"Social capital as "the missing link" in the growth process: implications for strategic orientation of businesses and sustainable regional development in a remote location"

AUTHORS	Bella Butler David Pick Kandy Dayaram
ARTICLE INFO	Bella Butler, David Pick and Kandy Dayaram (2009). Social capital as "the missing link" in the growth process: implications for strategic orientation of businesses and sustainable regional development in a remote location. <i>Problems and Perspectives in Management</i> , 7(1)
RELEASED ON	Friday, 13 February 2009
JOURNAL	"Problems and Perspectives in Management"
FOUNDER	LLC "Consulting Publishing Company "Business Perspectives"



[©] The author(s) 2024. This publication is an open access article.



Bella Butler (Australia), David Pick (Australia), Kandy Dayaram (Australia)

Social capital as "the missing link" in the growth process: implications for strategic orientation of businesses and sustainable regional development in a remote location

Abstract

Using an original dataset covering a remote region of Western Australia, this paper is aimed at exploring the three features of social capital defined by Putman (1993, p. 167): trust, norms and social networks in terms of examining the use of social capital for sustainable regional development. The purpose of this paper is not to test particular theories, rather it is to analyze the facts and relationships which have been implicit in various theories, such as sustainable regional development, network economy, and social capital. The extensive body of literature provides strong evidences of the link between economic growth and regional development. In the recent years (early 2000s), the focus of research on sustainable development is shifting on economic value of social networks of economic actors and social capital and their importance in sustainable development. Management scholars claimed that the social capital developed in the social networks of firms with external agents improves a firm's competitive advantage and performance. At the same time economic growth and sustainable development of regions are determined by wealth of firms who chose to perform business operations in these regions. This paper identified the paradox between economic growth of businesses and lack of economic development of the region. The study highlights a low level of social capital in the region due to disrupted or destroyed networks which is in turn accompanied by the lack of regional development and serious social problems that are more characteristics of depressed regions.

Keywords: regional development, social capital, a remote region, Western Australia. **JEL Classification:** M1.

Introduction

The recent growth of interest in sustainable development has its roots in the late 1960s when the idea emerged in response to the environmental impacts of post-Second World War growth (Benneworth et al., 2002). The most frequently used definition of sustainable development is that which emerged from the World Commission on Environment and Development (WCED) report Our Common Future: "Sustainable development is development which meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987). This definition, according to Hediger (2000), is based on an ethical imperative of equity within and between generations and implies sustaining the natural life-support systems on the planet, while extending to all the opportunity to improve quality of life. In other words, sustainable development is multi-dimensional, and incorporates many different aspects of living, from pursuing environmental protection and maintaining natural capital, to achieving economic prosperity and equity for current and future generations.

Given "substantial differences in economic performances across regions in virtually every nation" (Porter, 2003, p. 550) and the poor 'fit' of many existing national policies to regional circumstances (Benneworth et al., 2002), it is especially appropriate to address sustainable development at the regional level. The meaning of the word 'region' lies

in the Latin word *regere* 'to govern' (Cooke, 2005). The term 'region' is meaning that as "a meso-level political unit that might have some cultural or historical homogeneity but which at least had some statutory powers to intervene in and support economic development" (Cooke, 2005, p. 89). Moreover, regional actors share certain mentalities or the 'culture' of the region which can be determined by the degree of embeddedness of the region, its institutions and organizations. Embeddedness is defined in terms of the extent to which a social community shares norms of co-operation, trustful interaction, and shows 'untraded interdependencies' (Dosi, 1988) as opposite to competitive exchange and hierarchical norms.

Scholars of sustainable development have traditionally focused on natural resources, physical capital and human capital as key determinants of economic growth and examined these relationships (Solow 1957; Lucas, 1993; Iyer, Kitson & Toh, 2005). In addition, there is an extensive body of literature on regional economic development (e.g., Porter, 1998; Porter, 2003). In the recent years (early 2000s), the focus of research on sustainable development is shifting on economic value of social networks of economic actors and its importance to sustainable development (Cuthill, 2002; Cooke et al., 2005; Danchev, 2005; Iyer et al., 2005; O'Brien, Phillips & Patsiorkovsky, 2005; Western et al., 2005; Williams, 2005). Social networks can be defined as a set of nodes (such as persons, organizations) linked by a set of social relationships (for instance, friend-

[©] Bella Butler, David Pick, Kandy Dayaram, 2008.

ships, transfer of funds, overlapping memberships) of a specified type (Laumann et al., 1978, p. 458). Based on this view, management scholars claimed that the social capital developed in the social networks of firms with external agents improves a firm's competitive advantage and performance (Acquaah, 2007; Burt, 1997; Peng & Luo, 2000).

