

Asian Academy of Management Journal, Vol. 13, No. 2, 57–77, July 2008

SOCIAL CAPITAL FOR KNOWLEDGE MANAGEMENT: THE CASE OF SMALL AND MEDIUM-SIZED ENTERPRISES IN THE ASIA-PACIFIC REGION

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ABSTRACT

This article proposes a conceptual framework that explains that the social capital of a community shapes the innovation performance of small and medium-sized enterprises (SMEs) through knowledge management within the firm. The study's significance stems from the unprecedented effort in explaining how community social capital matters in the innovation performance of SMEs, a departure from previous studies that have typically examined market-related or hierarchical social capital in the form of formal networks and directly linked them to a firm's innovation performance without due regard for knowledge management within the firm as an antecedent of organisational innovation performance. The aim is to stimulate further thinking and empirical research on the subject of social capital of a community in the SME and/or entrepreneurial context.

Keywords: social capital, knowledge management, absorptive capacity, SMEs

INTRODUCTION

A fundamental tenet of social capital claims that the larger community in which a business organisation is embedded is a source of capital. The capital that arises from networks, social norms, and trust is just as important as financial and human forms of capital in sustaining a firm's value-creation processes, such as organisational innovation performance (Renko, Autio, & Tontti, 2002; Tsai, 2006). On the other hand, innovation is considered to be a strategic imperative for organisational survival and growth in the modern and global business environments, which are characterised by turbulence, dynamism, and intense competition (Fosfuri & Tribo, 2006). Through the performance of innovation, a firm is able to adapt to, as well as influence its wider environment by developing and sustaining competitive advantage in various forms to propel the "business engine" for survival and growth. Hence, there is a need to look at how the social capital of the community in which SMEs are embedded can contribute to the SME's innovation performance.

Despite the plethora of literature on the subject, critical gaps remain. On the conceptual level, social capital is still a heavily disputed concept. One issue in dispute is whether social capital is distinct from existing concepts like community or institutions (Lochner, Kawachi, & Kennedy, 1999). Similarly, measurement of social capital has proven to be difficult and problematic as the search for a sound techno-methodology continues (Maskell, 2000; Westlund, 2006). Another major issue is the level of aggregation (i.e., household, organisation, community, or nation) as the focal point of assessment (Schuller, Baron, & Field, 2000). Another issue is circularity whereby social capital may be argued to be an effect rather than a cause (or vice-versa). Whether to use quantitative or qualitative means to gauge social capital is another focal point of disagreement (Patulny & Svendsen, 2007).

On the empirical level, the links between social capital and other variables like economic development, organisational performance, and particularly innovation performance are not unequivocal. Whilst numerous studies have examined the hierarchical and market-oriented social capital of business organisations (such as alliances, industry clusters, and supply or distribution chains) and the personal networks of individuals within the organisation, studies examining community social capital as a whole and how it relates to business organisations such as SMEs are very scarce (Westlund & Bolton, 2003; Suseno & Ratten, 2007). Pittaway, Robertson, Munir, Denyer and Neely (2004) argue that addressing the research gap on assessing how informal networking (i.e., social capital) relates to different forms of innovation, such as process and product improvements, is necessary.

Whilst studies have shown that social capital is positively related to innovation, the major question is how (Dakhli & De Clercq, 2004). Furthermore, the current literature is replete with studies proclaiming the importance of knowledge absorption and utilisation within the firm (i.e., the firm's absorptive capacity) in pursuit of innovation (Cohen & Levinthal, 1990; Van den Bosch, Volberda, & de Boer, 1999; Zahra & George, 2002; Daghfous, 2004; Gray, 2006). Investigating how community-based social capital relates to a firm's absorptive capacity is sound and, to the best of the researcher's knowledge, is an unprecedented effort.

This study hopes to provide more insight, if not remedies, into the issues and research gaps identified above. Its major thesis is that the social capital inherent in the community shapes the innovation performance of SMEs through the SMEs' strategic exercise of absorptive capacity. The role of absorptive capacity is given special emphasis because this succinctly explains why social capital matters for SMEs that pursue innovation as a precursor to organisational sustainability and entrepreneurial competitiveness (Lin, Li, & Chen, 2006). The major goal is to develop a conceptual framework that illustrates specific dimensions of social

capital that are potential sources of knowledge necessary for SME innovation performance. In this framework, social capital becomes valuable only if SMEs possess the capacity to strategically absorb, assimilate, transform, and exploit knowledge generated by the social capital found in the immediate community in which a particular SME is situated.

