

Women SME owner/managers, opportunity recognition and government-sponsored business networks

Dr Rod Farr-Wharton
Rfarr@usc.edu.au
University of the Sunshine Coast,
Maroochydore, Queensland. 4558, Australia
ph 61-7 -0408458570

Dr. Yvonne Brunetto
y.brunetto@griffith.edu.au
School of Management,
Griffith University,
Logan campus, University Drive,
Meadowbrook 4131. Qld, Australia
ph 61 -7 - 33821341 Fax 61-7-33821408
Track: Entrepreneurship and Innovation
Word count: 6768

Women SME owner/managers, opportunity recognition and government-sponsored business networks

This paper examined the benefits of belonging to business networks for women SME owners/managers and the effectiveness of government business development officers in supporting women SME owner/managers that belong to business networks. The findings suggest that approximately 20% of the reasons why women SME owner/managers belong to business networks can be explained by the findings from past research identifying the important functions of opportunity recognition and collective learning. The findings contribute to the literature about the “intentions” part of Forbes (1999) cognitive model of opportunity recognition for women SME owner/managers.

However, this suggests that almost 80% as to why women SME owner/managers belong to business networks cannot be explained using the stated literature. The finding highlights the lack of understanding about the nature and dynamics of being a SME within a business network particularly those owned or managed by women. It also may explain the difference between a “social network” or “industry-formed business network or cluster” on the one hand and a “politically constructed business network” comprising members that belong to an established social network and those invited to attend by government/clustering agents. More qualitative research is required to better understand the relationship between women SMEs owner/managers and opportunity recognition within business networks.

KEY WORDS: SMEs, BUSINESS OPPORTUNITIES and NETWORKS, OPPORTUNITY RECOGNITION, GOVERNMENT BUSINESS DEVELOPMENT OFFICERS

Women SME owner/managers, opportunity recognition and government-sponsored business networks

Not all SME owner/managers act entrepreneurially. Entrepreneurs are defined as those who “seek out and identify potentially profitable economic opportunities [and as such are] agents of growth” (OECD, 1998, p11). In particular, Shane and Venkataraman (2000 p218) argue that entrepreneurship involves the study of “sources of opportunities, the processes of discovery ...and the set of individuals, who discover ... them” where ‘opportunities’ are defined as future situations that are considered desirable and “opportunity recognition” is defined as the process of discovering these opportunities (Keh, Foo and Lim, 2002). There is continued debate as to whether opportunities are discovered or created (Kaish and Gillard 1991) with Krueger (1998) arguing that opportunities are created rather than discovered and are therefore dependent on the firm owner/manager’s entrepreneurial behaviour. Hence, even if two SME owner/managers are given the same information about a potential business opportunity, it is only an opportunity to the one who recognises the potential value that the information might accrue (in terms of future profits etc) (Shane and Venkataraman, 2000).

The implication of this information is that Australia has few entrepreneurs, but numerous SMEs. Whilst the number of SMEs has at least trebled and their contribution to economic output has doubled since the 1980s (Barnes and Kennard 2002) and they contribute 35% of Australia’s Gross Domestic Product, represent 97% of private sector businesses and employ nearly 49% of all private sector employees (ABS, 2001); Grome (2003) argues that only about 5-10% (approximately about 100,000 SMEs of the 1.2 million SMEs in total) act entrepreneurially. This means that only 100,000 SMEs are actively engaged in strategies that promote growth, pursue export markets and grow employment within the Australian business context.

Previous research has identified a number of factors that affect opportunity recognition. These include entrepreneur’s level of alertness (defined as the ability to identify and process information about potential opportunities), prior knowledge, access to relevant information, their social networks and, personality traits (particularly in relation to optimism, self-efficacy and creativity) (Ardichvili, Cardozo and Ray, 2003, p106; Shane 2003; Porter, 1998, 1999, 2000; Enright and Roberts, 2001; Hill and Brennan, 2000; Singh, Hills, Hybels and Lumpkin, 1999).

