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Virtual Communities of Practice for Regional Small Businesses: Bringing Informal Networks Online

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Abstract

Virtual communities of practice (VCoPs) are online business networks which are increasingly used by large organisations as a key strategy for creating value in the knowledge-based economy of the 21st Century. This paper examines the applicability of VCoPs to cross-industry regionally clustered small business networks. Interviews conducted with government and industry informants in two regional areas of Australia indicate that these strategies used for establishing VCoPs are applicable to such small business networks. Both regions had regional networks with active member involvement displaying CoP characteristics. Significant social capital existed on which VCoPs could be built, and there were viable alternatives to satisfy the roles of sponsors and leaders. There were, however, significant impediments that will have to be addressed before VCoPs can be implemented such as the apparent reluctance of many SME owners to use the Internet and ICT generally, and the preference for informal networking. Funding to ensure that VCoPs are sustainable was also an issue. VCoPs appear to be extremely useful in linking small businesses in regional areas and in the development of viable regional clusters.

1. Introduction

Small and medium enterprises (SMEs) are recognised as the major source of prosperity and employment and are critical to regional development (Commonwealth of Australia 2003). Many regional development initiatives (such as *Networking the Nation* and *Connect Victoria* in Australia) have focused on implementing information and communications technologies (ICTs) in the belief that this can stimulate regional development by linking regional and metropolitan areas (DIIRD 2003). The results of these ICT programs and recent research on SMEs illustrate that ICT initiatives alone are insufficient for sustained regional development (Hearn et al. 2004, Tann et al. 2002). Although ICTs can be used to enhance communication and knowledge exchange among SMEs and provide new forms of value formation (Benbya et al. 2004), the preoccupation

with ICT infrastructure has often obscured the underlying social and economic characteristics of a region. We believe that, unless these socio-economic dynamics and the nature of regional clusters and networks are understood, ICT-based initiatives alone will be ineffective (Mason et al. 2004, Mason et al. 2005, Mason et al. 2006). Instead, we posit that ICT initiatives should be used as a means of enhancing social capital within a region (Karlsson 2005).

We have argued previously (see Mason et al. 2005, Mason et al. 2006) that value creation in Communities of Practice (CoPs) in large organisations exhibit characteristics similar to value creation in regional SME business networks. On this basis, we believe that insights from the introduction of Virtual CoPs (or VCoPs) into large firms can also provide a useful way of conceptualising the potential supporting role of ICT in regional SME business networks. However, there has been limited empirical research which generates insight into how the VCoP approach, used successfully in large organisations, can be used to create value for regional SMEs.

This paper reports on the findings from the first stage of a three-stage empirical investigation which will address this gap in the literature, with a particular focus on the potential of VCoPs to create value in cross-industry SME business networks. In this first stage we interviewed industry and government leaders in two regional areas of Australia. The purpose of these interviews was to gain the leaders' views on the issues that need to be addressed if VCoPs are to be incorporated into existing cross-industry SME business networks.

The paper starts with a brief overview of why the CoP approach is applicable to regional SME business networks (see a more detailed conceptual argument in Mason et al. 2004, Mason et al. 2005, Mason et al. 2006)). It then examines the VCoP literature to identify the issues which large organisations face when trying to move their CoPs successfully online. We then use these issues as the basis for discussing the challenges that might be critical when regions try to incorporate VCoPs into their existing business networks, based on the insights provided by the regional leaders we interviewed.

2. CoPs and Regional SME Business Networks

Communities of practice (CoPs) are an integral part of many formal knowledge management programs in large organisations (Lee et al. 2002). CoPs are able to harness the knowledge held by individuals, which becomes a valuable asset to the organisation when it is shared. A key advantage of CoPs is the ability to clearly elicit their value (Wenger & Snyder 2000). The collective sense making acquired in CoPs changes the culture of the organisation (Zboraiski et al. 2004).

The regional development literature offers four recurring themes which suggest that the CoP approach used in large organisations is applicable to regional SME business networks: a culture of innovation, intellectual capital, social capital, and value networks. A brief overview of each theme is provided here.

CoPs involve a change in culture and, as Zboraiski et al (2004) attest, this requires that management foster a climate which facilitates knowledge transfer, and innovation. A *culture of innovation* is a characteristic of successful clusters. A learning region is one that is able to facilitate innovation (Smedlund & Poyhonen 2005) and this is achieved through the creation, transfer and implementation of knowledge using the three sources of intellectual capital - people, organisational infrastructure, and relationship capital (Stewart 1997).

