

A MATTER OF TRUST: NETWORKS AND ENTREPRENEURS

Patrice Braun & Julian Lowe
Centre for Regional Innovation & Competitiveness (CRIC)
University of Ballarat



CONTACT: Dr Patrice Braun, Research Fellow, Centre for Regional Innovation and Competitiveness, University of Ballarat, POBOX 663, Ballarat, Vic. 3353. Tel: 61-3-5327-9465, Fax: 61-3-5237-9055, Email: p.braun@ballarat.edu.au.

ABSTRACT

This paper discusses elements of inter-entrepreneurial trust in regional networks and clusters in terms of influencing business processes and economic viability in today's economy. The message that can be extracted from the literature is that competitive advantage strongly depends on interfirm collaboration and that networks with a high degree of trust lead to entrepreneurship and innovation. The paper highlights two local Victorian network studies, one in the grains industry and one in the tourism industry, and explores trust based relations in these regional networks. Contrasting sectoral results indicate that social network cohesion and trust were found to be present in the grains community but were absent in the tourism community. Borrowing from the economics and leadership literature, it is proposed that trust fosters certain types of inter-entrepreneurial networks. A description of these networks and related policy implications conclude the paper.

INTRODUCTION

It is widely accepted that technological change underpins a global economy and that geographic location and concentration is of foremost importance for regional development and competitive advantage. In Castells' (2000) notion of a 'regionalized, global economy' regional (governance) structures and networks play a significant role in the positioning of a region in the global economy (p.102). Networking and the collaborative nature of the global economy reinforce tendencies towards geographical clustering because of the advantages to be gained from proximity to other firms in specialist and related industries (Enright & Roberts, 2001).

The realities of global competition require an understanding on the local level of global markets and the complexities of interactions with multiple stakeholders along global supply chains (Youngdahl & Loomba, 2000). There is increasing evidence that the performance of existing enterprises is significantly improved by networking and clustering (Rosenfeld, 2001). Especially for micro business entrepreneurs and small and medium size enterprise (SME) owners, which make up the majority of Australian firms (ABS, 2000), local networks represent a potentially complementary response to insecurity arising from global economic developments. It is said that the drive for SME to collaborate reduces uncertainties in the global economy and is

a means of supplementing and complementing limited resources (Doloreux, 2004). Contrasting globalisation and localisation, Enright and Roberts (2001) conclude that in the new economy networks and clusters are regionally driven with local communities seeking to maintain their social, environmental and economic agendas in a global economic climate.

Network cohesion, common culture, commitment and trust among network stakeholders have been identified in the literature as key features to facilitate collaboration for mutual understanding and benefit (Håkansson & Snehota, 1995; Putnam, 2000). When these characteristics are present, collaborative and associative network forms can enhance economic competitiveness of regional business domains and enable regional and local capacity building, including entrepreneurship (Leibovitz, 2003).

NETWORKS AND CLUSTERING

A network is a collection of interconnected elements, the nature of which is determined by the relationships connecting the elements. For example relationships can be economic, informational or social while elements may be individual, firm, group based or regional (Wasserman & Faust, 1994). As a result, networks can be studied in an array of elemental and relational varieties (Biggiero, 1999) with formations varying from cluster consortia in industrial districts to loosely coupled regional service networks, online networks and emerging grass roots economic community developments.

Theoretical discussions on networks can be found as far back as 1960 (Philips, 1960), although it would take several more decades until Davidow and Malone (1992) called networked organisations 'virtual corporations', referring to the loosening of well-defined hierarchical company structures into a more flexible and shared approach towards the delivery of products and services to match customer desires. Connectivity and the Internet have added new externalities to the concept of networked firms.

Within the texture of interdependence, modifications in a network can be caused by both exogenous factors, such as a transformation in the economic and technological climate, and endogenous ones, such as network actors initiating changes in the business relationship (Håkansson & Snehota, 1995). The extent and importance of these networks usually relate to firms' and entrepreneurs' horizontal and vertical relationships, network culture and strategic complementarity. The latter will influence the scope of the network and its global positioning.

The geographic scope of clusters can vary from a single city, state or region to a network of companies across state borders or even country borders. There are various clustering forms that may ensue to optimise competitive advantage. Clustering can be formal or informal, in the public or private sector; horizontal or vertical; physical as well as virtual. In horizontal clustering companies within the same industry sector are co-located in a particular geographic area and might share an industrial or technological base, operate within a common market and use a common purchasing and/or distribution channel (Michael, 2001). Vertical networks include horizontal cluster participants as well as supply chain members such as suppliers, consumers and related services (Boekholt, 1997). Diagonal clustering refers to the concentration of complementary or symbiotic activities, whereby each firm adds value to the other. As the cluster

gains an identity it becomes an attractant to new entrants, e.g., suppliers, buyers and institutions, and creates major external economies for cluster participants. With industry clusters having become de rigueur, their boundaries and composition become more complex, which as led some cluster researchers to focus on clustering activities rather than on clusters as such (Rosenfeld, 2003). The cluster definition adopted for this paper is a geographic co-location of activities that are linked horizontally, vertically or diagonally along the value chain. The co-location facilitates knowledge transfer, either formally or through spillovers, which in turn can lead to innovation (McRae-Williams, Lowe, & Taylor, 2005).