In relation to networking, the individual SME owner/manager can benefit via accelerated innovation diffusion, increased productivity, profitability, sales, market knowledge and exports (Singh, 2000; Porter 2000, 2001; ABIE Research Report 67, 1995). Moreover, networking can lead to a business climate that promotes innovative spin-offs for other firms (Drury 1998). For the region, networking activity can enhance its economic development, especially where institutional support is provided (DETR, 2000 p25). Therefore governments have increasingly become involved in promoting networking and clustering activities in an attempt to enhance the competitiveness of firms, regions and nations (DISR, 1999).

However, there is a difference between social networks, business networks, and clusters. Firstly, social networks are defined as linkages between defined groups of people based on their relationships. Social network theory assumes that the relationships between the connected people can be examined as a system because

there are specific characteristics evident across systems of people at different levels (interpersonal, group and/or organisational) (Scott, 2003). On the other hand, business networks are a composite structure of enterprise-to-enterprise linkages that emerge, persist and decay as a result of actions undertaken by local firm owner/manager and/or government. Business networks are similar to industry clusters in that they involve firms forming linkages, however, industry clusters involve firms that are located in a similar region and are engaged in similar activities (Mitra 2000).

Some literature assumes that business networks and clusters form based on established social networks, however whilst some firms engage in networking activities naturally, in many countries (such as Australia, New Zealand, Sweden, Norway) governments have been instrumental in developing strategies to facilitate collaboration amongst firms (Porter 2000, Brunetto and Farr-Wharton 2003, in print). Hence, governments have increasingly taken on the role of being a strategic agent involved in supporting business network formation so as to capture the benefits for regions in particular and the economy more generally (Robson and Bennett 1999; OECD 1997). Therefore, increasingly business networks may comprise firm owner/managers that know each other as well as those that government officials/networking agents have invited to participate (Brunetto and Farr-Wharton, 2003, in print). As a result networked members may not have established effective social interactions amongst members congenial for discovering new opportunities as identified by Ardichvili, Cardozo and Ray, (2003), Granovetter, (1985), Hills, (1995), Hills, Lumpkin and Singh, (1997) to name a few.

However, it can not be assumed that the business experiences of women entrepreneurs are similar to those of males with the evidence suggesting that females experience greater difficulties than males at start-up and later stages of business development (Eagly and Karau, 1999; Brunetto and Farr-Wharton, 2005). Previous research suggests that one factor that may inhibit opportunity recognition for females is their lack of lack of knowledge and experience, lack of venture capital, lack of entrepreneurial culture, networks and role models, and fear of failure (Longstreth, Stafford and Mauldin, 1987; Kolvereid et al., 1993; Carter, 2000; Fielden and Dawe, 2004). Hence, if women were given access to relevant business knowledge and networks, then, this may assist them to discover more business opportunities. Whilst governments within some OECD countries have taken a stronger support role in assisting business growth (via business policies and programs aimed at promoting networking activities (Benneworth and Charles 2001) and/or microeconomic reform (O'Connor, Stimson and Daly 2001); it is unclear if government activities in promoting networks assist women SME owner/managers. Hence, the aim of this paper is to examine how women use business networks and what role the government plays at a practical level in supporting women to grow their business. The primary research question (PRQ) is:

PRQ1: What are the benefits of belonging to business networks for women SME owners/managers?

PRQ2: How effective are government business development officers in supporting women SME owner/managers that belong to business networks?

One reason for examining how women use networks is because the benefits of networking are only possible if the women SME owner/managers engage in entrepreneurial activities such as scanning for, recognising and exploiting business opportunities. Another reason for examining female SME behaviour in networks is

whilst there has been a lot of research examining the critical success factors of social networks comprising large firms (Saxton 1997), there has been far less research undertaken examining business networks comprising (SMEs (Human and Provan, 1997; Sherer, 2003) and SMEs represent the dominant type of firm within the business environment of some countries (such as Australia, NZ, Sweden, Norway). Moreover, whilst female SME owner/managers comprise 33% of all SMEs within Australia (ABS, 2003), information about how women entrepreneurs behave within networks is limited (Stevenson, 1990).