This paper presents discussions of the following: (a) the role of SMEs in economic development, social capital, absorptive capacity, and innovation performance; (b) the link between social capital and absorptive capacity; and (c) the link between absorptive capacity and innovation performance of firms. The article concludes by offering insights and directions for further research.

DISCUSSION

This section presents a brief discussion on the importance of SMEs as a research focus, social capital, absorptive capacity and its various forms, innovation performance of firms, and the link between social capital and absorptive capacity and the influence of absorptive capacity on SME innovation performance.

Small and medium-sized enterprises (SMEs)

The role of SMEs in economic development cannot be overemphasised. Comprising over 98% of total enterprises in the Asia-Pacific region (APEC, 2003), SMEs have assumed a leading role in the economic development of many countries (OECD, 2005). This study uses the term SMEs to include micro-enterprises, which, in countries like the Philippines, are categorised separately from the small and medium-sized firm.

Studies on the importance of SMEs, especially in developing and emerging countries, converge on certain conclusions. First, SMEs stimulate ownership and entrepreneurial skills. Second, they form the backbone of the market economy. Third, they are flexible and can adapt quickly to changing market demands and supply situations, and thus, a competitive SME sector is a precondition for sustainable development and responses to the demands of globalisation. Fourth, they generate massive long-term employment. Fifth, they help diversify economic activity and make significant contributions to exports and trade. Finally, they contribute significantly to local development (APEC, 2003; OECD, 2005; Arinaitwe, 2006).

Defining and conceptualising social capital

Social capital theory proposes that "networks of relationships constitute a valuable resource for the conduct of social and economic affairs, providing their members with the collectively-owned capital" (Nahapiet & Ghoshal, 1998, p. 243). Its main theme focuses on the ability of actors to "extract benefits from their social structures, networks and memberships" (Davidsson & Honig, 2003, p. 302). The concept of embeddedness is at the core of this theory, which assumes that "actions between individuals are so predicated on social relations constraining the so-called rational and self-interested behaviour" (Granovetter, 1985, p. 482).

There are several interpretations of social capital that are considered influential in shaping current debates on the subject. One definition of social capital refers to "the sum of resources, actual or virtual that accrue to an individual or a group by virtue of possessing a durable network or more or less institutionalised relationships of mutual acquaintances and recognition" (Bourdieu & Wacquant, 1992, p. 119). In the field of education, social capital is viewed as a "set of resources inherent in family relations and in community social organisations that are useful for the cognitive or social development of a child or young person" (Coleman, 1988: 98). A more popular view explains that social capital refers to the features of social organisation such as networks, shared norms, and trust that facilitate coordination and cooperation for mutual benefit (Putnam, 2000, p. 36). These shared norms, values, understanding, and reciprocities arising from those social networks facilitate cooperation within or amongst groups that supports the achievement of goals (Schuller et al., 2000; OECD, 2005). In this context, a "social network refers to the set of nodes (persons or organisations) linked by a set of social relationships" (e.g., friendships, affinity, transfer of financial resources, overlapping memberships, etc.) and "geographic proximity" (Schuller et al., 2000, p. 5; Westlund, 2006, p. 8).

These definitions converge on several themes. One theme is that social capital is a communal property involving civic engagement, associational membership, high trust, and reciprocity in social networks or connections (Cooke & Wills, 1999). It is a form of asset embedded in the relationships of individuals, communities, networks, or societies (Liao & Welsch, 2005). Another theme is that social capital is composed of social, non-formalised networks that are created, maintained, and used by the network's nodes/actors in order to distribute norms, values, preferences, and other social attributes and characteristics but that also emerge as a result of actors sharing some of these attributes (Westlund, 2006).

Moreover, social capital is arguably a multi-dimensional concept and a community characteristic, and therefore, it should be measured at the community level (Lochner et al., 1999). Attempts to measure social capital beyond or less than the community level constitutes an over-generalisation or sub-optimisation in the search for explanations for why social capital matters. As a community characteristic, Westlund and Bolton (2003) argue that social capital:

- (a) facilitates or inhibits the kind of innovative, risk-taking behaviour that is part and parcel of entrepreneurship;
- (b) enters directly into the utility function of an individual and gives the satisfaction or dissatisfaction that eventually shapes behaviour; and
- (c) facilitates or inhibits efforts of the community as a whole to act effectively as a collective entrepreneur, to innovate in new ways to create business opportunities, and to solve social problems.