In this paper clusters and networks are considered as different yet interdependent structures, whereby networks underpin the growth and sustainability of clustering. Clusters and networks should hence be seen as two separate constructs, each with its own distinctive characteristics (Figure 1).

Figure 1: Clusters versus Network Characteristics. Adapted from Rosenfeld (2001)

Networks	Clusters
Networks allow firms access to specialised services at lower costs	Clusters attract needed specialised services to a region
Networks have restricted membership	Clusters have open membership
Networks are based on contractual agreement	Clusters are based on social values that foster trust and encourage reciprocity
Networks make it easier for firms to make complex products	Clusters generate demand for other firms with a variety of similar and related capacities
Networks are based on cooperation	Clusters take both cooperation and competition
Networks have common business goals	Clusters have collective visions

With the exception of virtual clustering, where geographic proximity is not necessarily applicable, much of the cluster literature emphasises the importance of local networks and local/regional relationships for competitive advantage. This paper focuses on inter-entrepreneurial clustering with an emphasis on regional relationships and local network formation for competitive advantage.

Porter discusses competitive advantage as being “created and sustained through a highly localized process” (Porter, 1990, 19) and ascribes enduring competitive advantage in a global economy to local knowledge, relationships and motivation that cannot be duplicated by global partnering (Porter, 1998). Critical to Porter’s analysis of clusters are the dynamic effects created by interaction of industry and place (Porter, 2003). Clustering is partly determined by industry. McKinsey and Co (2000) suggest that intelligent capital intensifies with geographic proximity. Industry type influences knowledge dynamics through the impact on intelligent capital, specialised labour, ‘industry’ knowledge and customised product. Whilst both industry and geography are necessary elements, neither is sufficient on its own; one factor might dominate or, each factor might

operate effectively only in the presence of the other (McRae-Williams, Lowe, & Taylor, 2004). In this paper it is suggested that industry plays a key role as knowledge is embedded within industry.

Clustering is also partly determined by knowledge diffusion, which relies on two critical factors: (1) geographic proximity and (2) social structure (Enright and Roberts, 2001). Rosenfeld (1997) distinguishes clustering activities by the intensity of social infrastructure and firm interaction, firmly placing social capital and trust as the basis of collaboration, information and knowledge flows in regional clusters. Swann et al (1998) similarly positions relational capital at the core of cluster strength and as the foundation of its knowledge base. Porter actually suggests that there is a gap in the cluster literature around social structures (Porter, 1998) which may be more important for entrepreneurs than the existence of a mature cluster (Swann, Prevezer, & Stout, 1998).

REGIONAL CLUSTERING AND LOCAL NETWORKS

Inspired by the prosperity of regions such as the ‘Third Italy’, which is characterised by strong local SME clustering and economic interdependencies, policy makers in different parts of the world have been seeking to duplicate successful SME clustering and networking experiences to unlock the wealth of their own regions (Asheim, 2001). This is not to say that the Italian experience can easily be emulated. In Italy, cluster development has been dominated by the specific history and culture of northern Italy. This suggests a dominance of region rather than industry, an experience that may not be easily transferable to the rest of the world (McRae-Williams et al., 2005). The SME clustering and network literature is quite specific about local conditions having great bearing on the clustering process; that clustering is conditional on network member interaction; and that SME innovation networks are sustained through highly localised knowledge exchange and networking processes (Doloreux, 2004; Maskell & Malmberg, 1999). Thus, the message that may be extracted from the literature is that economic regeneration strongly depends on social cohesiveness and trust.

In Indonesia, for example, inter-entrepreneurial clustering remains in its infancy, despite policy support to foster small business clustering. Indonesian clustering is dominated by latent clustering characteristics, typified by stagnation, insufficient critical mass, a low degree of actor interaction and a lack of access to external networks and markets (Tambunan, 2005). Conversely, Konstadakopulos (2000) provides empirical evidence of successful cross-border SME clustering in Singapore and Malaysia. Since aforementioned SME not only collaborate but also compete in an innovative milieu, Konstadakopulos (2000) deduces that interaction is taking place based on prior existence of trust and in an atmosphere of continued trust building between stakeholders.