Intellectual capital (IC) is the most critical resource in this value creation process and gearing strategy towards it enables the managing of intangible assets (Rylander & Peppard 2003). Senge's (1990) learning organisation, the predecessor of the learning

region, was designed to enable organisations to innovate continuously and Communities of Practice were articulated to facilitate this process (Wenger et al. 2002).

A necessary prerequisite of CoPs is *social capital*, the value accessible from networks. Successful clusters have highly developed trust based social capital where the strongly embedded network and relationship systems enable the transfer of good practice within the cluster and are effective for extending beyond the cluster to the international stage (Braun et al. 2005). These *value networks* occur when informants conduct transactions involving exchange of tangible or intangible value (Allee 2002). Recently Smedlund and Poyhonen (2005) applied the concept of value networks to regionally clustered SMEs. This identified the crucial role of the CoP-style developmental network as a prerequisite for trust and communication critical to the effective functioning of the other two networks – the strategic production and innovation networks and for improving the social capital of the region.

It appears that organisational CoPs have much in common with successful regional clusters. We therefore believe that regional ICT initiatives are more likely to be successful if they learn from the ways in which large organisations have incorporated ICT into their CoPs to form Virtual CoPs (or VCoPs).

3. Moving CoPs Online: Lessons from Large Firms

VCoPs use ICT to support CoPs which are geographically dispersed, because they provide a vehicle for distributed interaction when face-to-face interaction between CoP members is not possible. A significant challenge in establishing VCoPs, however, is successfully transferring CoPs online. VCoP research identifies various issues that need to be addressed, the most salient of which are included in the following overview.

The move to the virtual environment necessitates formalisation of the CoP. The intent and goal of the CoP needs to be declared if the organisation is to be willing to provide resources to support its ongoing interactions. This involves formalising lists of members, establishing the appropriate communication media, and defining rules of engagement in the VCoP. For this to be achieved, members have to publicly state their interest in the domain and intent to commit to furthering its practice (Henri & Pudelko 2003).

Dube et al's (2005) study of eighteen VCoPs found that merely identifying the CoP and providing ICT did not make them successful. Key success factors they identified included the active involvement of a full-time leader, the relevance of the topic under discussion to the daily operation of the members, 'institutional formalism' (p 160) or the integration of the VCoP into the organisation, and the support of senior management (Dube et al. 2005). All VCoPs studied in this project were established using the same strategy:

1. An executive manager responsible for promoting and sponsoring the VCoP and appointing the leader
2. A full-time leader to guide and manage it
3. An external coach assigned by the research team to assist the leader in the daily operation of the VCoP.

Dube et al (2005) also found that members of existing informal networks and CoPs did not want to incorporate the use of ICT and would not be involved in VCoPs unless they could see benefit in doing so. Indeed, the CoP members believed that relying solely on ICT without face-to-face interactions would cause the demise of their CoP. In addition, ICT literacy of members was found by Dube et al (2005) to be an important determinant of the level of involvement in VCoPs.

Interestingly, Dube et al (2005) provided evidence that the level of ICT usage was not a significant factor in the success of the VCoPs. Instead, it was the relational aspects which were most influential, such as a supportive environment that could overcome the lack of resources. Conversely, the authors found that obstructive environments existed in all failed VCoPs. This research mirrors findings by previous researchers who have also identified the importance of strong leaders to manage and coordinate VCoPs, a high status sponsor to champion them, and committed members engaged around a relevant topic or domain of interest (Lee et al. 2002, Lemons 2005, Smeds & Alvesalo 2003).

Ardichivilli et al's (2003) study of VCoPs in Caterpillar suggests that the VCoP success factors outlined above will not encourage member participation unless two types of trust are supported:

- *Knowledge-based trust* developed through ongoing interactions between members enabled members to know each other so well that they could predict how they would react.
- *Institution-based trust* emerged when organisational rules, procedures, and processes were so transparent that members believed that they would be protected from negative responses. This form of trust ensured the existence of good social capital within the organisation where strong ties bound the group together, and weak ties facilitated knowledge sharing across intra-organisational boundaries (Huysman & Wulf 2005).