Finally, in the context of studying economic actors such as SMEs, social capital should be analysed as a concept of economics, that is, as a form of capital (Westlund, 2006). Whilst financial capital has been a commonly discussed issue in small business development, social capital provides another dimension in the analysis on why business organisations survive, prosper, or decline. By treating social networks, norms, and trust as sources of capital, it allows for quantification of this valuable resource in the same way financial and human capital have been used to gauge the performance of firms.

Types or dimensions of social capital

The multi-dimensionality of social capital is evident in its conceptual history, including previous attempts to identify specific components that lead to empirical measurement. Putnam's (2000) work emphasises the role of community organisational life, engagement in public affairs, community volunteerism, informal sociability, and social trust in shaping the overall social capital of a community. Likewise, Putnam (2000) discussed the difference between bonding capital, or the value assigned to social networks between homogeneous groups of people, and bridging capital, or the social networks between socially heterogeneous groups.

Another typology is to conceive social capital as either capital internal to an organisation or firm (including company spirit, climate of cooperation, or methods of codifying knowledge within the boundaries of an organisation) or external to the organization or firm [i.e., from the organisation's external environment (Westlund, 2006)]. This external form of social capital includes production-related capital, such as links to suppliers, product users, and partners

in cooperation and development, environment-related capital, such as links to local government, universities, and community organisations, and market-related social capital, such as general customer relations (Westlund, 2006). A criticism of this typology rests on the definition of social capital with the firm or organisation as the frame of reference. If social capital is a community asset, then it must be defined in the context of the community in which the firm/organisation is embedded, not the other way around.

Another popular typology presents social capital as either structural, relational, or cognitive capital, with the firm as the focal point of analysis (Nahapiet & Ghoshal, 1998). Structural capital or social interaction and ties refer to network ties that provide access to resources and information (Nahapiet & Ghoshal, 1998; Liao & Welsch, 2005). Relational capital concerns the kinds of personal relationships people have developed through a history of interaction (Nahapiet & Ghoshal, 1998; Liao & Welsch, 2005). Finally, cognitive capital refers to shared representations, interpretations, and systems of meaning among parties within a social network (Nahapiet & Ghoshal, 1998). This typology has the same weakness as the previous one because it does not fully take into account the social capital of the community in which the firm is embedded.

Another attempt to measure social capital at the community level is the work of Onyx and Bullen (2000), which is by far the most comprehensive empirical in the literature. Although the work is heavily influenced by the seminal work of Putnam (2000), this study looks at social capital as a multidimensional concept measured by participation in the local community, social agency or proactivity in a social context, feelings of trust and safety, neighbourhood connections, family and friend connections, tolerance for diversity, value of life, and work connections (Onyx & Bullen, 2000). This set of measures was developed after studying five Australian communities involving 1,200 adults. The study was later replicated in the United States in 2004, supporting the validity and reliability of the instrument that Onyx and Bullen developed (O'Brien, Burdsal, & Molgaard, 2004). Onyx's and Bullen's framework of social capital will be used in measuring social capital in this study.

Absorptive capacity

Knowledge is the most powerful engine of production (Marshall, 1920). To gain access and fully utilise knowledge in a productive manner, a firm must develop and sustain its absorptive capacity or its ability to value, assimilate, and apply knowledge received from external sources, such as suppliers, customers, competitors, and alliance partners (Cohen & Levinthal, 1990). The concept "absorptive capacity" is used to describe the firm's ability to use its prior knowledge and diverse background to identify the value of new information and

to develop this into something creative. Absorptive capacity is therefore considered to be a dynamic capability pertaining to knowledge creation and utilisation that enhances a firm's ability to gain and sustain a competitive advantage (Zahra & George, 2002).

The theory of organisational learning provides the framework that supports the theoretical importance of absorptive capacity (Argyris & Schon, 1996). This theory explains that organisations survive because they actively create, capture, transfer, and mobilise knowledge (i.e., organisations learn) to enable it to adapt to a changing environment. In short, organisational learning is essential to become an adaptive organisation.

Types of absorptive capacity

Amidst the plethora of studies on absorptive capacity, this study adopts the framework developed by Zahra and George (2002), which categorises absorptive capacity as either potential or realised. Potential absorptive capacity makes the firm receptive to acquiring and assimilating external knowledge (Zahra & George, 2002). Potential absorptive capacity entails two major processes: knowledge acquisition and knowledge assimilation. Knowledge acquisition refers to the firm's ability to identify and acquire externally generated knowledge critical to its operation (Zahra & George, 2002). Knowledge assimilation, on the other hand, refers to the firm's routines and processes that allow it to analyse, process, interpret, and understand the information obtained from external sources (Zahra & George, 2002).