This paper begins by looking at the positive impact of social capital on organizational performance. It continues by exploring the link between social capital and sustainable regional development. Next, the paper introduces the context of the study a remote region located in the North West of Western Australia – the Pilbara region. In Australia, the importance of social capital in regional development has been widely acknowledged in the literature, however, a consideration of social capital is absent from the Federal and State policy directions. The Pilbara region was selected due to its significant contribution to the Australian national economy and the paradox that arises from this situation. The final parts of the study contain the analysis of the original data set and findings. The study highlights a low level of social capital in the region due to disrupted or destroyed networks, unstable community and lack of trust which are in turn accompanied by the lack of regional development and serious social problems that are more characteristics of depressed regions.

1. Social capital and improved organizational performance

Social capital theory has been known for some time, and nowadays as the coordination capability-competence it "has become a core concept in business, political science and sociology" (Burt, 2005, p. 4). The origins of social capital can be traced to as early as the first decade of the 20th century (Western, Stimson, Baum and Van Gellecum, 2005): the term social capital "has stemmed from the 1920s social theories of the role of institutions and has reached relatively complete form in the "new institutional economics".

The most common definition of social capital as the resources that result from social structure is attributed to Bourdieu & Wacquant (1992, p. 119) and based on the earlier definition of Bourdieu (1980): "social capital is the sum of resources, actual or virtual, that accrue to an individual or group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition". Another often-used definition of social capital was given by Coleman (1988, p. 98 and 1990, p. 302) who emphasized a function of social structure producing advantage: "social capital is defined by its function. It is not a single

entity but a variety of different entities having two characteristics in common: they all consist of some aspect of social structure, and they facilitate certain actions of individuals who are within the structure. Like other forms of capital, social capital is productive, making possible the achievement of certain ends that would not be attainable in its absence". Burt (2005, p. 4) stressed the competitive advantage of structural holes, defining social capital as "the advantage created by a person's location in a structure of relationships".

Social capital asserts that networking relationships provide value to actors such as individuals, organizations or communities via allowing them access to the resources embedded in actor's social relationships (Bourdieu, 1996; Granovetter, 1992). This early interpretation of social capital focused on how the resources possessed by an individual through the use of close social relationships and networks affect his or her behavior (a micro-micro link) has been developed to organizations (a micro-macro link) (Acquaah, 2007; Baker, 1990; Gulati, 1995). In a number of studies there is a positive link between social capital, acquired by individual actors (mainly, by top managers) from their personal, social, and economic networking relationships with suppliers, customers, competitors, government officials, community leaders, and organizational performance (Acquaah, 2007; Kale, Singh, & Permutter, 2000; Peng & Luo, 2000; Uzzi, 1996; Yli-Renko, Autio & Sapienza, 2001). Furthermore, strategy scholars stressed unique characteristics of social capital compared to other forms of capital, for example, the fact that social capital is not easily alienable from the firm as physical or financial capital and it is not as mobile as human capital. Instead, it is tightly bound with the organization, development and strategy of the firm (Moran, 2005; Nahaliet & Goshal, 1998). Such characteristics of social capital make firm's ability to develop the firm's most enduring source of its competitive advantage (Moran & Ghoshal, 1999; Moran, 2005; Burt, 2000; Adler & Kwon, 2002).

2. Social capital and sustainable regional development

Social capital was called by some economists and political scientists as "the missing link" in the economic growth and regional development (Iyer et al., 2005). Such understanding of the role of social capital is based on the view on social capital as "the networks, norms, relationships, values and informal sanctions that shape the quantity of and co-operative quality of a society's social interactions' (Performance and Innovation Unit, 2002, p. 5). This view is aligned with Putman's (1993, p. 167) definition of social capital as "features of social organization,

such as trust, norms, and networks, that can improve the efficiency of society by facilitating coordinated action". Furthermore, Putman (2000, p. 19) stresses that "social capital refers to connections among individuals – social networks and the norms of reciprocity and trustworthiness that arise from them" and it facilitates coordination and cooperation within a society for mutual benefits of its members.