Recent multinational VCoP research by Kimble and Hildreth (2005) mapped two key aspects of virtual interaction - personally relationships and shared physical artefacts, to Wenger's (1999) intrinsic duality of meaning that occurs in CoPs where participation (interpersonal interaction) and reification (creation of durable things) are inextricably intertwined. This research illustrated that mutuality and trust formed the basis for:

- the interrelatedness of these two aspects of social capital, where members' ongoing face-to-face meetings strengthened personal relationships and enhanced bonding capital (knowledge sharing within the group); and
- the creation, sharing and maintaining of 'shared artefacts' (planning documents) strengthened bridging capital (knowledge sharing between groups) and ensured ongoing participation in the virtual domain.

On the basis of earlier research, therefore, it can be concluded that moving CoPs into the virtual domain requires:

- a topic relevant to members' daily operations;
- an executive level person to sponsor and promote the VCoP;
- organisational infrastructure to provide resources;
- a pro-active leader to keep the VCoP 'alive';
- members' commitment enabling formalisation of VCoP;
- trust;
- provision of ICT.

This raises the issue of how the benefits achieved by large organisational VCoPs can also be achieved for networks of SMEs in regional areas and how it can contribute to the development of regional clusters. Incorporating VCoPs into regional SME business networks clearly adds further complications to those experienced by large organisations.

For example, these business networks often operate across industries, and there is no participation mandates which often apply in large firms. In this paper we therefore address the following question:

How can CoPs among SMEs in a regional context be moved to the virtual realm?
To what extent are the VCoP formalisation strategies used successfully by large organisations, relevant to cross-industry regional clusters?

4. Research Methodology

In order to investigate this issue we undertook research in two non-metropolitan areas in regional Australia to establish if there are any patterns emerging that would be applicable to other regions. It is not an explicitly comparative study but it was necessary to ensure that more than one region was investigated to gain a broader perspective on the issue than a single case study would afford while still providing an in-depth, holistic view for each region of the role of governments and their interventions, the significance of SMEs, and the potential of ICT in enhancing value creation within cross-industry business networks in regions.

The first stage of this three stage empirical research is reported in this paper. It involved face-to-face, semi-structured interviews of approximately one hour conducted with leading regional economic development figures in each region, including representatives of major industry, organisation, professional groups, and all levels of government. The informants were selected because they performed roles instrumental to the economic development in the region especially as it relates to the networking of cross industry SMEs. The informants' roles (eg Regional Manager for the State's Regional Development Authority, Senior Manager Strategic Markets in the Bank) gave them experience and insights into the range of cross-industry business networks and into the broader culture and fabric of the regions.

The informants were identified through web-based research on the regions, from governmental and industry sources, and through regional publications. During the first stage, the interviews for one region were conducted, transcribed and analysed prior to the commencement of the second case. Both cases were then analysed to identify commonalities and differences which are discussed in this paper. The informants were approached by post approximately one month prior to the interviews. A letter briefly explained the purpose of the interview and a more detailed description of the research project. A week later they were telephoned and appointments for the interviews were made. Indicative of the interest in this research project only one of the 24 people approached declined to be interviewed.

We recognise a major limitation of this part of the study is that the views expressed are of significant observers and not those of SME owners themselves. It is therefore necessary to validate these findings in further research where the views of the SMEs will be sought directly. The first stage however, was necessary to provide background, context and an insight into the development issues in each region.

5. Views of the Regions

The information provided by the informants, all prominent regional economic development figures, interviewed in stage one allowed us to compile an overview and description of each region. The regional names used here are pseudonymous.

5.1 Camrooka

Camrooka with a population of 96,000 people is geographically discrete because the boundaries of the township are clearly discernable. It is two hours journey from the capital city, consequently its citizens live, work and socialise within the region. The major industry is manufacturing conducted by medium sized businesses with small businesses subcontracting to them. The service sector is economically significant, there are many large government instrumentalities including the largest employer, the region's health care body.

SMEs are the driving force behind the region's economy representing 75 percent of employment. Most are micro businesses with fewer than five employees. Many of the Camrooka informants perceive SME owners as either *entrepreneurs* or *life stylers* as one commented "There's two types of businesses here! There are the ones that are run as a business, be they one person or 200! And there are those that are run as a, for want of a better word, lifestyle business." Informants' perceptions are that:

- *Entrepreneurs* take advantage of opportunities, maximise business potential, appreciate and recognise the benefits of knowledge sharing in networks.
- *Life stylers*, the majority, possess little knowledge of business practices, lack appreciation of business opportunities, perceive competition negatively, and do not trust others. Concern was expressed by informants that these SMEs will have difficulty remaining viable in the future global business environment.