Realised absorptive capacity is a function of the transformation and exploitation capabilities of the firm (Zahra & George, 2002). Transformation refers to the ability to develop and refine the routines that facilitate the combination of existing knowledge and the newly acquired and assimilated knowledge. Exploitation refers to the routines that allow firms to refine, extend, and leverage existing competencies or to create new competencies by incorporating acquired and transformed knowledge into its operations (Zahra & George, 2002).

Potential and realised absorptive capacity form the two basic components of the knowledge chain, similar to Welsch's et al. (2001) awareness and responsiveness components of the same chain. This knowledge chain highlights the importance of not merely possessing knowledge but also possessing the capacity and willingness to act on that knowledge (Welsch, Liao, & Stoica, 2001). This is an important point because previous studies tend to focus on one (Stock, Greis, & Fischer, 2001; Tsai, 2006). As a result, the value-creating and process-enhancing effects of knowledge is not fully captured.

Innovation performance of SMEs

Innovation performance as conceived in this study refers to the overall creative conduct of the firm pertaining to the use of new and existing ideas to solve existing or future problems and to exploit entrepreneurial opportunities. This understanding of innovation performance stems from existing views on the concept of innovation. Innovation has been traditionally viewed as a creative process involving the application of existing ideas to create unique solutions to problems (Duncan, 1972). However, innovation also entails the creation of new ideas for new purposes. Hence, innovation performance may refer to the process of generating and using any idea, practice, or object that the adopting organisation regards as new (Zaltman, Duncan, & Holbek, 1973; Damanpour & Evans, 1984; Damanpour, 1991; Hage, 1999). As a discrete event, innovation performance may refer to the first successful application of a product or process. As a process, innovation performance involves the generation, development, and implementation of new ideas or behaviours (Damanpour, 1991).

In the context of firm competitiveness, innovation performance of firms is an attempt to create competitive advantage by perceiving or discovering new and better ways of competing in an industry and bringing them to the market (Porter, 1990). Constant innovation performance allows a firm to better meet customer needs, stay ahead of competition, capitalise on strategic market opportunities, and align organisational strengths with market opportunities (Wagner & Hansen, 2005).

Forms of innovation performance

In his thesis on creative destruction, Schumpeter (1934) identified two fundamental forms of innovation performance through which entrepreneurship is exercised: process innovations and product innovations. Process innovations include a new method of production or a new source of raw material, whilst product innovations include new goods, new quality of goods, opening a new market, or a new industry structure as the creation of a destruction of a monopoly position (Schumpeter, 1934).

Other studies expanded the product and process innovation typology by including market innovation (i.e., exploitation of territorial areas, penetration of market segments) and organisational innovation (i.e., innovation in marketing, purchasing and sales, administration, management, and staff policy) (Chuang, 2005). Studies in the manufacturing sector tend to define innovation performance in terms of product innovation (i.e., new or improved products), process innovations (i.e., improved processing or manufacturing methods) and business

systems innovation (i.e., new and improved business and marketing practices) (Hovgaard & Hansen, 2003).

Innovation performance may also be characterised in terms of the degree of strategic and structural change that the firm must undergo to accommodate innovation (Zaltman et al., 1973). In this context, innovation performance may be considered radical if the advances are so significant that revolutionary alteration of the organisation and its support networks must occur to accommodate and implement change (Zaltman et al., 1973; Cooper, 1988). Incremental innovation performance, on the other hand, enhances and extends the underlying technology and thus reinforces the established technical order (Zaltman et al., 1973; Cooper, 1988).

Furthermore, innovation, as performed by the firm, may be classified according to the proximity of the change in relation to the organisation's operating core (Lin et al., 2006). In this context, two forms of innovation performance are identified: (a) technological innovation performance, which involves the adoption of an idea that directly influences direct output processes (Lin et al., 2006); and (b) administrative innovation performance, which refers to changes that affect policies, allocation of resources, and other factors associated with the social structure of the organisation (Han, Kim, & Srivastava, 1998; Lin et al., 2006).

Amidst the apparent divergence of foci amongst these typologies, the preponderance of evidence suggests that treating innovation performance as a multi-dimensional phenomenon with its components occurring at the same time is most appropriate and beneficial (Cooper, 1988). Hence, in this study, the innovation performance of SMEs is characterised using a multi-dimensional model in which innovation has varying degrees of change (incremental or radical), scope or domains of change (administrative or technological), and outputs (product or process innovation). This approach accounts for the notion that firms may pursue different types of innovation depending on organisational structure, size, nature of industry, and other contextual, environmental, or strategic factors (Damanpour, 1991).