Indeed, there is a growing literature showing a positive correlation between the better use of social capital and the greater economic growth and regional performance. Many researchers have concluded that societies with high quality of social capital have reached high achievements in their development despite the restricted access to resources and modern technologies (Danchev, 2005; Iyer et al., 2005; O'Brien, Phillips and Patsiorkovsky, 2005; Western et al., 2005; Williams, 2005). In addition, researchers found out that social capital may influence the other forms of capital that affect growth. For example, social capital influences a firm's ability to promote and exploit human capital (Gooderham et al., 2008; Nahapiet & Ghoshal, 1998; Narayan and Prittchett, 2000, cited in Iyer et al., 2005).

Moreover, Cooke et al. (2005) claim that social capital enhances innovation. They found out that "innovative firms tend to make greater use of collaboration and information exchange, be involved in higher trust relationships, and make greater use of non-local networks" (Cooke et al., 2005, p. 1074). Non-local networks or "weak ties" (Granovetter, 1973, 1985), less intense relationships with others are a source of strength because they provide access to new information or other kinds of resources that are unavailable to those who are locked into highly dense, self-contained networks (Granovetter, 1973).

Danchev (2005, p. 26) noted that "social capital plays some specific role in sustainable development". This is explained by that fact that, in contrast to other forms of capital such as natural, technical or human, deterioration of social capital cannot be compensated for by the rise of other forms of capital. Furthermore, in the case of worsening of social capital, "all the other forms of capital including development itself deteriorate" (Danchev, 2005, p. 26). Thus, analyzing sustainable development as transformation of the inputs into outputs without any deterioration, it is imperative to prevent this deterioration of the most important inputs, including social capital.

3. Regional development in Australia

In Australia, the importance of social capital in regional development has been widely acknowledged in the literature regarding the broad national perspective, however, with the exception of South Aus-

tralia (Western et al., 2005), there has been little analysis at the state and local levels. In spite of the clearly outlined relevance of social capital for regional development, Western Australian regional policy (Department of Local Government and Regional Development, 2005) largely ignores the issue. In the policy documents published by the Western Australian government, a key focus is that of people and communities (Department of Local Government and Regional Development, 2005). Whilst this clearly recognizes the importance of social relationships, a consideration of social capital is absent from the policy directions. This is quite surprising, given the wide acceptance of social capital as a key component of both sustainability and regional development.

In recent years, the Western Australian state government has developed a set of regional policies in which sustainable development is a central theme. This is reflected in the Regional Priority Plan for the Pilbara Region (2003). This plan is now nearly five years into its life and has formed the basis of the activities of local development agencies such as the Pilbara Development Commission. As one of the senior officer of this institution explained, "we have to think beyond the lives of the mines and create an alternative industry sector, not driven by mining". The next section introduces the Pilbara region and discusses the development problems and issues it faces.

4. Context of the study – the Pilbara region of Western Australia – and research questions

The Pilbara region of Western Australia was selected due to its significant contribution to the Australian national economy and the paradox that arises from this situation. Western Australia counts approximately one-third of Australia's merchandize exports (Department of Industry and resources, 2006). As opposite to a trade deficit of A\$13,288 million at the National level during the June quarter of 2006, (Australian Bureau of Statistics, 2006b), Western Australia had a trade surplus of A\$6,412 million (Australian Bureau of Statistics, 2006c). In turn, the Pilbara region is of major importance to the state of Western Australia. The region produces 55 percent of two of the State's major export commodities (minerals and energy). It accounts for virtually all of Western Australia's production of crude oil, petroleum condensate, liquefied natural gas, and natural gas. Significantly, the Pilbara region accounts for 97 percent of Australia's iron ore production (Department of Local Government and Regional Development, 2003b). Obviously, the Australian economy is heavily dependent on Western Australian. However, the continued success of Western Australia based on the continuing exploitation of the

natural resources located in the Pilbara region. Thus what happens in the Pilbara has a significant influence on the rest of the nation.