The Australian Government has also shown renewed interest in, and support for, industry clustering, although the philosophical debate whether clustering should be government- or industry-led varies from Australian state to state. The state of Victoria, for example, has opted for an industry-based cluster policy that focuses on attracting major national and foreign companies into the State (Enright & Roberts, 2001). In the past, Australian SME have not been known for their collaborative approach to business (Australian Bureau of Industry Economics, 1995), although a study of 2500 Australian SME on their involvement in business networks noted a significant level of interest in networking or formulating networks in the future (Dean & Holmes, 1997). The researchers identified two types of business networks – formal and informal networks – with

formal networks constituting formal arrangements between companies to consolidate resources and informal networks constituting loose arrangements facilitating information exchange. Service companies were more likely to be involved in formal and informal networking than manufacturing companies. Lack of suitable partners, lack of time and lack of financial assistance were cited as inhibiting factors for collaboration. The latter study indicated that networking was likely to become important in the business future of Australian SME.

Since the 1990s, there have been accounts of successful Australian collaboration (Insights, June 2002). Positive cluster accounts have emanated from the agribusiness sector in western Victoria (Lowe & Berrisford, 2002) – which will be expanded upon below – as well as from the tourism industry. Natural resources have long provided small tourism firms with a clustering incentive around geographic icons such as a natural health spa or a national park. Natural assets in Far North Queensland, home of The Great Barrier Reef, have for example driven the Queensland tourism industry to concentrate on certain locations, demonstrating that the tourism industry has the potential to achieve positive economic outcomes through clustering (Roberts, 2000). On the virtual tourism cluster front, a collaborative e-commerce gateway was successfully adopted as an additional destination sales channel and supply chain booking service in Daylesford, Victoria (Multimedia Victoria, 2002).

Despite the aforementioned success stories, participation in clustering and networking is clearly far from guaranteed. Most Australian SME appear to be going it alone as few use external (information) networks due to resource constraints, lack of specialist expertise and size vs. perceived impact in the market place (Venkatesan & Soutar, 2001). The limited Australian cluster literature concurs that small firms still do not have a natural propensity towards collaboration. A cluster development and cross-industry collaboration study in the state of New South Wales revealed much initial scepticism and lack of trust among industries and firms (Martinez-Fernandez, 1999).

THE BUSINESS OF NETWORKING

Typically, firms and individual entrepreneurs are embedded in a variety of formal and informal professional, social and intellectual exchange networks (Granovetter, 1973). As pointed out earlier, the extent and importance of these networks usually relate to firms' and actors' horizontal and vertical relationships, network culture and strategic complementarity. The social capital a person accumulates through networking is considered a valuable asset. In terms of social capital transaction, external network relations accentuate 'bridging' forms of social capital, whereas internal network ties focus on 'bonding' forms of social capital (Putnam, 2000).

Providing a comprehensive review of social capital literature across a variety of disciplines, Adler and Kwon (2002) list trust; reciprocity; social norms and obligations; participation in relationships; and pro-activity among the elements contained in social capital. Freeman (1991) similarly refers to factors such as trust, ethics and confidence in the cooperativeness of others for effective networking. "Trust is the expectation that arises within a community of regular, honest, and cooperative behavior, based on commonly shared norms, on the part of other members of that community" (Fukuyama, 1995, 26). Trust and reciprocity within networks and clustering domains hence very much depends on the individuals within the network. Trust inherently involves risk, especially in the marketplace where the stakes are high. It is not unusual for entrepreneurs to fear

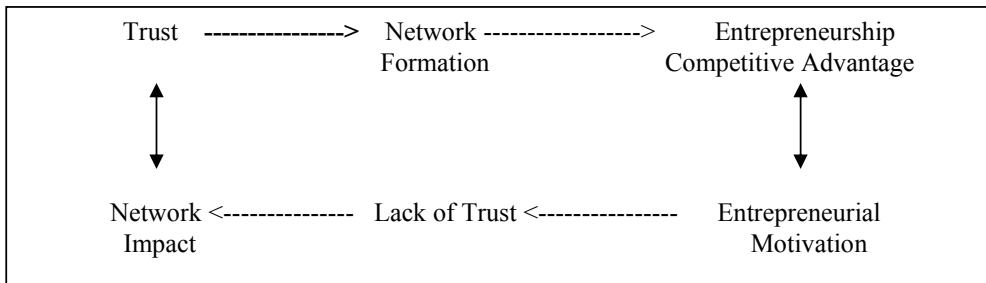
opportunistic behaviour from competitors. Opportunism can occur and trust can intentionally be violated for the benefit of one party (Granovetter, 1985) and scholars commonly stress the importance of trust and personal interaction in interfirm alliances (Gulati, 1995; Ring & Van de Ven, 1992). The trust may be historical and already exists between individuals of different firms or, conversely, may need to be fostered. Unconditional trust rarely exists in the marketplace, but when high trust exists in the marketplace it has been touted as reducing transaction costs (Williamson, 1975).