Social capital and its link to absorptive capacity and innovation performance

There are several theoretical arguments supporting the link between social capital and a firm's absorptive capacity and innovation performance. The fundamental thesis is that firms do not innovate in isolation (De Propris, 2002). The most recent thesis is "absorptive capacity through firm connectedness" (Wiethaus, 2005). Wiethaus (2005) argues that research and development efforts of firms are shaped heavily by the firm's external links with the environment. Social links to local suppliers, customers, and other research and development partners provide

faster access to information and knowledge, lower information and knowledge costs, increased supply of information and knowledge, and improved quality of information (Westlund, 2006). All these are expected to result in faster innovation process, higher quality of innovations, or increased innovation potential (Westlund, 2006).

The theory of innovative milieu (Camagni, 1991) broadens the explanation by proposing that innovative activities will be more likely in regional or local environments in which there is a high level of untraded interdependencies between firms, agencies, and institutions and where there is a common way of perceiving, understanding, and solving problems (North & Smallbone, 2000; Dakhli & De Clercq, 2004). An innovative milieu is characterised by geographical proximity, informal relationships between firms and other actors in the locality, and a collective learning process (De Propris, 2002). Geographical proximity facilitates information and knowledge exchange, enabling social cohesion to develop. The model introduces dynamic factors between the elements of the innovation system that contribute to and generate synergetic and collective learning processes within the milieu (Camagni, 1991; De Propris, 2002).

Theories of organisational learning also provide theoretical support to social capital and absorptive capacity/innovation. Organisational learning is a process of knowledge acquisition, assimilation, and exploitation (Argyris & Schon, 1996; Renko, Autio, & Sapienza, 2001). Social capital facilitates knowledge acquisition and exploitation by affecting the conditions necessary for the creation of value through the exchange and combination of existing intellectual resources (Renko et al., 2001). In the high technology sector, for instance, that the constant replenishment of knowledge, because it is a scarce resource, is imperative. Social capital becomes critical in this regard because knowledge acquisition and exploitation are essentially social processes (Renko et al., 2001). Social capital provides the necessary networks that facilitate the discovery of opportunities and the identification, collection, and allocation of these scarce resources (Davidsson & Honig, 2003).

Conceptual Framework and Research Propositions

Given the theoretical justifications of the links between social capital, absorptive capacity, and innovation performance of firms, the conceptual framework showing the proposed relationships between and amongst constructs under the three major research domains is presented in Figure 1. The proposed framework highlights the direct relationship between the various dimensions of social capital and absorptive capacity (both potential and realised) of SMEs. Social capital does not only provide SMEs access to knowledge (potential absorptive capacity), but it also nurtures the processes and capabilities necessary to exercise absorptive

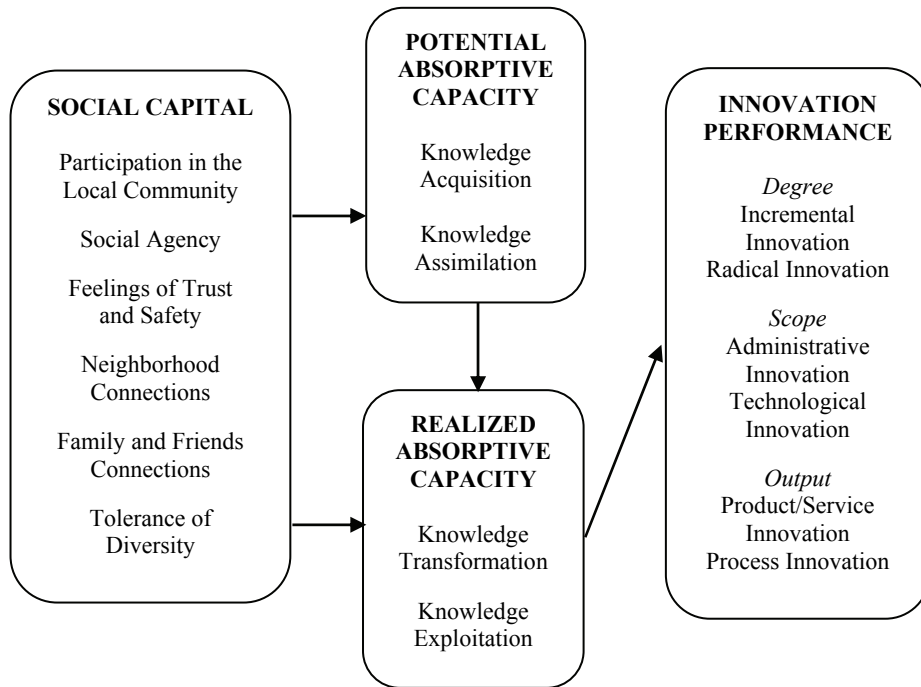


Figure 1. The conceptual framework.

capacity. The knowledge generated and available to the firm becomes valuable only when it is acted upon by the firm through the exercise of realised absorptive capacity. This, in turn, influences the degree, scope, and result of innovation performance of firms.