The Pilbara region is located in the North West of Western Australia and covers a total area of over 500,000 square kilometres (Department of Local Government and Regional Development, 2003b). The nearest large urban centre is the city of Perth some 1500 km south. The total population of the Pilbara in 2004 was 39,229 (Department of Local Government and Regional Development, 2006a), with an overall population density of 0.07 people per square kilometre. The age-sex structure of the population shows a predominance of males in the 20 to 39 age group forming 25% of the population with women, high school aged children, and the elderly being under-represented (Australian Bureau of Statistics, 2002). This is a characteristic of a region dominated by resource extraction industries while secondary economy, which would continue regional development after the resources run out, is not evident.

The mining industry now accounts for 96 percent of the dollar value of the region's industrial activity (Department of Local Government and Regional Development, 2003a). This dominance of the mining industry is reflected in the employment profile of the region in that it directly employs a quarter of the total workforce. In spite of sustained economic growth in the region since the beginning of the 1990s, represented by a steady increase in the value of production of iron ore (approx. 60 percent), oil (400 percent), liquid natural gas (270 percent), and natural gas (70 percent), the population has steadily declined by 0.4 percent over the decade to 2005 (Department of Local Government and Regional Development, 2006a). Furthermore, the size of the labor force in the region has remained relatively stable at around 25,000 whilst the unemployment rate has remained within a narrow 5 percent to 6 percent band. These trends contrast significantly with the growth of employment in the region. In 2002/03, employment in the Pilbara grew by 3.9 percent, more than double the average growth rate for Western Australia. But the population of the Pilbara grew by only 0.2 percent over the same period compared with 1.3 percent growth for the State (Department of Local Government and Regional Development, 2006b). In spite of full employment combined with sustained economic growth, the population and workforce of the Pilbara region remain either stagnant or in decline.

The statistic above shows that the wealth being generated in the Pilbara region is not being felt within the region. The region is dependent on the resource sector and the secondary economy has not yet been

established. In addition, the region experiences a range of emerging serious social problems such as homelessness, social exclusion, drug and alcohol abuse, and population stagnation and decline that are more characteristic of depressed regions. It can be concluded that despite the booming resource sector and declared importance of sustainable regional development there are no evidences in the region which demonstrate it.

The study was designed as a problem diagnostic to explore how do community members assess the quality of life in the Pilbara and how do they address the challenges. What is their usual circle of communication? What meaning do community members attach to the understanding of social capital? How much confidence do you have in your society?

5. Method

The researchers identified and contacted potential participants to explain the study and request their participation. The researchers then travelled to the Pilbara region to interview participants. A letter explaining the research and a consent form were given to participants before the interviews were conducted.

This sample consisted of 21 members of the Pilbara community who had various roles in public and private sector organizations that had a direct interest in regional development in the Pilbara (e.g., State government agencies, local government, tourist operators, local business owners, NGO's, and large companies operating in the Pilbara). This research focused primarily on those organizations with a direct interest in the social, environmental and economic development of the Pilbara. All participants were either currently residents in the Pilbara or had recently left the region.

Data were collected through semi-structured interviews exploring the views of participants about regional development both from their organizational perspective and their own personal views. The interviews lasted between 30 to 60 minutes. All of the interviews were tape-recorded, transcribed and imported into the N6 qualitative data analysis computer software application. The data were coded and analyzed according to the three features of social capital defined by Putman (1993, p. 167): trust, norms and social networks. The constant comparison method (Silverman, 2001) was used to compare and contrast emergent themes through the data.

6. Results

The results of the study are presented in order of the three features of social capital defined by Putman (1993, p. 167): social networks, trust and norms.

6.1. Social networks. While participants of the study recognize the importance of social networks, they communicate mainly in their close professional vertical circles rather than in social networks community wide. For example, as participants noted:

"I think it is really important to be able to communicate with professional in other towns".

"It is always a benefit to be able to communicate with other people and bounce ideas around and have your own ideas critiqued more thoroughly and give yourself an assessment".

"I think it is great to communicate because we are all here to support each other. I am not just talking about professional support because we are isolated from the rest of the world".

"I think people get tired up in their own little circles and, unfortunately, it needs to be aired out sometimes and people get a bit stale. You need to have a new rush in there".

Participants highlighted that they are mostly involved in formal or vertical networks (with suppliers or buyers, superior structures at the State level, local authorities). For example, as a government official explained:

"We are involved with the Pilbara Development Commission and we have a close reliance on them".