The picture of Camrooka emerges as a dynamic region in which most of the informants recognised the important role small businesses have in the region's success and are cohesively working together to promote the region. The Bank, University and Local Authority actively advocate cooperative networking as a means of enhancing small business and the region as a whole. The Bank is a catalyst for SME development both financially and as a purchaser of services. The University's regional development department is committed to sustainable regional development, is actively assisting industry based networks, and is the owner and major tenant of the state of the art Innovation Park. The Local Authority facilitates much small business by working with industry reference groups. According to many informants Governments at all levels offer initiatives to assist SMEs in the region but the take up is low. They believe that this is most likely due to a lack of trust in governments. Camrooka local government authorities are achieving better SME involvement by sponsoring private providers and the CamGroup business network, described below.

There are many business networks in Camrooka. The informants estimate that up to 80 percent of business activity results from informal networking, however, there is a lack of coherence in these networks. The Bank and University, concerned at this fragmentation of the business environment, brought together a group of economic development practitioners and SMEs to establish the CamGroup network. The main focus was to promote networking as an opportunity of creating and developing cross industry opportunities. Since its inception CamGroup (as viewed by the informants) has developed into the prime networking group in the town. For example one informant described the response from a new member: "Look I've been stuck in my office, my factory for the last two or three years trying to build my business... being here today, has really surpassed me (sic), what I have achieved in the last two years."

CamGroup runs regular meetings which are sponsored, published and promoted by larger company members. These are held as early as 6.30am because as all informants explained, lack of time is a significant problem for SME owners. Eighteen months after CamGroup's inception the Local Authority provided a person one day a week to manage it. Sponsorship from another local company was used to establish a website. All

communication with members is via this site and members are encouraged to briefly describe their businesses on it. Anecdotal stories by most informants suggest considerable value has been obtained by some SMEs from the website. As one informant said: “We put his details on our website, within a short time-frame he got a telephone call from a manufacturer, saying ‘Would you like to distribute our product?’ His turnover went up \$1,000 a week!”

In 2003 CamGroup was incorporated and its business plan articulates its ongoing commitment to developing opportunities for SMEs in the region. Several other business networks have been spawned by CamGroup including an innovation network, an export network, and a network for younger members. YoungCams is a non-aligned professional group established to encourage the young to stay in the region. According to many of the informants, YoungCams has been extremely successful with its membership nearly doubling that of its parent in the first year. One informant commented “the YoungCams network! Which has been very very successful, and this is really set up, mainly set up (sic) to support young professionals, across a whole range of different industries. They move to Camrooka, they have a network.”

Most informants referred to the excellent ICT infrastructure in Camrooka and its capacity to support any SME online initiatives. The city has a dual fibre optic link around the CBD. As one informant commented: “now looking at one of the one of the things that struck me when I arrived here, was the ICT infrastructure that was in place....The fact that at the moment the city’s (sic), round town there are two fibre optic loops being put in place”. The Innovation Park houses a world class bunker style ICT and data storage facility. Despite this infrastructure, however, most informants stated that SMEs have not embraced technology beyond creating static web-sites. The exception to this are the small ICT based firms who are actively involved in national and global web-based markets. These ICT companies are frequently owned and operated by younger people. In fact, many informants perceive issues relating to technology uptake by SMEs as generational. This was illustrated in the following statement by an informant: ‘Coz the oldies won’t be around any more. And I don’t mean that in a bad way. It’s just that they are having trouble with technology and understanding it. The kids that are coming through now are just so connected! They are living in virtual land. So, as time goes on, it will naturally progress itself to be there.’

5.2 Boonaburra

Boonaburra has a population of 203,000 people. Its close proximity to the capital city, one hour by road or rail, significantly influences the economic activity of the region, in fact 10,000 workers, of the region’s 90,000 workforce, commute to the capital city each day. Several of the informants described Boonaburra as having an excellent business mix providing a very balanced economy for 21st Century, with strong manufacturing, and an excellent service sector where its largest employer is the health care body.