As previously mentioned, the six dimensions of community-level social capital that are used in this study are adopted from Onyx and Bullen (2000) and replicated by O'Brien et al. (2004). The Onyx and Bullen model of social capital is a result of efforts to determine whether social capital is a concept with an empirically meaningful reality and whether a valid yet practical measurement tool to assess a community's social capital could be developed (O'Brien et al., 2004). Apart from the replication of this Australian study in the United States, which revealed similar conclusions, no other efforts have examined the validity of the Onyx and Bullen model. Moreover, the applicability of this model in a developing country environment has not yet been tested. This justifies the adoption of the model in the current study. However, Onyx and Bullen's dimensions of value of life and work connections are excluded because there seems to be no theoretical or empirical basis to relate them to other variables in this study.

The dimensions of potential and realised absorptive capacity are based on the work of Zahra and George (2002), which has also been applied to other studies (Renko et al., 2001; Tsai, 2006). This study argues that only realised absorptive capacity has a direct influence on the innovation performance of firms based on the premise that knowledge transformation and exploitation and whether new or improved knowledge has been integrated in the firm's value-creation processes is indicated by examining the various manifestations of innovations that a firm may pursue.

Dimensions Of Social Capital

Participation in the local community

This refers to the extent to which people actively engage in community activities through volunteering, becoming members in local organisations, and helping in various local events or projects (Leonard & Onyx, 2004). Participation in the local community normally results in stronger ties within the community and the building of bonding social capital, both of which are essential to communal problem solving and opportunity-seeking (Maloney, Smith, & Stoker, 2000).

Therefore, for a small business owner who is also an active participant in that community, the community becomes a potent source of shared knowledge for all members. Hence, associational activity fosters innovation amongst SMEs by increasing their exposure to different ideas, skills, or expertise in a non-threatening and informal way, and provides different and unique sources of information, financial funding, and political support (Dakhli & De Clercq, 2004). This study proposes that:

- P₁: High level of participation in the local community is positively associated with high level of SME absorptive capacity.

Social agency

Social agency or social proactivity refers to the way in which people are proactive and consistently assert themselves in their dealings with others (Leonard & Onyx, 2004). A community with strong social agency tends to have proactive agents and creators of their worlds because they are well-armed with well-meaning intentions, knowledge of social rules, and "activation," a factor that describes an individual's tendency to take action (Leonard & Onyx, 2004). A community high on social agency promotes active involvement and has open communication channels amongst members of the local community. Because community members deliberately make efforts to interact, building and strengthening social ties becomes more possible and consequently,

communication channels are opened, thereby allowing information and other forms of resources to flow amongst members. Community interaction also allows for collective problem solving through the sharing of ideas, skills, and expertise, all of which may be valuable to a small business owner. Therefore, this study proposes that:

P₂: High level of social agency is positively associated with high level of SME absorptive capacity.

Feelings of trust and safety

This dimension deals with the extent to which an individual feels that people can be trusted and that his neighbourhood is a safe place, which is indicated by a minimal, if not absent, level of crime (Leonard & Onyx, 2004). A feeling of safety implies that no harm is expected from the normal course of events within the community. Trust entails willingness to take risks in a social context based on a sense of confidence that others will respond as expected and will act in mutually supportive ways (Leonard & Onyx, 2004). Feelings of trust imply expectations that arise within a community of regular, honest, and cooperative behaviour, based on shared norms of the community (Suseno & Ratten, 2007). In this context, reciprocity is of prime importance because it builds trust within the community by developing a sense of confidence that social insurance will help if it is needed.