Trust can stem from a variety of factors, including common culture, language, geography, technology or history. In systems or networks, Zucker (1986) distinguishes three different sources of trust, e.g., process-based trust, characteristic-based trust, and institutional trust. Process-based trust develops from concrete experiences of social and/or economic exchange and is brought as an expectation to future transactions. Characteristics-based trust is independent of a concrete exchange experience, but is based on personal characteristics. Institutional-based trust transcends the concrete exchange experience. Based on knowledge, it is generated more diffusely in a wider network of relationships such as traditions or professions.

Trust and social capital are attributes not only of industry networks but also of entire geographic regions, which can help expedite economic development and facilitate large-scale economic activities. Hence trust is a useful lens through which to examine the levels of social capital within a wider business community, as it is generally believed to be not only a good indicator of network cohesion, but also of related exploration of economic opportunities (Fukuyama, 1995). Since trust highlights the influential role of social networks it may be described as a characteristic of regional innovation.

High levels of networking and trust in a business community create embeddedness, strong ties and dependable behaviour (Granovetter, 1985), enabling open exchange of knowledge and ideas across the cluster or network domain. Thus, it is suggested that networks that have high levels of trust foster entrepreneurship and competitive advantage. Conversely, the nature of how entrepreneurs work can impact on trust and network formation (Figure 2).

Figure 2: Network-Entrepreneur Interaction



In the next section of this paper, two Victorian studies are discussed, one in the grains industry and one in the tourism industry, which will provide some initial empirical insights into the aforementioned relational capital propositions.

TWO CASE STUDIES

Grains Cluster

This project concerned a clustering study in the grains industry conducted in a rural geographic location in the western region of Victoria (Lowe & Berisford, 2002). Agriculture is in the midst of major structural changes. Production and the prospects for generic commodity products are declining whilst component specific commodities and specific attribute raw materials for food and industrial uses are growing. Agriculture increasingly adopts a business and manufacturing philosophy. At the heart of this is the creation and capture of value through a focus on user needs and improved supply chain management. It is believed that appropriate value chain management – in value chains each actor adds value to the supply chain – improves the profitability of growers through (a) differentiation which leads to improved performance for users, higher prices and market share; and (b) productivity gains to producers which reduce costs.

The aims of the study were to identify and capture best practice in the management of the supply/value chain in the grains industry by conducting case studies of five regional Victorian organisations, including the Birchip Cropping Group, The Lentil Company, Wimmera Grain Company, Lowan Whole Foods, and the Victorian Institute of Dryland Agriculture (VIDA). Whilst these organisations, in various ways, had achieved best practice in certain aspects of the value chain, they all wrestled with generic parts of value chain management. These include issues related to trust, contracts, collaboration, communication, recognition of user needs and innovation. The five organisations were mapped along different aspects of the value chain and evaluated on three key project outcomes, namely (1) reconfiguration and linkages across the value chain; (2) specific value chain management strategies; and (3) identification of general skills and resources for implementation of value chain management.

This case study employed a combination of qualitative and quantitative methodologies focusing on the strategic issues of value chains. Secondary data was used for the initial modelling of value chains, which were then reviewed against existing value chain models such as the McKinsey model (see Grant, 1998) and the more widely used Porter (1985) model. Qualitative data was collected through focus groups, interviews, and observation using a collaborative approach, involving growers, producers and associated entrepreneurs and service providers. The analysis of the case data within and across research methods used both statistical and interpretive techniques.

In assessing the extent and infrastructure of the grains industry in the rural region, the study found that regional agricultural actors displayed a high level of trust and maintained close communication ties, displayed a high level of trust and were committed to exchanging tacit knowledge for cluster growth purposes. In identifying a high level of trust, the case showed that the success of this cluster is based on

- Visionary leadership/entrepreneurship
- Tailored information flows
- Processes and capabilities through networks in which there are high levels of trust
- A degree of inter-organisational planning between value chain participants
- Assets distributed up and down the value chain independent of ownership.

The project has had a number of benefits for network stakeholders. It enabled identification of how real value was added to the value chain; it assisted in improving linkages across the network, thereby reducing costs and inventory; it facilitated better recognition of user and customer needs; and it encouraged collaborative relationships and information sharing, leading to competitive advantage and innovation. As a result, a high level of value was created for both the performance of the cluster and for the end user of the product (Lowe & Berrisford, 2002).

