arise whereby vertical knowledge silos can limit the use outside of specific expert groups (Finnegan & Willcocks 2006), resulting in limited KS and an unwillingness to share knowledge across horizontal plains. Nevertheless, with advancements in technologies such as the advent of Web 2.0 systems, knowledge seekers may still utilise the ICT systems without actually contributing (Yan et al. 2014). This correlates with other findings, in that ICT systems are used for soliciting knowledge rather than volunteering it (Teng & Song 2011). This act of using without providing can be seen as a 'public good dilemma', which can be defined as the situation were everybody within the group can benefit from the source, regardless if they contribute or note (Kollock 1998; Cabrera & Cabrera 2002). Leading to a reduction in KS actions across ICT systems from diminishing motivational actions (Lam & Lambermont Ford 2010). However, this may also be associated with the ability or competence of the user, in that the behavioural intention might be present to KS but the perceived self-competence is seen as underdeveloped (Davis et al. 1989). Fear of possible ridicule, "fear to lose face" or fear of rejection may reduce the willingness to KS within the ICT systems (Ardichvili et al. 2003). Nevertheless, further research suggests that ICT systems can facilitate employees in sharing knowledge by reducing time and space and enhance virtual communities of practice by increasing the speed and extent of access to knowledge (Renzl 2008). In addition, research has shown that the degree of virtualness among peers will influence the KS processes amongst members of an organisation (Alavi et al. 2005). Literature further suggests that the most successful ICT system is one which can enhance the human networks (Cabrera & Cabrera 2005). Overall, extant literature and research indicates that ICT systems are growing in their influence towards becoming a *critical* factor and not just a tool in influencing the willingness to KS across many organisational domains.

[Insert Figure 2]

Socio-behavioural Forces
Perception
Perceptions are partially constructed and interpreted from what is already within the heads of the individual (Lueg 2014). In the context of the willingness to KS, literature suggests that there is a higher propensity to share knowledge if the perception of such an act is favourable to the individual (Goh & Sandhu 2013). This corresponds with previous studies which show that employees must perceive that the benefits for sharing tacit knowledge outweigh the

disadvantages (Holste & Fields 2010). Leaders and managers may influence perceptions of KS within the workplace since they tend to be individuals who support KS initiatives (Ford & Staples 2010). Thus, creating an environment where KS is seen as a public good will give the perception that KS is motivated by a moral obligation and for the interest of the community, not simply for the individual (Ardichvili et al. 2003). By adding external variables, such as a community perspective to KS, employees' beliefs towards the willingness to KS between peers may be influenced (Xu & Quaddus 2005). Such beliefs are expressed through perceived organisational support towards groups and individuals, welfare for staff, commitment, and overall job performance. Ultimately mitigating some negative organisational outcomes such as high job demands and negative effects of psychological and behavioural stressors within the organisation (Weaver 2015).

The change in behaviour towards knowledge sharing intention and behaviour, and an individual's internal scheme has been linked throughout literature to the theory of reasoned action (TRA) (Hsiu Fen 2007; Cabrera & Cabrera 2005). TRA looks at the attitude and behaviour a person has on performing a specific behaviour. This behaviour being determined by the attitudes towards that behaviour and the perception of subjective norms (Fishbein & Ajzen 1975). Subjective norm refers to beliefs of the existence of social expectations regarding a given behaviour (Cabrera & Cabrera 2005). Hence, the ability to encourage a KS community which maintains, supports, and perceives knowledge sharing as a public good will encourage the sharing of knowledge which will be internally driven. Perceptions can accompany many factors which relate to the willingness to share knowledge, such as; reward, culture, trust, leadership, and so forth; thus, it can be argued that the perception an individual attaches to a factor plays a pivotal role in that person's 'intention' to act.