Several studies have shown the beneficial effects of trust. Building on the premise that innovation takes place when there is barter of knowledge, continuous contact with other entities, and building of stable networks of relationships (Maskell, 2000), feelings of trust become essential because it reduces the need for rigid control systems that are normally established to protect an individual or firm from predatory or opportunistic behaviour (Dakhli & De Clercq, 2004; Suseno & Ratten, 2007). In short, feelings of trust and safety allow for greater openness to the potential for value creation through the exchange and combination of resources between business partners and other members in the local community. Hence, this study proposes that:

P₃: High level of feelings of trust and safety in the community is positively associated with high level of SME absorptive capacity.

Neighbourhood connections

Onyx and Bullen (2000) implicitly refer to neighbourhood connections as the strength of closeness or ties that bind neighbours in a community. The degree to which neighbours know each other, such that an exchange of favours is a way of

life, characterises a high level of social capital. This is very similar to the concept of informal social networks, which refers to relationships among social entities and the patterns and implications of these relationships (Schuller et al., 2000).

Empirical evidence shows that small business owners often use social ties and networks to seek information, social support, and advice from others, to access financial capital and resources, and to secure legitimacy through endorsements from prestigious actors (Morris, Woodworth, & Hiatt, 2006). Hence, neighbourhood connections form a significant part of this wide network from which SMEs absorb and exploit valuable knowledge about products, markets, business processes, and other entrepreneurial opportunities. Hence, this study proposes that:

- P₄: Strong neighbourhood connections are positively associated with high level of SME absorptive capacity.

Family and friend connections

The family and close friends are potent sources of social capital (Anderson & Miller, 2003). Family socialisation inspires autonomy and referral of personal networks that provide valuable resources (Davidsson & Honig, 2003). Family and friends are also potent sources of support. Personal relationships were identified as important for product development and these relationships were characterised by longevity that lasted over many project cycles and changes in formal organisational structure (Morton, Brookes, Dainty, Backhouse & Burns, 2006). The elements of these relationships include trust, respect, loyalty, common background and experience, and shared social contexts (Morton et al., 2006). The literature on small business and entrepreneurship is replete with studies examining the valuable role played by family and friends as a support system for SMEs (Cooke, 2001; Arinaitwe, 2006). Results of many studies conclude that family and friends offer insights on how to manage a business based on their own experiences (i.e., role modelling), psycho-emotional and financial support, and referral to other sources of inputs to business operation. Hence, this study proposes that:

- P₅: Strong family and friend connections are positively associated with high level of SME absorptive capacity.

Tolerance for diversity

This refers to the level of tolerance for multiculturalism and variety in individual lifestyles within the community (Leonard & Onyx, 2004). It implies that social capital must allow for diversity and enhance creative experimentation.

Recognition and respect for cultural and individual differences within the bounds of shared norms and values form foundation of an open and progressive community. Multiculturalism and lifestyle diversity may synergistically reinforce associational life, thereby reaping rewards from the abundance of ideas contributed by community members with diverse backgrounds and professions (Dakhli & De Clercq, 2004). Community members are given the opportunity to share their talents, skills, or know-how with others and tacit knowledge is not suppressed. Instead, community members are encouraged to share their knowledge with others so that the community can use that knowledge. This opens up communication channels through which diverse and creative ideas can be shared by the community, including SMEs. Hence, this study proposes that:

- P₆: High level of tolerance for diversity is positively associated with high level of SME absorptive capacity.

Absorptive capacity-innovation performance Nexus

The role of knowledge (and knowledge management) in the innovation performance of firms is well-established and predominant in the literature (Darroch & Mcnaughton, 2002; Fosfuri & Tribo, 2006; Gray, 2006). Knowledge management literature shows that innovation performance is possible through knowledge creation and application (Demerest, 1997; Rodney, 2000). In this context, knowledge management refers to the process of critically managing knowledge to meet existing needs, exploit existing knowledge, and develop new opportunities (Demerest, 1997). It is a management function that creates or locates knowledge (i.e., data, information, and tacit knowledge), manages the flow of knowledge within the organisation, and ensures that the knowledge is used effectively for the long-term benefit of the organisation (Darroch & Mcnaughton, 2002). Knowledge management has the greatest impact in the creation of competitive advantage through innovation because knowledge dissemination and knowledge responsiveness are ambiguous and unique to the firm (Darroch & Mcnaughton, 2002).

Hence, studies on knowledge management have unequivocally established the link between absorptive capacity and innovation performance (Demerest, 1997; Rodney, 2000; Zahra & George, 2002; Politis, 2005). Theoretical and conceptual discussions of knowledge management and absorptive capacity imply that absorptive capacity is a sub-domain and a potent driving force behind knowledge management. From a theoretical standpoint, the assertion that absorptive capacity is positively associated with innovation performance is reasonable because absorptive capacity should lead to better acquisition and application of external knowledge to the internal activities of the firm (Stock et al., 2001). Likewise, the breadth and depth of knowledge exposure has been shown to positively influence

a firm's propensity to explore new and related knowledge (Zahra & George, 2002). In short, innovation performance is all about knowledge creation.