Other participants admitted that they communicate regarding staffing issues, other resources, have meeting at different hierarchical levels within their organizational networks or governmental institutions. Even so some participants claimed that they have "a brilliant networking", their network involves participants from the vertically integrated governmental institutions rather than involves social members:

"Everybody work really well with each other: we have three or four committees which are based on the services in the Pilbara region (...) There is always meetings going on and really great networks".

Other participant said that they are

"...involved with a group called the Pilbara Accord which is to do with the police".

Formal networks and formal norms in the region can be used to develop and use social capital; however, informal networks and norms are missing in the region.

Most of the respondents expressed their concerns that local networks are interrupted by fly-in flyout work arrangement in the resource sector and caused by its turnover of the population, for example, as it was explained: "One of the factors which mitigate against the region's ability to develop social capital is that we still have quite substantial turnover of population in all sectors of the economy".

"The main problem here is that it is a transient population; it is difficult to maintain a core group of people".

"Fly-in fly-out forces have a strong impact on the community because these people do not spend their money there. They take from the area resources. They normally live in camps with all the facilities, so they do not use local businesses — everything (food, recreational activities, etc.) is supplied by the camp. The resource companies make their purchases in the Eastern states or metropolitan area but not locally".

Fly-in fly-out employees do not have roots in the local community; they stay there temporarily, having their families and networks in other places. The resource companies provide their employees with accommodation and often other services, so fly-in fly-out employees do not spend their money locally. This creates a serious threat for local businesses. As one study's respondent explained:

"Local businesses are really stretching themselves... they are doing a great job".

"They [local businesses] lose their people such as painters, trades people, electricians, mechanics, all these people who would normally work in small business. Small businesses here really suffer because they cannot provide comparable [to the resource companies] pay and other benefits".

At the same time, a sustainable community is based on local businesses. As it is emphasized by another participant:

"Local businesses are the backbone of local community: without garages, flower shops, cafés there would not be anything here".

Measures of social capital in the Pilbara, based on the physical structure of a network and its characteristics such as size, capacity, openness, homogeneity and density (Coleman, 1988; Western, 2005) show the following results. Size of the network which equates the number of people who are part of a network or even their geographical dispersion is small and industry-based. Capacity which relates to the quality of the network and the ability to draw favors from people within a given network is very limited due to small size and high homogeneity of a network: indeed, people understand potential benefits of networking, however, having underdeveloped networks they cannot draw favors. Homogeneity, in turn, is characterized by similarities of members of the network, and it is very high in the Pilbara: most of networks are based on the hierarchical industry relationships, some networks are built deliberately to link together certain social groups (e.g., youth or women networks). These networks have similarities on all dimensions such as age, gender, wealth, activities. Openness of the network is best understood by its opposite: closedness (Wester, 2005). A closed network is the one in which social relationships exist amongst all members of the network and is particularly effective in creating a strong sense of culture, and shared norms and sanctions amongst group members (Coleman, 1988). In the Pilbara, there are not close networks as such due to very unstable community and interrupted networks. Since the community is transient, there are no strong norms developed amongst its members. Final measure – destiny – related to overlapping of networks: the likelihood that members of a network have common relationships in other networks. Network destiny is also low in the Pilbara due to the formal nature of networks. Members are likely to be involved in their networks via work or social group memberships, however, there is no communication amongst these networks in a wider community. These measures of social capital based on network structure highlight very low level of social capital in the Pilbara.

6.2. Trust. Although there is recognition of importance of partnership between state, local and federal government agencies for benefits of the community development expressed by a number of study' participants, such partnership is not in place in real life. All study participants revealed that there are no communication and trust between the three levels of governmental institutions responsible for regional development. The following quotes support the statement:

"There is no understanding in Perth [state level] and particularly in Canberra [federal level] of what is important to this community or this region".

"They [state government] would not have the issues of what the Pilbara is facing or what the Kimberly is facing. Their focus is on the railway from Perth (capital of the state) to Mandurah rather than on the Karratha boat ramp".

All participants said that they either never heard of or did not trust the Pilbara Development Commission – the State level authority – in terms of expecting this governmental institution to know the needs of the region and how they should be addressed. At the same time, state level government officials are very critical about functioning the federal institution. For example, when one of the senior officials of the Pilbara Development Commission was asked about the the Pilbara Area Consulting Committee, a federal institution, his response was:

"That is a shining example of a commonwealth initiative of wasted time, effort and money".