SMEs are critical to the local economy representing 85% of employment. Medium sized businesses are perceived by most Boonaburra informants as far more business oriented than their smaller counterparts. These predominately micro businesses were categorised by several informants into three types – the largest group servicing the local community or contracting to large manufacturers; the next group, experts in the export economy actively pursuing markets beyond the region; and the final group, switched on, technologically savvy operators bringing in value from overseas. Most informants described the majority (identified in the first group of owners) as: not thinking strategically, not understanding the value attainable from networks, protective of their knowledge and skills, too focussed on their daily activities, and principally concerned about staying ahead of competitors. One interviewee described the results of a skills

shortages survey in contracting SMEs, which he believed illustrated these short term perspectives: “Now what was fascinating was when we did that small piece of research, it was evident to us, as is evident in all the research, that the small and medium-size employers have no clue around what their labour force needs are. They don’t do succession training, they don’t have anything beyond the one-year plan”. Conversely the entrepreneurial owners are perceived by many informants as obtaining great benefits from network involvement. One of these informants said: “well they are always looking for ways of doing things better because you know it is more difficult for them to survive. So they are very innovative and what they are doing, they are good at trying to do things that improve the way they do things, to be better what they are.” The lack of a mechanism to facilitate these entrepreneurial SMEs was perceived by several of the informants to be a missing opportunity for the region.

Boonaburra emerges as a region where there are many initiatives for stimulating regional development, however, the focus has been until recently on the medium to larger businesses. For example the Local Authority has only identified small business in its economic plan for the first time in 2005. One informant said “the local authority has no idea how to handle small-business. Has got no idea! So they are currently relying a lot on the BoonGroup (an SME network) to help them in handling small-business.” In this environment, several informants stated that small businesses frequently feel disenfranchised and do not participate in organisational and governments initiatives directed towards them. As one informant said “You won't get everyone there, it is hard to get them there!” It was apparent when we analysed the responses from informants that there is considerable duplication in programs geared towards SMEs with many of these lacking a long-term perspective.

Boonaburra is a highly networked city where many formal and informal networks are playing an active role in the region’s economic development. Almost all informants indicated that informal networking is more successful with SMEs, illustrated by the following comment “So what you have is this significant intermeshing of organisations that ultimately creates the economic fabric of the SME fabric that exists in Boonaburra.” Perhaps the most significant SME network is the BoonGroup. It is very proactive in facilitating small business involvement in the region, acting as a think tank, and lobby group encouraging long-term thinking throughout the region. It runs monthly BoonNights after business hours for its members (predominately small businesses). These BoonNights are published, promoted and sponsored by larger members, providing the opportunity for members to express their opinions, gather information on customers, suppliers, and alliance partners. This is illustrated in the following informant comment “they see the BoonGroup as giving that voice, and it doesn't matter if it is the BoonGroup, or...(another forum), but I think it is important to SMEs that they do feel that they have some representation or some conduit to getting your opinions across! And they use the informal occasions at times to quite strongly express their opinions!”

Another significant small business network is BoonBus which formed as a consortium for contract bidding. An informant noted: “we put together two consortia together (sic) that won it on the successive occasions. And they were able, small local companies, to win against the largest companies in the world, and the largest in Australia!” Several informants identified BoonBus as energetically creating industry based networks. A recent joint venture between the BoonBus and the BoonGroup established BoonNet, a web-site to connect existing businesses with those interested in becoming established in Boonaburra. As stated by one informant: “the real benefit [of BoonNet] is to the existing businesses in Boonaburra by channelling potential new SMEs to existing SMEs, so it adds generally to that,...that multiplier effect of businesses that are here providing services to new businesses and say come into Boonaburra”

Boonaburra ICT capacity equals that of Australia’s major capital cities, however a recent regional telecommunications study described by several interviewees showed that

Boonaburra was seriously lagging in its business use of the Internet. According to one informant, “We did a regional telecommunications survey just recently and it shows that we are probably the worst in terms of take-up of the Internet in the State!” Most informants agreed that Boonaburra’s small business owners lack the knowledge and preparedness to integrate computers into their business practices. They contend that this unwillingness to use the Internet is due to a perception that the benefit does not justify the cost of doing so, and any involvement incurs a loss of control of business. In fact only 400 of the 900 BoonGroup members have email addresses! BoonGroup sends communications to its members via the post even though it has a fully operational web site where all members’ details are listed.