Theories of organisational responsiveness (Kohli, Jaworski, & Kumar, 1993; Liao, Welsch, & Stoica, 2003) provide further support by arguing that proactive strategists unceasingly monitor and interpret environmental changes, analyse environmental threats and opportunities, and modify organisational strategies to match those changes. These changes are expressed in various forms of organisational innovation. Hence, Liao et al. (2003) conclude that the responsiveness of growth-oriented SMEs (i.e., those that invest in innovation) is expected to increase if they have well-developed capabilities of external knowledge acquisition and intra-firm knowledge dissemination.

Reiterating that this study adopts the view of Zahra and George (2002) that absorptive capacity has two types, potential and realised absorptive capacity, is important. This study argues that firms must first engage in the process of acquiring and assimilating knowledge (i.e., exercise its potential absorptive capacity) before it can act on that knowledge by means of knowledge transformation and exploitation to constitute the firm's realised absorptive capacity. Hence, Zahra and George's (2002) view on absorptive capacity suggests a sequence of events in the potential absorptive capacity – realised absorptive capacity – innovation performance. Whilst previous studies have examined absorptive capacity as a uni-dimensional concept (Stock et al., 2001; Daghfous, 2004), this study adopts the view that knowledge must be acquired and assimilated prior to the transformation and utilisation that will ultimately influence the firm's innovation performance. Hence, this study proposes that:

- P₇: High level of potential absorptive capacity is positively associated with high level of realised absorptive capacity.
- P₈: High level of realised absorptive capacity is positively associated with high level of innovation performance of SMEs.

CONCLUSION AND RESEARCH IMPLICATIONS

The conceptual framework proposed in this study is a preliminary attempt to clarify the link between social capital of the community and the innovation performance of SMEs within that community. This study argues that this link is explained by the exercise of an SME's absorptive capacity. Theoretical explanations and empirical evidence were presented to substantiate the relationships between the constructs used in the framework. Even so, there remains a significant set of issues that are worth pursuing in future research. One

primary issue is whether the dimensions of social capital as used in the study are distinct and separable. There appears to be a major overlap of conceptual definitions between constructs, such as participation in local community and social agency. Whilst two specific studies were cited to have examined the multi-dimensionality of social capital, future studies should take precautions in this respect and closely examine the nomological validity of the concept. Likewise, the multi-layer and multi-dimensional presentation of innovation performance begs the question of whether to combine these dimensions and devise an index or whether to treat each layer and dimension as a substantive representation of firm innovation.

The links between social capital, absorptive capacity, and innovation performance may not be as straightforward as they appear. The link may be moderated by human capital and existing organisational variables like size, structure, and existing stock of resources (Cohen & Levinthal, 1990; Van den Bosch et al., 1999). This is a major concern if the model is applied to the context of SMEs, where variations in ownership, management structure and control, and availability of internal resources such as skills, finances, and technology are noticeable. Furthermore, absorptive capacity and innovation may also differ across industries and sectors. The links between absorptive capacity and innovation may be stronger in the manufacturing industry, where innovation is a critical source of competitive advantage, compared to the commercial trading industry. This may consequently mask the importance of social capital in innovation because one industry may not have a strong emphasis on innovation relative to others.

Furthermore, the proposed framework is based on the conceptualisation of social capital in Australia that was replicated in the United States. Establishing the applicability of this model to a developing country setting is of great interest. Studies examining the social capital of urban versus rural communities and their influence on SME innovation performance will definitely enrich the understanding of the concept.

Moreover, given the multi-layer and multi-dimensional nature of innovation performance, examining the effects of knowledge on various forms of innovation is imperative. The aim would be to determine how a particular knowledge base propels a small firm to pursue, for example, radical technological innovation. The role of small business process modelling is, thus, important.

Finally, there are substantial measurement issues in studies that deal with new conceptual development. The case of social capital is not an exception. One issue is whether social capital is an objective phenomenon that lends itself to quantification using objective facts and figures or whether it is a subjectively

defined concept that derives its meaning and relevance from the specific context from which it is investigated. Similarly, establishing the predictive or concurrent validity of social capital by comparing it with the results of using other related concepts, like informal institutions, is a major undertaking worth pursuing in the near future.

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