A Trust-based Framework for Enhanced Absorptive Capacity: Improving Performance, Innovation and Competitive Advantage

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Abstract: In rapidly changing and dynamic environments an organisation must have dynamic capabilities to sustain its competitive advantage among rivals. Knowledge Management research has investigated these capabilities. One such capability is absorptive capacity (AC) that can be described as the ability of an organisation to acquire, assimilate, transform and exploit knowledge gained from external sources to apply to commercial ends. Although AC has been extensively studied as a construct during the last two decades, survey-based empirical studies have only paid attention to the linear relationship between AC and performance measures. However, trust-related issues have not yet been studied with respect to AC operationalisation in organisations. This research seeks to offer a holistic approach for studying how trust influences AC as an antecedent as well as a fundamental ingredient, bridging knowledge sharing, transfer and absorption. This paper looks at how organisations can enhance their AC with more sophistication by establishing trust culture and by qualifying trust as an antecedent for enhancing AC. The basic premise of this paper is that enhanced absorptive capacity has four interrelated linkages. The first linkage relates to trust values and trust-worthiness leading to knowledge sharing. The second linkage relates to knowledge sharing and its antecedents, leading to knowledge transfer. The third linkage relates to knowledge transfer and its antecedents leading to knowledge absorption. The fourth linkage relates to knowledge absorption and its antecedents enhancing AC. The paper also argues that the effective enhancement of AC demands various enablers in each linkage, such as information technology infrastructure and social integration mechanisms. A framework is proposed to establish these linkages and to open further research avenues.

Keywords: trust, knowledge sharing, knowledge transfer, knowledge absorption, innovation, absorptive capacity

1. Introduction

In the twenty first century, people deal with large amounts of data and information. The data and information is not transformed into knowledge unless people are aware how they can extract value out of it. For this reason, knowledge management (KM) is an essential science to explore and research. KM has been an established discipline since 1991 (Nonaka, 2007). Furthermore, it is a reference to technology that offers to take care of the issues like finding-, classifying-, ensuring quality of-, storing-, maintaining-, using- and motivating people to contribute knowledge since knowledge is often not documented (Gu & Warren, 2004; Liebowitz, 1999; Turban & Aronson, 2001). Esterhuizen, Schutte and du Toit (2011) are convinced that an organisation that is “knowledge management proficient” is more innovative in nature and will perform competitively.

KM literature suggests that, among the capabilities that enable organisations to improve performance and gain sustainable competitive advantage is AC, the ability of organisations to acquire knowledge, assimilate, transform and exploit knowledge that is gained from external sources (Cohen & Levinthal, 1990a). Although, AC is widely researched in KM literature, yet a growing number of researchers and practitioners are focusing on AC as a measure of the ability of an organisation to gather external knowledge and disseminate/absorb it into the organisation processes and routines; towards innovation and competitive advantage (e.g. Cepeda-Carrion, Cegarra-Navarro & Jimenez-Jimenez, 2012; Nobeit, Simon & Parent, 2011; Ratten, 2004; Soosay & Hyland, 2006; Tortoriello, 2006; Volberda, Foss & Lyles, 2010). Furthermore, Von Krogh (2000) asserted that merely gaining the knowledge is not a benefit for the organisation. It should be shared among individuals, groups, functions or systems in that organisation.