Tourism Cluster

This action research (AR) study investigated the adoption and diffusion of Internet technologies in a regional Australian tourism network in the Grampians tourism region of Victoria. The Grampians are considered one of Australia's renowned tourism attractions, drawing in excess of 1.2 million visitors annually. The current boundaries of the Grampians product region cover a vast geographical area stretching hundreds of kilometres across a diversity of landscapes and nature-based tourism experiences, including a mountain range, several national parks, rivers, lakes, wetlands and desert. The region encompasses some 900 dispersed small business entrepreneurs, seven major townships, numerous villages and seven local government shires (Ritchie, 2001).

The aim of the study was two-fold: to investigate the nature of the change process when a collaborative network seeks to adopt e-commerce; and to determine how the change process differed in the face of incremental change (adding some e-commerce solutions to the network), or radical change (changing the overall business model). The purpose of the study was to gain a better understanding of the economic, strategic and social potential of regional business networks in the current techno-economic climate. The brief was to help design a portal model that would support economic marketing and transaction efficiencies, and serve as an interfirm interaction and knowledge creation platform for regional stakeholders.

An action research (AR) approach was adopted to design a portal model with rather than for network stakeholders. Apart from its practicality, action research is generally appropriate "when a research question relates to describing an unfolding series of actions over time in a given group, community or organization" (Coughlan & Coughlan, 2002, 227). An AR approach also had the potential to engage the geographically dispersed Grampians actors in a dynamic 'learning by interacting' (Lundvall & Johnson, 1994) process and prepare them for impending techno-economic domain changes. As part of the methodology, network actors were asked to meet with the researcher for a one-on-one interview; to participate in a one-day conference to formulate the design of the portal; and to take part in communications to finalise the portal model. Interaction took place over a period of eight months and involved a group of twenty network actors, who had a direct industry or governance interest in the network. Collected data was entered into a qualitative software program for key word analysis and network mapping. The study used the nature of the network links as the unit of analysis.

In this study, the spatial make-up of the Grampians product region network proved to be a core determinant in the network's processes. Many of the small and micro tourism firms in the network felt disconnected from the network; behaved in an atomistic fashion; displayed a low level of interfirm trust; and showed little interest in clustering. This resulted in latent clustering behaviour, whereby some data and information was traded, but no valuable knowledge was exchanged. Given

the social distance prevalent within the domain, the prospects for social capital building within the network proved to be poor. Not only were there weak bonding ties to the geographically dispersed network, it was steeped in socio-cultural ties where trust was parochial and built on long-term relationships. In sketching a picture of the AR intervention, it became clear that

- Network formation could not take place in an environment where trust was lacking
- Geographic dispersity impacted on network dynamics
- A lack of sustained interaction and trust present significant barriers to clustering

This case study suggests a strong relationship between entrepreneurial behaviour and network strength, both in terms of place (geographic make-up of the network) and industry (the nature of the tourism entrepreneur). Thus, both place and industry had an impact on network formation and competitive advantage (Braun, 2004). Without trust to enhance network relationships and with a lack of convergent goals, regional tourism entrepreneurs shaped their individual futures in isolation. The latter study result is in sharp contrast with the aforementioned clustering study in the grains industry conducted in a geographic location near the tourism cluster.

The project had no visible benefits for network stakeholders. A lack of knowledge sharing and collaborative strategic thinking between entrepreneurs contributed to the intellectual, social and relational capital embedded within the region remaining largely untapped, resulting in no added value or competitive advantage for regional entrepreneurs, the region as a whole or the end user.

In these two case studies relational capital resulted in either strong or weak regional ties with implicit clustering outcomes. Both cases show that relational resources can be purposely used to encourage and enhance regional clustering success and related competitive advantage.

DISCUSSION AND FUTURE DIRECTIONS

This paper has contrasted two local Victorian studies, one in the grains industry and one in the tourism industry, and explored the impact of trust based relations on the success of regional networks, cluster formation and competitive advantage in a global economic climate. Contrasting sectoral results indicate that social network cohesion based on trust, which was found to be present in the grains community and which was found to be absent in the tourism community, was a strong indicator of cluster and network strength. This raises questions about trust and network/cluster development in different industries. This also raises questions about entrepreneurs' understanding of the new economy and the possible implications of operating in isolation versus through place and industry in terms of long-term impact on a region's global visibility and strategic opportunities.

Dean and Holmes (1997) identified two types of business networks – formal and informal networks – with service companies were more likely to be involved in formal and informal networking than manufacturing companies. Our research does, however, suggest that in geographically dispersed regions service sector firms were less likely to be involved in networking than good producing firms. From our regional clustering studies we have been able to deduct that industry type has an impact on social cohesion and networking/clustering processes.