Moreover, in addition to the Pilbara Development Commission, a local authority, The Pilbara Regional Council, was created by local people. As one of the participants explained, "and they, the Pilbara Development Commission, did not necessary communicate a particular issue, each council would consider it on an individual basis and the Pilbara Development Commission would get perhaps mixed responses, whereas we found that the advantage of having a peak body as the Pilbara Regional Council at the regional level".

Participants are very sceptical about the ability of local government to address the issues of regional development. As one participant noted,

"...they [local government] look after themselves well: what can be spent on the community, is [in reality] spent elsewhere".

No one trusts anybody in the region: small and medium sized businesses do not trust resources companies and even view them as their major enemies. As several study's participants explained, local businesses have trouble to retain staff because they cannot match living standards (e.g., paid accommodation) and salary packages to those of resources companies. Even governmental agencies are "fighting for staff which can easily step in the mining sector and get paid 100,000-150,000 per annum" and cannot fill in advertising positions, according to our study.

It is common that not only fly-in fly-out staff of the resource companies spend their money outside the region: local people also tend to use professional services outside the region due to lack of trust in availability and quality of local services. As one study participant explained,

"Two years ago I had my daughter in Perth; why not in a local hospital? Well, I simply did not trust them that in case if anything goes wrong they would be able to fined the right solution".

"I have my financial advisor and other important services in Perth".

The region displays the paradox between the recognition of trustworthy communication and togetherness to deal with challenging issues of such a remote and isolated location and lack of such communication and trust in reality. Lack of social or informal networks leave room only for "generalized trust" or institutional trust (Dasgupta, 1988; Putman, 1988) which is trust afforded to strangers. It is general because it is not aimed at individuals, rather it related to institutions. This level of generalized trust in government, local services is also low.

6.3. Norms. Norms governing network behavior relate on trust, unity and reciprocity (Western et al., 2005). Destroyed social networks, unstable community and lack of trust do not contribute to the forming and using positive norms for the community development. Although, there is a common understanding of the importance of building a secondary economy and addressing environmental issues, present state of the regional development highlights the opposite. Many participants of the study appreciate the importance of "finding the right balance between fast development in the mining industry and the maintenance of the environment". Most participants are concerned about the future of the region and have an emotional attachment to it, for example,

"People will always be willing to live in Pilbara. It is such a lovely climate here. There is a lot of opportunities for outdoor activities. The entire life style is different here".

"There are beautiful sceneries around here, it is not only iron ore mines".

Despite such a positive perception of the region's lifestyle, most participants of our study have very definite plans to leave Pilbara. Normally, people would reside in Pilbara for five years and then leave for a better place in the metropolitan area or well established Middle-west or South-west regions of the state. Many study participants shared their plans to leave region "at the end of this year", "next month", "a couple of years time" or "when retire". For some participants, the following career path is back to Perth because they do not see opportunities for their development in Pilbara, others are desperate to get back to "normal life". The following quote explains a common perception of region's ongoing problems and inability to solve them:

"Everyone in the community is fed up of the ongoing issues and not getting response to them".

"People cannot afford to stay here because housing is very expensive and hard to get".

"There is simply not enough people here to improve facilities: bring more people here and the quality of life will be improved".

All respondents showed their concern about the community by saying that there is no stable community where people are making friends, know other for many years. Most people have "five year plan" to stay and leave the Pilbara and they rely mostly on their families and friends in places of their origin where they eventually want to come back from the Pilbara. The situation shows the para-

dox once again: residents like the lifestyle, but still leave the region due to social issues, limited services and poor infrastructure and high costs of living. Thus, the conclusion can be made that common norms and perceptions show also low social capital developed in the Pilbara.

Discussion and conclusion

The findings of this study are aligned with the previous research on correlation between economic growth and regional development and the level of social capital. The economic wealth generated in the Pilbara is not reflected by the economic growth of the region. The region is driven by the mining industry and all the other businesses are weak and the secondary economy is not yet in place. Moreover, stagnant economic development of the region is dramatized by serious social problems such as homelessness, social exclusion, drug and alcohol abuse, and population transience that are more characteristic of depressed regions. Despite the booming resource sector and declared importance of sustainable regional development there are no evidences in the region which demonstrate it.