Trust is a construct identified by the KM literature that enables knowledge sharing (Huotari & livonen, 2004) and transfer mechanisms. Trust is a “tacit foundation for relationships” and has been widely discussed in organisational context and ethical agreements (Baumard, 1999). Furthermore, trust influences AC and vice versa. Organisations that are more trust-focused, are more likely to have a high level of AC (Ratten, 2004). This research will therefore contribute to theory by increasing the understanding of trust-AC linkage.
This paper draws from KM literature and proposes a set of linkages between trust, knowledge sharing, knowledge transfer, knowledge absorption and enhanced AC, along with their antecedents and enablers. The first linkage relates to trust values (i.e. propensity to trust) and trust-worthiness as antecedents to knowledge sharing. The second linkage relates to knowledge sharing (i.e. organisations’ knowledge sharing culture, activities and infrastructural support to share knowledge) and knowledge sharing antecedents (i.e. the traits and factors that need to be in place before knowledge sharing is formalised) as antecedents to knowledge transfer. The third linkage relates to knowledge transfer (i.e. organisations’ knowledge transfer culture, activities and infrastructural support to transfer knowledge) and knowledge transfer antecedents (i.e. the faith, attributes, processes and activities that need to be in place before knowledge is formalised) as antecedents to knowledge absorption. The fourth linkage relates to knowledge absorption (i.e. the functioning of the four absorptive capacity dimensions) and knowledge absorption antecedents (i.e. functionalities, environment, culture and enablers that need to be in place for effective knowledge absorption) as antecedents to enhanced absorptive capacity. The conceptual framework is shown in Figure 1.

**Figure 1: Conceptual Framework**

### 2. Conceptual framework

#### 2.1 Absorptive capacity

AC is a well-established capability of an organisation because it is embedded in knowledge, processes, people and culture. AC identifies, assimilates, and exploits the external knowledge to commercial ends (Cohen & Levinthal, 1990a; Zahra & George, 2002). Importance is given to external knowledge because inventions are mostly due to the borrowing of knowledge rather than innovations (March & Simon, 1958). Furthermore, AC is a construct to integrate external knowledge and it is the capability of applying external knowledge to commercial ends (Van Den Bosch, Wijk & Volberda, 2003). Moreover, by studying the complex linkages between the “properties of knowledge, firm’s AC, and innovation performance”, Wang and Han (2011) concluded that if an organisation possess higher AC, relationship between its knowledge properties and innovation performance will be more pronounced. Therefore, AC is the “quality which enables knowledge to be converted into new products, services or processes to support innovation” (Cepeda-Carrion, Cegarra-
Considerable research has been performed about AC in the last two decades. However, few, if any, attempts have been made to study AC from an operationalisation perspective (Noblet, Simon & Parent, 2011), in order to propose a roadmap to enhance AC. This study therefore contributes to further understanding of AC enhancement. We propose a framework as a guideline to achieve gradual enhancement in important linkages between trust, knowledge sharing, transfer, absorption and AC enhancement.

2.2 Trust

Trust is an established, yet diverse field of research (Bachmann & Zaheer, 2006; Kramer, 2006). Literature uses a number of terms that directly or indirectly refer to trust (e.g. cooperation, confidence, and predictability). These and various other terms have only complicated the phenomenon of trust (Mayer, Davis & Schoorman, 1995). Furthermore, it is difficult to measure the value of trust in a relationship, as we generally realise its value only after losing it (Moore, 2002). Moreover, trust is “not a behaviour (e.g., cooperation) or a choice (e.g., taking a risk) but an underlying psychological condition that can cause- or result from such actions” (Sitkin, Rousseau, Burt et al, 1998). As indicated by Mayer, Davis and Schoorman (1995), the importance of trust has been dramatically increasing among the “workforce composition” and the “organization of the workplace”.

In their seminal paper Mayer, Davis and Schoorman (1995) defined trust as “the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party”. Similarly, Rosanas (2009) defined organizational trust as the “relationship between two people where one takes an action making him vulnerable to the other”. Being vulnerable is risk-taking, where “trust is not taking risk per se, but rather it is a willingness to take risk” (Mayer, Davis & Schoorman, 1995). Therefore, trust is a social capital resource which is generally embedded in relationships among people (Berger & Luckmann, 1967; Dovey, 2009; Misztal, 1996; Nahapiet & Ghoshal, 1998). Although the role of trust in group processes has been well researched, less is known about the impact of trust on AC (Noblet, Simon & Parent, 2011). This is the gap in literature that justifies the motivation behind this study. Therefore, we propose the linkage between trust and AC.