The grains industry requires a high level of professionalism and industry knowledge resulting in strong ties and networking. The tourism industry, to the contrary, has low entry barriers, allowing entrepreneurs to enter the industry with a low skill base. Tourism operators often consciously reject opportunities for economic and business growth in favour of lifestyle choice and perceptions of independence. They hence have different motivations to enter the industry, which has considerable impact on the industry as a whole (Hollick & Braun, 2005). Figure 3 contrasts the two industries and the observed levels of interaction.

Figure 3: Industry Characteristics

Tourism Industry	Grains Industry
Low entry barriers	Professional entry requirements
Low/non-specialised skill base	Highly specialised skills
Low trust → weak network ties	High level of trust → strong network ties
Low level of networking	High level of networking
Low level of clustering	High(er) level of clustering

In examining the role small business entrepreneurs play in the new economy, the authors propose that entrepreneurs operate in three different domains or three different types of networks depending on industry on the one hand and the motivations of the entrepreneur on the other. Borrowing from the trust and economics literature (e.g., Williamson, 1975; Granovetter, 1973, 1985), the leadership literature (Hersey & Blanchard, 1977; and also see Aldoory and Toth, 2004 for an overview of leadership styles) and applying Zucker’s (1986) three sources of trust to inter-entrepreneurial networks, these networks may be typified as transactional networks, situational networks and transformational networks.

Transactional networks are contractual arrangements based on the exchange of goods for dollars. Transactional networks rely on process-based trust, functioning on an expectation of ‘just’ treatment, e.g., value for money. This type of network is viable in either the old or new economy, is aimed at reducing transaction costs, but does not necessarily lead to competitive advantage. Entrepreneurs in service sector industries as well as manufacturing or goods producing industries would be suited to transactional networks.

Situational networks are founded on characteristics-based trust, providing services to fit the situation or adjust to the situation at hand. Thus situational networks provide opportunities for entrepreneurs who may not display evidence of significant process or product innovation, but who might wish to avail themselves of certain applications or market opportunities. Such opportunistic transactions may be achieved through minimal interaction and trust. This type of network perpetuates atomistic entrepreneurship and an old economy status quo. Entrepreneurs in industries such as tourism would be suited to situational networks.

Transformational networks are founded on institutional-based trust built around common values or goals, shared history, and the exchange of information and knowledge to optimise the

supply or value chain. Transformational networks are effective in times of (economic) change, when innovation is pivotal for sustained competitive advantage. This type of network is ideally suited to the new economy. Entrepreneurs in the grains or other goods oriented industries, such as the wine industry, would be well suited to transformational networks.

Figure 4: Network Characteristics

Type of Network		Characteristics		
Transactional	Based on expectation	Just treatment	Contractual	Old/new economy
Situational	Contingent on situation	Horses for courses	Opportunistic	Old economy status quo
Transformational	Based on exchange & trust	Common goals	Effective	New economy innovation

What are the implications of these three types of networks for entrepreneurs in the new economy and for networking/cluster policy makers?

In considering the critical factors of regional networking and clustering in the new economy, it is essential to recognise that different industry networks exist that will play a distinct role in the new economy. This paper has shown that some industries have better social cohesion than others and hence may cluster/network better than others. Clustering policies often overlook this important fact. If industry cohesion and industry do play differential roles, clustering policies should recognise and allow for industry differentiation.

Clusters will grow if a critical mass of firms, strategic infrastructure, inclusive networks, leadership, a pool of skills, entrepreneurship and knowledge flows are in place to create unique sets of core competencies, product and branding. However, as research has indicated, networks and value are not always naturally established and may need to be fostered. Since networks and clusters are critical for entrepreneurs in terms of survival, value creation and competitive advantage, policies directed towards start-ups, incubation and small business capacity building should always include network building and skilling aspects. While such policies cannot compel entrepreneurs to network, they can help augment relational capital, promote leadership, and benefit overall regional regeneration processes.

While manufacturing industries have a common driver to deliver an enhanced product to market, exemplified by the grains industry case study, service sector industries such as the tourism industry often rely on external attributes (product). Thus a policy differentiation between goods en service sectors may also be useful. An additional area of attention may be regulated versus unregulated industries. Although service sector industries such as tourism can add value through product bundling and collaborative marketing, creating a seamless product experience through networking and clustering is much more complex in an unregulated industry. Creating entry standards within unregulated industries will lead to a more cohesive industry as a whole and will help service sector entrepreneurs to define themselves as part of an industry, cluster, network or region.

This paper has introduced three new inter-entrepreneurial network structures, which merit further study in terms of how entrepreneurs use, benefit from and fit within inter-entrepreneurial networks and transactional network structures. Such studies would provide valuable insights into entrepreneurial motivations to join a network and help avoid potential small firm isolation in the new economy marketplace.