Communities

Collaborations between individuals can forge 'knowledge links' and create social communities (Lam 1997). Reciprocity is a key component of collaboration which leads to the creation of new knowledge through individuals' sharing of experiences and knowledge among peer groups by executing collective tasks (Lee et al. 2012). Part of the KM requirement is the collaboration of individuals' and their ability to work together (Laycock 2005). However, collaborations fall short of developing into more meaningful relationships. Since, relations are built over the course of time and habitual actions, which create positive activities, which increase the willingness to KS (Pillet & Carillo 2016). As relationships develop, communities of likeminded individuals can form, resulting in the development of trust which has been shown to contribute to the willingness to KS (Ardichvili et al. 2003). One example of such a relationship is with Toyota, as mentioned by Dyer & Nobeoka (2000), whereby, Toyota built up bilateral relationships with suppliers through one-to-one knowledge sharing. Resulting in high trust levels across organisational borders.

Much research on the KS describes how Communities of Practice (COP) can nurture and develop further relations which can aid in knowledge flow between workers. COP are groups of people informally bound together by shared expertise and passion for cooperative innovativeness (Iskanius & Pochola 2016), where KS practices are the main foci of the community (Nooshinfard & Nemati-Anaraki 2014). Over past decades there is no doubting the proliferation of virtual communities, which have had a major impact on knowledge conscious organisations. Utilising intranet and internet communities in order to continue the flow of knowledge and encourage a KS intensive culture through such means as virtual "talk rooms" (Ardichvili et al. 2003), using Web 2.0 applications which aid in the social interaction of KS (Yan et al. 2014; Levy 2009). Corporeal expert clusters can bring together collegial groups

which form informal bonds (to encourage socialising) (Hume & Hume 2016). It is through these collegial/reciprocal bonds, communities can develop, which may open channels for more sharing of knowledge and increased *willingness* to share knowledge through commonalities fostered over the development of the organisational group. In effect, the organisation is generating its own clan like structure. This organisational clan control, attempts to influence employees by establishing common values, and philosophies in accordance with the organisational goal objectives of KS (Liang et al. 2010).

Reciprocity and the Psychological Contract
Previous studies indicate that the transfer of tacit knowledge between employees is based on long standing reciprocal relations facilitated through social networks within the firm (Holste & Fields 2010). Social exchange theory argues that KS occurs due the reciprocal exchanges between two or more individuals (Casimir 2012). The social exchange of knowledge occurs when there is the perception that the relationship is fair and honest (Terglav et al. 2016). Through the development of reciprocal relations, people make emotional investments with their peers and foster caring communities (McAllister 1995), which positively affect the willingness to KS (Hau et al. 2012). Sharing knowledge is described as a social act, and as such, social reciprocity is one of the findings important for relationship exchange (Teng & Song 2011). These reciprocal emotional coercions correlate with the findings of psychological contracts. Psychological contracts can be defined as individual beliefs of reciprocal obligations between the individual and the organisation (Rousseau 1989) and is only formed when an individual perceives that his or her contributions obligate the organisation to reciprocate in return (O'Donohue & Lindsay 2009). The willingness to KS is reliant on an individual's perception of their psychological contract which in turn determines their organisational citizenship behaviour (Sharkie 2005). Thus, it is argued that through higher levels of organisational citizenship behaviour, increased levels of KS can occur (Afsar 2016). Organisational Citizenship Behaviour being *"individual behaviour that is discretionary, not directly or explicitly recognised by the formal reward system, and that in the aggregate promotes the effective functioning of the organisation"* (Mittal & Dhar 2015).
Reciprocal exchange is fortified by the development of a psychological contract, which is based on the premise that both parties will do their part *and* that the relationship will be mutually beneficial (Arshad 2016). The psychological contract is based on unwritten and implied beliefs between both parties and what it is they have to offer and what each is obligated to do (O'Donohue et al. 2007). Unlike employer contracts, psychological contracts are perceptual and open to interpretation of the terms and conditions of obligations (Kickul et al. 2004). Thus, the early stages of the psychological contract formation may influence an employees' KS intention. This is highlighted by the research which posits, that a psychological contract is a form of scheme which once created becomes more automatic (Rousseau 1989). Thus it is suggested that the psychological contract plays a pivotal role in early developmental social norms towards KS behaviour and intention.