6. Implications of Findings

The views of the regional informants and their experiences with cross-industry SME clusters helped us identify the issues which are likely to be important when VCoPs are incorporated into these informal business networks. In the following discussion, we have used the six key issues identified above in the context of large organisation VCoPs as the basis for the discussion: topic relevance, sponsorship, leadership, member commitment, trust, organisational infrastructure, and ICT. The findings from the first stage of the empirical research will now be discussed identifying how relevant they are to this context.

6.1 Relevant Topic (Domain)

Successful VCoPs are built on existing CoPs. The first requirement in analysing the research findings is to establish if there are existing networks exhibiting CoP characteristics where their experiences and knowledge are shared so that new ideas emerge and new knowledge is accumulated. The CoP elements visible in Camrooka are found in CamGroup which was established to create an environment (community) where the SME business enterprise culture (domain) would be developed to share practices and compliment each other rather than compete. CamGroup has spawned three other potential CoPs with their domains centring on innovation, exporting, and young professionals. In Boonaburra potential CoPs are the BoonNights promoted by the BoonGroup, and the BoonBus, the domain of both being the SME business enterprise culture.

6.2 Prominent Sponsorship

In Camrooka the promotion role of champion has been taken by the Bank and University both of which are well trusted. If adequate funding can be obtained from within the network once the Local Authority seed funding ceases, it would appear that this network has the structures in place to become a VCoP. In Boonaburra the champion of the BoonGroup has been very effective in this role by actively promoting SMEs in the region. The champion of BoonBus has also played a very prominent role facilitating industry based SME clusters in the region.

Sponsorship is not merely promotion of the network; it also requires ensuring that adequate resources in the form of personnel, infrastructure (including ICT), and funds are made available to ensure the ongoing operation of the VCoP. It would seem logical that this assistance comes from Government but this has not been a successful strategy. Government-sponsored ICT initiatives in regions have a history of failing as soon as the funding ceases (Hearn et al, 2004). Significantly informants in both regions clearly identified SMEs' lack trust in governments, which could adversely effect SME participation.

There are other sponsorship (funding) possibilities. The BoonGroup in Boonaburra and CamGroup in Camrooka could seek extra funding from their membership for this purpose as both these bodies are trusted. Perhaps a more viable option would be similar to that occurring with Camrooka's CamGroup where the Local Authority has provided 12 months funding to manage the network. The idea is that the set up costs will be provided by government and then the network itself will be responsible for the ongoing sponsoring. In Boonaburra, Government seed funding has been successfully used to establish their BoonBus and BoonNet programs. This is the bottom-up approach recommended by Taylor and Plummer (2003). However, governments will have to be more responsive to such initiatives. For example in Boonaburra the government took 18 months to provide the requested seed money even though the network had obtained dollar for dollar pledges from its larger members. The reason for the delay was that the request did not fall within the structure of government procedures.

6.3 Proactive Leadership

In Camrooka the local authority has released one of its managers one day a week to fill the leadership role in the CamGroup network. This person is responsible for managing and coordinating its operation and membership, and their proactive stance is visible in the high attendance at events since its inception four years ago. The leader of the BoonGroup in Boonaburra is the executive officer of the network coordinating and managing all events and the membership of the network. This network is very old and is held as the best example of its type in Australia with many from other regions coming to see how this success is achieved, including the founders of the CamGroup. He has taken the membership from 200 to 900.

Most researchers (for instance, Lee et al. 2002, Lemons 2005, Smeds & Alvesalo 2003) recommend that there be one person appointed as the champion to sponsor the VCoP, and another as the leader to manage it. In BoonGroup and BoonBus the leader is also the champion although these appear to be running successfully as networks. If they are to implement VCoPs, then separation of roles might be a significant issue that needs to be addressed or monitored.

6.4 Member Commitment / CoP Formalisation

Social capital is the pre-requisite of CoPs and is based on a sense of reciprocity, goodwill, mutual support, common language, accepted norms and rules, and trust. In Camrooka the network displaying strongest social capital is CamGroup. It was set up by a group who were keen to use networking as an opportunity to create cross-industry opportunities, with local businesses responsible for establishing and maintaining it. It has been able to sustain lively participation consistently at all its functions, and members are eager to share their knowledge with each other. Indeed, one small business had been unable to obtain funding for a new venture. When other members of the network heard this they provided the necessary funds and have continued assisting the business by offering planning advice. Boonaburra has similar stories emerging from its BoonGroup's BoonNights which are geared towards the SME enterprise culture.