The Pilbara region has no stable community nor networks. Most of people working and residing in the region have their social networks left outside the region, thus they have non-existent networks in the Pilbara. Structural characteristics of networks reveal low social capital, low trust and lack of strong regional norms of expected positive behavior. The region highlights a paradox between dependence on communication amongst various governmental institutions, community members which is critical in a remote and isolated location and lack of such networks and communication in reality. All participants of the study appreciate the need of collaboration for growth and prosperity of the region, yet there is no such open communication and sense of unity and reciprocity in the region. It can be concluded that social capital is "the missing link" in the growth process in the Pilbara.

Considering evidences provided by the literature on positive correlation between the greater use of social capital and economic growth and regional performance, it would be advisable to focus the following research on the question: How to develop social capital, keep the social capital stable, or at least not deteriorating? A possible direction of this research would be a positive case study of public-private partnerships and how these partnerships contribute to the development of social capital in the communities in which they operate.

References

1. Acquaah, M. (2007). Managerial social capital, strategic orientation, and organisational performance in an emergent economy. *Strategic Management Journal*, 28, pp. 1235-1255.

- 2. Adler, P. & Kwon, S. (2002). Social capital: prospects for a new concept, *Academy of Management Review*, 27 (1), pp. 17-40.
- 3. Baker, W. (1990). Market networks and corporate behaviour, American Journal of Sociology, 96, pp. 589-625.
- 4. Benneworth, P., Conroy, L., & Roberts, P. (2002). Strategic Connectivity, Sustainable Development and the New English Regional Governance. *Journal of Environmental Planning and Management*, 45 (2), pp. 199-217.
- 5. Bourdieu, P. (1980). Le capital social: notes provisoires, Actes de la Recherche en Science Sociales, 3, pp. 2-3.
- 6. Bourdieu, P. & Wacquant, L. (1992). An invitation to reflexive sociology. Chicago: Chicago university Press.
- 7. Bourdieu, P. (1996). The forms of social capital. In *Handbook of Theory and Practice for the Sociology of Education*, Richardson, J. (ed.). Greenwood: New York, pp. 241-258.
- 8. Burt, R. (2000). The network structure of social capital. In *Research and in Organisational Behaviour*, 22, Sutton, R. & Staw, B. (eds.). JAI Press Greenwich, CT; pp. 345-423.
- 9. Burt, R. (2007). The contingent value of social capital. Administrative Science Quarterly, 42, pp. 339-365.
- 10. Cuthill, M. (2002). Exploratory Research: Citizen Participation, Local Government and Sustainable Development in Australia. *Sustainable Development*, 10 (2), May, pp. 79-89.
- 11. Coleman, J. (1988). Social capital in the creation of human capital. American Journal of Sociology, 94, pp. 95-120.
- 12. Coleman, J. (1990). Foundations of Social Theory. Cambridge, MA: Harvard University Press.
- 13. Cooke, P. (2005). Regional Knowledge Capabilities and Open Innovation: Regional Innovation Systems and clusters in the Asymmetric knowledge economy. In Breschi, S. & Malerba, F. (eds.), *Clusters, Networks, Innovation, Oxford University Press*, 2005, pp. 80-109.
- 14. Cooke, P., Clifton, N., & Oleaga, M. (2005). Social Capital, Firm Embeddedness and Regional Development, *Regional Studies*, Vol. 39 (8), pp. 1065-1077.
- 15. Danchev, A. (2005). Social Capital Influence on Sustainability of Development (Case Study of Bulgaria), *Sustainable Development*, 13 (1), pp. 25-37.
- 16. Dasgupta, P. (1988). Trust as a commodity, in Gambetta, D. (Ed.) Trust, Basil Blackford, Oxford.
- 17. Department of Local Government and Regional Development. (2003a). *Regional Development Policy*. Perth: Government of Western Australia.
- 18. Department of Local Government and Regional Development. (2003b). *Pilbara: Economic Perspective*. Perth: Government of Western Australia.