Conclusion
Organisations from across the globe have realised that they have entered '*the knowledge age*' of competitive advantage. They have a deeper understanding that the problem does not lie in the scarcity of the knowledge asset but rather the scarcity in understanding what influences and motivates the knowledge asset. Based on extant literature, this paper tries to provide some indications as to the factors which influence the willingness to share knowledge within an organisation. Throughout the paper it has been shown that KS and the management of knowledge transcends organisational boundaries. The ability for organisations to leverage tacit

knowledge in such a way that the knowledge holder feels that sharing knowledge is 'the right thing to do', is critical to future success. It requires continual attention and commitment. A commitment which cannot be falsely exerted. Since, if employees feel that this commitment is not true in nature then the loss in perceived trust can result in irreparable damage to knowledge intensive initiatives.

Figure 1 and 2 provide a dyadic illustration of the factors associated with the willingness to knowledge share. It is the very fluidity of the paper which highlights the ebbing and flowing of the factors influencing the willingness to knowledge share over time and space, which are of interest to the author. This indicates that there is no datum which can fully explain what influences one person to share their knowledge compared with another. There is however, the finding that the factors which influence the willingness to KS are heterogeneous in nature and that these diverse factors can be leveraged by organisations to enable the employees to transfer knowledge from one person to another or from one-person to a group of people.

Limitations/Future Research

The factors reported throughout this paper are limited to the extant literature examined for the paper. There are certainly other studies which may add or subtract from the factors illustrated herein. The paper does not suggest that each factor will have a negative or positive effect on employee willingness to KS. However, the author believes that, (to use Newton's third law of physics), that for every action there is an equal and opposite reaction. In the context of knowledge and the sharing of knowledge, every factor may have a different effect on a different employee and through the management of this human resource, the factors and the awareness of the surrounding micro and macro influences, organisations will be able to leverage and empower individuals to engage in the act of sharing knowledge.

Future research within the domain of knowledge sharing will look at structural equation modelling to correlate the relationship between the factors. This continual research is critical in the constant adaptation of the human psyche and will be a precursor for organisational initiatives and plans aimed at leveraging capturing, distributing and effectively using knowledge (Dalker 2005).

ORGANISATION FACTORS

ORGANISATIONAL CULTURE: Core beliefs, Value, Norms and social customs, Shared philosophies, Assumptions, Expectations and Attitudes, Tribal norms, Sub-cultures, Ethnicities and national culture, Social Identification, Solidarity, Organisational Infrastructure, Information and communication technology.

Leadership: Social influence, Shared Values and goal, On-going support and guideline, Top management involvement, Commitment, Upper management values KS, Recognition.

Reward: Intrinsic – getting pleasure, altruism. Extrinsic – financial gain, professional recognition, training, desirable work environment

Information and Communication Technology: Integration with social networks, Virtual sub-cultures, Advancements in technology, Public-good dilemma, Self-competence, fear to lose face, Reduction in time and space, virtual communities of practice

Figure 1. Taxonomy of Organisational Factors.

SOCIO-BEHAVIOURAL FORCES

Perception: The act of KS is favourable to the individual, Benefits out-way disadvantages, Leadership support, Public good, Beliefs, Organisational support, Reward, Culture, Trust, Theory of Reasoned Action, Subjective Norms

Communities: Collaboration, Reciprocity, Relationships, Trust, Communities of Practice, Knowledge sharing intensive cultures, Clans, Values, Philosophes

Reciprocity and the Psychological contract: Social networks, Fair and honest relationships, caring communities, social reciprocity, Individual beliefs, Organisational citizenship behaviour, Mutually beneficial, unwritten and implied beliefs.

Figure 2. Taxonomy of Socio-Behavioural Factors.

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