REFERENCES

- ABS. (2000). *Small Business in Australia* (report no. 1321.0). from <http://www.abs.gov.au/ausstats/abs>
- Adler, P. S., & Kwon, S. W. (2002). Social Capital: Prospects for a New Concept. *Academy of Management Review*, 27(1), 17-41.
- Aldoory, L., & Toth, E. (2004). Leadership and Gender in Public Relations: Perceived Effectiveness of Transformational and Transactional Leadership Styles. *Journal of Public Relations Research*, 16(2), 157-183.
- Asheim, B. (2001). Learning regions as development coalitions. Partnership as governance in European workforce states? *Concepts and Transformation*, 6(1), 73-101.
- Australian Bureau of Industry Economics. (1995). *Beyond the Firm: An Assessment of Business Linkages and Networks in Australia*. Research Reports. Retrieved 12 October, 2001, from <http://www.pc.gov.au/bie/research/rr67/index.html>
- Biggiro, L. (1999). Markets, hierarchies, networks, districts: A Cybernetic approach. *Human Systems Management*, 18(2), 71-87.
- Boekholt, P. (1997). Innovative Networks in Regional Economies: Enhancing Infrastructures for Technology Creation and Transfer. In J. Mitra & P. Formica (Eds.), *Innovation and Economic Development, University-Enterprise Partnerships in Action* (pp. 119-137). Dublin: Oak Tree Press.
- Braun, P. (2004). Regional Innovation and Tourism Networks: the nexus between ICT diffusion and change in Australia. *Information Technology & Tourism*, 6(4), 231-244.
- Brown, R. (2000). *Clusters, Innovation and Investment: Building Global Supply Chains in the New Economy*. Canberra: Australian Project Developments Pty Ltd, Canberra.
- Castells, M. (2000). *The rise of the network society*. Oxford: Blackwell.
- Coughlan, P., & Coughlan, D. (2002). Action Research. Action research for operations management. *International Journal of Operations and Production Management*, 22(2), 220-240.
- Davidow, W., & Malone, T. (1992). *The Virtual Corporation*. New York: Harper Business Press.
- Dean, J., & Holmes, S. (1997). Understanding Business Networks: Evidence from the Manufacturing and Service Sectors in Australia. *Journal of Small Business Management*, 35(1), 78-85.
- Doloreux, D. (2004). Regional Networks of Small and Medium Sized Enterprises: Evidence from the Metropolitan Area of Ottawa in Canada. *European Planning Studies*, 12(2), 173-189.
- Enright, M., & Roberts, B. (2001). Regional Clustering in Australia. *Australian Journal of Management*, 26(Special Issue), 66-84.
- Freeman, C. (1991). Networks of Innovators: A Synthesis of Research Issues. *Research Policy*, 20, 499-514.
- Fukuyama, F. (1995). *Trust*. New York.: Free Press.
- Granovetter, M. (1973). The strength of weak ties. *American Journal of Sociology*, 78, 1360-1380.