- 19. Department of Local Government and Regional Development. (2005). *Regional Development Policy Progress Highlights*. Perth: Government of Western Australia.
- 20. Dosi, G., Freeman, C., Nelson, R., Silverberg, G. & Soete, L. (eds.) (1988). *Technical change and economic the-ory*, London, Pinter.
- 21. Gooderham, P., Monbaeva, D. & Pedersen, T. (2007). The promotion of social capital for knowledge transfer in the multinational corporation. *Proceedings of the Copenhagen Conference on Strategic Management*, 11-12 December.
- 22. Granovetter, M. (1973). The strength of weak ties, American Journal of Sociology, 78, pp. 1360-1380.
- 23. Granovetter, M. (1985). Economic action, social structure, and embeddeness. *American Journal of Sociology*, 91, p. 481-510.
- 24. Granovetter, M. (1992). Problems of explanation in economic sociology. In *Networks and Oeganisations*, Nohria, N. & Eccles, R. (eds.). Harvard Business School Press: Boston, MA, pp. 25-56.
- 25. Gulati, R. (1995). Social structure and alliance formation pattern: a longitudial analysis, *Administrative Scince Quaterly*, 40, p. 619-652.
- 26. Hediger, W. (2000). Sustainable development and social welfare, Ecological Economics, 32 (3), p. 481-492.
- 27. Iyer, S., Kitson, M., Toh, B. (2005). Social Capital, Economic Growth and Regional Development, *Regional studies*, Vol. 39 (8), pp. 1015-1040.
- 28. Kale, P., Singh, H., & Permutter, H. (2000). Learning and protection or proprietary assets in strategic alliances: building relational capital. *Strategic Management Journal*, March Special Issue 21, p. 217-237.
- 29. Laumann, E., Galaskiewich, J. & Marsden, P. (1978). Community structure as inter-organisational linkages. *Annual review of sociology*, 4, pp. 455-484.
- 30. Lucas, R. (1993), Making a miracle. Econometrica, 61, p. 251-272.
- 31. Moran, P. (2005). Structural vs. Relational Embeddedness: social capital and managerial performance. *Strategic Management Journal*, 26, pp. 1129-1151.
- 32. Moran, P. & Ghoshal, S. (1999). Markets, firms, and the process of economic development, *Academy of Management Review*, 24 (3), pp. 390-412.
- 33. Nahapiet, J. & Ghoshal, S. (1998). Social capital, intellectual capital and the organisational advantage, *Academy of Management Review*, 23, pp.242-266.
- 34. O'Brien, D., Phillips, J., and Patsiorkovsky, V. (2005). Linking Indigenous Bonding and Bridging Social Capital, *Regional Studies*, 30 (8), pp. 1041-1051.
- 35. Peng, M. & Luo, Y. (2000). Managerial ties and firm performance in a transition economy: the nature of macrolink, *Academy of Management Journal*, 43 (3), pp. 486-501.
- 36. Performance and Innovation Unit (2002). Social capital: a discussion paper, April. PIU, London.
- 37. Porter, M. (1998). The Adam Smith address: locations, clusters, and the "new" microeconomics of competition. *Business Economics*, 33 (1), pp. 7-13.
- 38. Porter, M. (2003). The economic performance of regions, Regional studies, 37 (6 & 7), pp. 549-578.
- 39. Putman, R. (1993). Making democracy work. Princeton, Nj: Princeton University Press.

- 40. Solow, R. (1957). Technical change and the aggregate production function. Review of Economics and Statistics, 39, p. 312-320.
- 41. Uzzi, B. (1996). The sources and consequences of embeddedness for economic performance of organisations: the network effect, *American Sociological Review*, 24, pp. 759-780.
- 42. Western, J., Stimson, R., Baum, S. and Van Gellecum, Y. (2005). Measuring Community Strength and Social Capital. *Regional Studies*, 39 (8), pp. 1095-2005.
- 43. Williams, C. (2005). Fostering Community Engagement and Tackling Undeclared Work: The Case for an Evidence-based 'Joined-up' Public Policy Approach,. *Regional Studies*, 39 (8), pp. 1145-1155.
- 44. World Commission on Environment and Development (1987). *Our Common Future*, Oxford University Press, Oxford
- 45. Yli-Renko, H., Autio, E. & Sapienza, H. (2001). Social capital, knowledge acquisition, and knowledge exploitation in young technology-based firms, *Strategic Management Journal*, June-July (Special Issue), 22, pp. 587-613.