2.2.1 Antecedents of Trust

Contemporary scholars have acknowledged the three antecedents of trust identified by Mayer, Davis and Schoorman (1995), namely ability (i.e. skills, competencies, traits and characteristics that are essential to influence a specific domain), benevolence (i.e. the degree or level to which the first person believes the second person wants to do good to the first person) and integrity (i.e. the valuation that the first person do to judge whether or not the second person will adhere to acceptable principles) (Evans & Wensley, 2009; Mayer, Davis & Schoorman, 1995; Parra, Nalda & Perles, 2011; Schoorman, Mayer & Davis, 2007). Furthermore, they have agreed that no further addition is justified to the list of antecedents because of synonymous terms used in the literature. Therefore, this research will adopt the original three antecedents of trust (Mayer, Davis & Schoorman, 1995) with their traits to evaluate organisations, identify trust issues and influence factors causing AC operationalisation.

2.2.2 Trust as an Antecedent

Trust is qualified as a potential antecedent as well as a consequence to knowledge acquisition, knowledge creation, knowledge sharing, knowledge transfer, knowledge absorption, innovation, improved performance, collaboration (Dale, 2012; Huotari & Iivonen, 2004; Joanne & Inder Jit Singh, 2010; Kharabsheh, 2007; Lin, 2011; Mayer, Davis & Schoorman, 1995; Parra, Nalda & Perles, 2011; Politis, 2003a, 2003b; Spraggon & Bodolica, 2012) and AC specifically by Joanne and Inder Jit Singh (2010); Kharabsheh (2007); Noblet, Simon and Parent (2011). Furthermore, trust is declared as an antecedent to knowledge sharing that, along with other enablers, enable knowledge sharing and knowledge transfer to achieve competitive advantage (Joanne & Inder Jit Singh, 2010; Kharabsheh, 2007). As a consequence, trust influences AC and as a consequence of increased AC, trustworthiness nourishes further in organisations. Therefore, the level of trust will increase. Organizations
that promote trust-culture and are more trust-focused will have higher level of AC (Ratten, 2004). This is the first linkage in reference to the proposed framework. The paper, therefore, makes the following propositions:

P1: the higher the degree of trust in an organisation the higher the level of knowledge sharing  
P2: the higher the degree of trust in an organisation the higher the level of absorptive capacity  
P3: the higher the level of absorptive capacity of an organisation the higher the degree of trust in an organisation

2.3 Knowledge sharing

Incorporating new knowledge into existing knowledge from external or internal sources is a usual practice in organisations. It is the capability of an organization to create new knowledge, disseminate it, and embody it in services and systems (Nonaka & Takeuchi, 1995). Furthermore, in organizations, this creation of knowledge depends on the understanding of the organisation, i.e. how it learns (Mishra & Bhaskar, 2011; Schon, 1975). Moreover, merely gaining the knowledge through externalisation or internalisation is of no benefit, unless it is shared among individuals, groups, functions or systems of the organization (Von Krogh, 2000). That will enhance the level of AC. Knowledge sharing is the spinal cord of knowledge creation (reference). It leverages organizational knowledge (Mishra & Bhaskar, 2011), enables knowledge transfer among the employees (Joanne & Inder Jit Singh, 2010) and drives the organisation to optimum performance and competitive advantage (Joanne & Inder Jit Singh, 2010; Mishra & Bhaskar, 2011).

2.3.1 Antecedents of knowledge sharing

Trust is identified as the first fundamental antecedent to knowledge sharing. In their research Joanne and Inder Jit Singh (2010) proposed a model of knowledge sharing for organisations. Trust is nominated as the primary antecedent that will enable knowledge sharing. Along with trust, they have identified psychological and social processes, culture, pre-existing relationships, external incentives and previous experiences as antecedents to knowledge sharing. Whereas the other antecedents are also the consequences of trust being at the first place, the level of trust is also influenced by them. Some have positive and some have negative influence on the level of trust. Furthermore, from the sequence of the antecedents and top-down structure of the model, it is very obvious that trust is on the top and is the highest preference, and is the foremost necessity (conditional prerequisite) to other antecedents. Altogether, these antecedents will therefore enable knowledge sharing.