- Granovetter, M. (1985). Economic action and social structure: The problem of embeddedness. *American Journal of Social Psychology*, 62,(989-1002).
- Grant, R. M. (1998). *Contemporary Strategy Analysis* (Third ed.). Malden, MA: Blackwell Publishers.
- Gulati, R. (1995). Does familiarity breed trust? The implications of repeated ties for contractual choice in alliances. *Academy of Management Journal*, 38, 85-112.
- Håkansson, H., & Snehota, I. (1995). *Developing Relationships in Business Networks*. London: Routledge.
- Hersey, P., & Blanchard, K. H. (1977). *Management of organizational behavior: Utilizing human resources*. Englewood Cliffs, NJ: Prentice-Hall.
- Hollick, M., & Braun, P. (2005). Lifestyle entrepreneurship: the unusual nature of the tourism entrepreneur. In *Regional Frontiers of Entrepreneurship Research 2005* (Vol. 2). Hawthorn, Vic: Swinburne Press.
- Insights. (June 2002). *Birchip farmers and CSIRO researchers meet in the paddock and online*. Retrieved 7 August, 2002, from <http://www.farmscape.tag.csiro.au/newsletter/Edition9/birchip.htm>
- Konstadakopulos, D. (2000). Learning Behaviour and Cooperation of Small High Technology Firms in the Asean Region. *ASEAN Economic Bulletin*, 17(1), 48-62.
- Leibovitz, J. (2003). Institutional Barriers to Associative City-Region Governance: The Politics of Institution-Building and Economic Governance in 'Canada's Technology Triangle'. *Urban Studies*, 40(13), 2613-2642.
- Lowe, J., & Berrisford, N. (2002). *Capturing Value in the Grains Value Chain*. Ballarat: Centre for Regional Innovation and Competitiveness. University of Ballarat.
- Lundvall, B., & Johnson, B. (1994). The Learning Economy. *Journal of Industry Studies*, 1(2), 23-42.
- Martinez-Fernandez, M. (1999, 19-22 September.). *The Network Perspective in Regional Regeneration: An Organic Analysis of the Hunter Regional Network for Economic Development*. Paper presented at the 23rd Conference of the Australia and New Zealand Regional Sciences Association, Newcastle, Australia.
- Maskell, P., & Malmberg, A. (1999). Localised learning and industrial competitiveness. *Cambridge Journal of Economics*, 23(2), 167-185.
- McRae-Williams, P., Lowe, J., & Taylor, P. (2004). *The Role of Industry and Place in Clustering: An Australian Study*. Paper presented at the The Competitiveness Institute 7th Annual Global Conference. Building Innovation Clusters for Competitive Advantage, Ottawa, CA. Sept 27 – October 1.
- McRae-Williams, P., Lowe, J., & Taylor, P. (2005). *Economic Clusters, New Venture Creation and Growth*. Paper presented at the Regional Frontiers of Entrepreneurship Research, Swinburne University of Technology, February 10-11.
- Michael, E. (2001). *Tourism Growth and the Development of Micro-Market Clusters*. Paper presented at the TTRA 3rd European Conference. Creating and Managing Growth in Travel and Tourism, Börlange, Stockholm, April.
- Multimedia Victoria. (2002). *Victoria's E-commerce Advantage. E-Commerce Case Studies*. Retrieved 19 December, 2002, from [http://www.mmv.vic.gov.au/Web/MMV/MMV.nsf/ImageLookup/Ecommerce/\\$file/20%20supply%20chain2.pdf](http://www.mmv.vic.gov.au/Web/MMV/MMV.nsf/ImageLookup/Ecommerce/$file/20%20supply%20chain2.pdf)
- Philips, A. (1960). A Theory of Interfirm Organization. *Quarterly Journal of Economics*, 47, 602-613.

- Porter, M. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance*. New York: Free Press.
- Porter, M. (1990). *The Competitive Advantage of Nations*. London: Macmillan.
- Porter, M. (1998). Clusters and Competition New Agendas for Companies, Governments, and Institutions. In *On Competition* (pp. 197-287). Boston, MA: Harvard Business School.
- Porter, M. (2003). *Clusters and Regional Competitiveness: Recent Learnings*. Paper presented at the International Conference on Technology Clusters, Montreal, Canada.
- Putnam, R. (2000). *Bowling alone: the collapse and revival of American community*. New York: Simon and Schuster.
- Ring, P., & Van de Ven, A. (1992). Structuring cooperative relationships between organizations. *Strategic Management Journal*, 13(7), 483-498.
- Ritchie, M. (2001, September 10-12). *Getting it Right in the Grampians: Going Global the Grassroots Way*. Paper presented at the Sustainable Economic growth for Regional Australia, 5th national conference, Thuringowa, Qld.
- Roberts, B. (2000). *Benchmarking the Competitiveness of the Far North Queensland Regional Economy*. Brisbane: Queensland University of Technology.
- Rosenfeld, S. (2003). *Clusters of Creativity: Innovation and Growth in Montana: A Report to the Montana Governor's Office of Economic Opportunity*.
- Rosenfeld, S. A. (2001). *Backing into Clusters: Retrofitting Public Policies*.
- Rosenfeld, S.A. (1997). *Integrating Pressures: Lessons from Around the World*. Paper presented at the John F. Kennedy School Symposium, Harvard University. Regional Technology Strategies, Inc.
- Swann, P., M., Prevezer, M., & Stout, D. (Eds.). (1998). *The Dynamics of Industrial Clustering International Comparisons in Computing and Biotechnology*. London: Oxford University Press.
- Tambunan, t. (2005). Promoting Small and Medium Enterprises with a Clustering Approach: A Policy Experience from Indonesia. *Journal of Small Business Management*, 43(2), 138-154.
- Venkatesan, V., & Soutar, G. (2001). Market research in Australian SMEs: An empirical study. *Small Enterprise Research*, 9(2), 17-31.
- Wasserman, S., & Faust, K. (1994). *Social Network Analysis: Methods and Applications*. Cambridge, New York: Cambridge University Press.
- Williamson, O. (1993). Calculativeness, Trust, and Economic Organization" × *Journal of Law and Economics*, 36, 453-486.
- Youngdahl, W., & Loomba, A. (2000). Service-driven global supply chains. *International Journal of Service Industry Management*, 11(4), 329-347.
- Zucker, L.G. (1986). Production of Trust: Institutional Sources of Economic Structure. In Staw and Cummings (eds.) *Research in Organizational Behavior*, 8, 53-111.