A major benefit in extending the CoP into the virtual space is that this enables the ongoing interaction between members. CamGroup in Camrooka and BoonGroup and BoonBus in Boonaburra have web-sites containing member lists which could be extended to establish an appropriate communication medium that includes rules for engagement in the online environment.

6.5 Trust Facilitation

Strong relationship capital in the form of ties based on norms, trust and obligations is emerging in the regions and their business networks. Personal participation in both regions appears to be generating a lot of bonding capital which is emerging in the stories that are told of their successes. The strength of bonding in Camrooka's YoungCams is reflected in its rapidly growing membership (see section 5.1). In Camrooka the CamExport is a collaborative venture between CamGroup, the State Government, and a Federal Government instrumentality. There appears to be great potential for members of this network to access valuable bridging capital across weak ties. Similarly the YoungCams members are from a variety of firms throughout the region and these also provide valuable bridging links.

6.6 Organisational Infrastructure

We saw in section 3 that organisational structures need to be in place to ensure that potential VCoPs are able to be implemented in such a way that they are sustainable. We explained that the structural elements of CoPs are a sponsor, a leader, a domain of relevance, and members. We have established from the interviews that there are members and relevant domains existing in both regions, it is now necessary to assess whether the others exist or what opportunities are there for them to emerge in the regions. In the large organisational context these structures are assumed to exist and it is merely a matter of establishing the best way to use the resources of the organisation. Dube et al (2005) highlighted this with the comment that voluntary participation was not a key factor, because their underlying assumption was that the organisation can instruct its employees to be involved in VCoPs. No such luxury exists in regions. Indeed, they are characterised by a lack of formal structures and so this is a considerable hurdle to overcome in the creation of VCoPs with cross-industry regional SMEs.

6.7 Provision of ICT

Both regions have excellent ICT infrastructure in place. The reported reluctance by the majority of SMEs to use ICT appears to be a significant barrier to the incorporation of VCoPs. Most SME owners do not believe that the Internet is necessary for their businesses, do not use it in their business interactions, and are concerned about loss of control of their business. This is a greater obstacle in Boonaburra. It will be interesting to discover if these assertions are reiterated in the following stages of this empirical research, when interviews are conducted with SMEs in both regions. In both regions the *entrepreneurs* are perceived as being 'switched on' and actively using ICT for their business interactions. Consequently they are the most likely candidates for VCoP involvement. Similarly the younger SME owners in Camrooka are reported to be more 'technologically savvy' and hence a generational bias in VCoP participation may emerge, especially since many of these SMEs are national ICT companies.

7. Conclusion

This first stage of the research has revealed that there is significant social capital in both regions on which VCoPs for SMEs can be built. There is active member involvement in regional networks which are displaying CoP characteristics. In both regions there are viable alternatives to satisfy the roles of sponsors and leaders in these CoPs.

There exist significant hurdles that will have to be addressed before VCoPs can be implemented. One is the need to attract funding to ensure that the resulting VCoPs are

sustainable. They will also need to overcome the apparent reluctance of many SME owners to use the Internet and ICT generally.

These initial findings appear to indicate that the approach used by large organisations when incorporating VCoPs is applicable to cross industry regionally networked SMEs. The necessary formalization of any VCoP and its reliance on ICT usage, is likely however, to pose a major shift in orientation and practice among many of the SME owners, especially the older ones.

The findings reported in this paper reflect the views expressed by leaders in economic development in both regions. It will be interesting to establish in later stages of this empirical research whether these views accord with those of SME owners themselves, and if these apparent precursors of CoPs and VCoPs prove to be valid assumptions.

The next stage of this research involves telephone interviews with approximately 100 SME owners who participate in either the CamGroup in Camrooka or the BoonGroup in Boonaburra. Analysis of the results from these interviews will test whether the SME owners identify the same issues associated with moving regional SME CoPs online as did the regional leaders we interviewed. This stage will also identify additional issues which bear on the SMEs' participation in VCoPs.

A final stage of the project will involve in-depth interviews with approximately 50 informants from the telephone interviews to understand the dynamics of SME participation in VCoPs, and the value they derive from such participation. The analysis of all three stages will help us identify the value creation potential of VCoPs for regionally clustered cross-industry SMEs, and will inform future initiatives aimed to promote their development and enhance their success.

8. References

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