The model of antecedents of knowledge sharing proposed by Kharabsheh (2007) draws from the strategic marketing literature, therefore we do not acknowledge it as a standard universal knowledge sharing model to guide KM world. His model establishes links between antecedents, enablers and knowledge sharing from the context of strategic marketing literature. Furthermore, the model considers trust as an enabler among other enablers and not as an antecedent. Even though we do not acknowledge this model (Kharabsheh, 2007) as an ideal organisational knowledge sharing model, we still agree with many principles proposed by the model. We acknowledge and adopt information technology (IT) infrastructure, positive interactions (i.e. social integration mechanisms) and rewarding system as important enablers for trust-building, knowledge sharing, knowledge transfer and knowledge absorption to enhance AC. This is the second linkage in reference to the proposed framework. The paper, therefore, makes the following propositions:

P4: the higher the degree of knowledge sharing within the organisation the higher the level of trust  
P5: the higher the degree of knowledge sharing within the organisation the higher the level of absorptive capacity

2.4 Knowledge transfer

Knowledge transfer is one of the distinct mechanisms in organizations that influences AC (Cohen & Levinthal, 1990a) in a unit-to-unit setting, or department-to-department setting, or between the external environment and the organization, or between an internal network and an external network (Frans, Henk & Michiel de, 1999). These mechanisms are usually bidirectional, enabling in-bound knowledge transfer (i.e. enriching organizations from external sources) or out-bound knowledge transfer (i.e. enriching external networks with self-knowledge) (Kharabsheh, 2007). Furthermore, knowledge transfer mechanisms are challenged when we evaluate the two types of knowledge to be transferred, i.e. explicit knowledge and tacit knowledge. Explicit
knowledge can be represented by various means, for example numbers and words. It can also be easily communicated through agreed principles and codified routines (Kharabsheh, 2007). Explicit knowledge can be easily recorded into books, manuals, blueprints, et cetera. The best practice to transfer this kind of knowledge is through the “ impersonal communication of technological transfer method” (Kharabsheh, 2007; Rebentisch & Ferretti, 1995). In contrast, tacit knowledge, e.g. instincts, premonitions, individual’s experience, expertise actions, reactions, values or emotions (Nonaka & Takeuchi, 1995; Silke & Alan, 2000) is very hard to formalize and communicate. It is very personal and also very challenging “at least not via impersonal communication methods” (Kharabsheh, 2007). Tacit knowledge can be transferred through socialisation mechanisms (Nonaka, 1994) which means in a social network setting where source and the recipient work alongside (Kharabsheh, 2007). Therefore, success of knowledge transfer is pretentious and is affected by some critical factors, e.g. the AC of the source and the recipient, previous experiences and related knowledge (Volberda, Foss & Lyles, 2010).

2.4.1 Antecedents of Knowledge Transfer

The twin terms, namely knowledge sharing and knowledge transfer are often used one after another in KM literature (e.g. Kharabsheh, 2007; Volberda, Foss & Lyles, 2010). However, few researchers (e.g. Joanne & Inder Jit Singh, 2010) attempted to distinguish them. In this research, we adopt trust and knowledge sharing as the two core and foremost antecedents that triggers knowledge transfer mechanisms (Joanne & Inder Jit Singh, 2010; Kharabsheh, 2007). Other antecedents to knowledge transfer are identified as motivation, characteristics of knowledge, strategic similarity, leadership and types of contexts (Minbaeva, 2007; Osterloh & Frey, 2000; Spraggon & Bodolica, 2012; Szulanski, 1996). Furthermore, scholars have identified supporting enablers that influence the knowledge transfer experience, namely organisational structure, culture, business strategy, leadership, social integration mechanisms, relationships, information technology (e.g. Brachos, Kostopoulos, Soderquist et al, 2007; Dayasindhu, 2002; Michael, 1999; Spraggon & Bodolica, 2012; Zheng, Yang & McLean, 2010), proximity (e.g. Davenport, 2005; Tallman, Jenkins, Henry et al, 2004), cognitive (Weick & Roberts, 1993), physical and ‘Ba’ (Nonaka, Toyama & Konno, 2000). This is the third linkage in reference to the proposed framework. The paper, therefore, makes the following propositions:

P6:- the higher the degree of knowledge sharing within the organisation the higher the level of knowledge transfer
P7:- the higher the degree of knowledge transfer within the organisation the higher the level of trust
P8:- the higher the degree of knowledge transfer within the organisation the higher the level of absorptive capacity of the organisation

2.5 Knowledge absorption

Knowledge absorption is one of the constructs of AC (Badding, 2011; Cohen & Levinthal, 1990a). “Knowledge absorption serves as the foundation for AC” (Badding, 2011). Furthermore, for effective learning, improved performance and increased innovativeness, organisations must start learning. Within the process of learning, prior knowledge plays a significant role and contribute to organisation’s new “venture capabilities” (Badding, 2011). Cohen and Levinthal (1990b) stated “prior related knowledge confers an ability to recognize the value of new information...and apply it to commercial ends” (p. 128). Moreover, Badding (2011) in his doctoral thesis identified knowledge absorption as a significant contributor to organisational learning and AC enhancement.

The common belief about the success is that it resides with the capabilities of organisations to integrate their learned or acquired knowledge and not merely within the knowledge itself (Badding, 2011; Grant, 1996). Furthermore, if organisations do not integrate their learned or acquired knowledge to their work force and systems, it becomes useless to the organization (Badding, 2011). Moreover, Grant (1996) asserted that improved performance, innovation and competitive advantage resides within the ability of an organisation to effectively integrate and apply knowledge to commercial ends.

Henceforth, KM literature highlights the importance of knowledge absorption for organisations to enhance their AC. The literature equally necessitates the identification of a roadmap to achieve effective knowledge absorption. Furthermore, we need to identify antecedents of knowledge absorption in order to succeed absorption.

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2.5.1 Antecedents of Knowledge Absorption

KM literature identifies the various antecedents of knowledge absorption. In this paper we propose that the primary set of antecedents is trust, knowledge sharing and knowledge transfer (Castelfranchi, 2004; Chen, 2004; Joanne & Inder Jit Singh, 2010; Spraggon & Bodolica, 2012). The secondary set of antecedents is the four dimensions of AC (Cohen & Levinthal, 1990b) to effectively integrate the knowledge, for improved performance, competitive advantage and success (Cohen & Levinthal, 1990b; Joanne & Inder Jit Singh, 2010). Furthermore, we propose social integration mechanisms and IT infrastructure as strong enablers for knowledge absorption. This is the fourth linkage in reference to the proposed framework. The paper, therefore, makes the following propositions:

P9: the higher the degree of knowledge transfer within the organisation the higher the level of knowledge absorption

P10: the higher the degree of knowledge absorption within the organisation the higher the level of trust

P11: the higher the degree of knowledge absorption within the organisation the higher the level of absorptive capacity of the organisation

3. Conclusion

In this paper, we have presented a comprehensive framework to enhance AC. The framework will be tested in the Australian Healthcare industry. Adopting the constructivist philosophical worldview, this research seeks to offer a holistic approach for studying how trust influences knowledge sharing, knowledge transfer and knowledge absorption as an antecedent, and as a fundamental ingredient in both intra- and inter-organisation contexts. Study will be conducted by adopting a qualitative research methodology for conducting the empirical investigation through exploratory case studies, using semi-structured interviews to collect data. The research will be interpretive in nature and will adopt descriptive purpose because the study will identify and investigate the issues and influence factors behind the concept building. Furthermore, this research will contribute significantly to the body of knowledge by extending the notion of knowledge management from that of the development and maintenance of systems (i.e. collecting, storing and disseminating the information and data) to one that recognises the importance of trust to knowledge sharing, knowledge transfer, and knowledge absorption activities, processes and strategies. A trust-based holistic model will be developed to assist organisations to fulfil organisational, people/social, and technological requirements as well as to achieve knowledge culture, improved performance, innovativeness, competitive advantage, success and henceforth, enhanced AC.

4. References


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