BACKGROUND

Models of entrepreneurship process

Entrepreneurial activity begins with discovering and identifying potential business opportunities and different authors explain the business opportunity process slightly differently. For example, Moorman and Miner (1998) describe a three-step process involving discovery, knowledge diffusion and appropriate action. Timmons (1999) examines opportunity recognition as an economic process involving the entrepreneur's ability to balance the three forces involved (which are the firm itself, the resources required and the potential business opportunity). The balancing act is affected by the risks involved, the uncertainties and resource scarcity and it is only when all three forces converge that successful entrepreneurship occurs (Timmons, 1999). Forbes (1999) on the other hand, examined opportunity recognition from a cognitive perspective and identified three stages that entrepreneurs undergo when identifying a potential business opportunity before taking any action (his fourth stage). The three stages are "intention" (based on their perceived desirability and feasibility), "scanning" (based on their knowledge source, depth and breadth) and "interpretation" (based on their perception of opportunities and threats and how they make decisions). Similarly, Ardichvilli et al, (2003) delineate three distinct processes that incorporate previous approaches to opportunity recognition. They argue that the processes involved in recognising and evaluating an opportunity are: "Identifying potential business ideas" (opportunity identification), "Recognising the idea as an opportunity" (opportunity recognition) and "Developing the opportunity" (opportunity evaluation). This paper focuses on the first stage of entrepreneurship – identifying their "intentions" (Forbes, 1999) so as to identify what the benefits of networks are for women SME owner/managers and the role of government in the process.

Women Entrepreneurs

There is still debate as to whether women entrepreneurs' behaviour in business is similar to that of men (Catley and Hamilton, 1998; Orser and Hogarth-Scott, 2002; Longstreth, Stafford and Mauldin, 1987; Pellegrino and, 1982; Johannison and Monsted, 1997; Bulter, Brown and Chamornmarn, 2003). Women begin business for different reasons to men – a combination of push (such as glass-ceiling issues) and pull (family, life goals issues) factors (Eagly and Karau, 2002). Moreover, Stevenson (1990) argues that most of the research about entrepreneurship has sampled males predominantly and therefore, it is unclear whether women behave similarly in business – particularly in terms of opportunity recognition.

It maybe that opportunity recognition is affected by gender because men and women tend to have different life experiences, knowledge and understanding (Brush, Carter, Gatewood, Greene and Hart, 2001). Recent research suggests that such differences

may impact on entrepreneur's access to, and understanding of, different levels and types of information, and in turn, this may affect their behaviour in recognising opportunity (Shane, 2003; O'Connor and Rice, 2001; Venkataraman, 1997). The difference in evaluation according to Mitchell, Busenitz, Lant and McDougall, (2002) results from a difference in entrepreneurial cognition that, in turn, is based on differences in judgment. There is a gap in the literature about how women use business networks.

Networking activity

Previous research suggests that for SME owner/managers to benefit from network activities, they must be prepared to share information and act more collaboratively (Baptista, 2000; Kosa and Lewin, (2000); Nootboom and Gilsing, (2004); Porter, 1999, 2000). When the participants know one another (as is the case in social network research), then past research suggests that the 50% of the firm owner/managers did identify more opportunities than those firm owner/managers who searched by themselves (Singh and Hybels, 1999). Similarly, a study conducted by O'Connor and Rice (2001) suggests that informal networks were found to be useful in influencing opportunity recognition both internally and externally to the organisation. In addition, Nelson (1987) found that women entrepreneurs rated firstly "networks" and secondly "advice from significant other" as the two most important sources of information based on usefulness, rate of usage and cost at the start-up stages of a business. However, it is unclear whether business networks (comprising both established social networks and members invited to attend by government officials) produce the same outcomes for SME owner/managers.

Some researchers have attempted to differentiate business networks based on the degree to which opportunity discovery, recognition and exploitation occurs. In particular, a number of authors have identified the difference between "hard" or "exploitative" and "soft" or "explorative" networks (Sherer, 2003; Bosworth, 1995; Kosa and Lewin, 2000; Nootboom and Gilsing, 2004). Exploitative/hard business networks are defined as those comprising firms that actively engage in entrepreneurial activities of identifying and exploiting new business opportunities and as a result, engage in joint production and marketing ventures, and share technologies, knowledge and skills. It is the exploitative/hard business networks that provide the required environment to promote information/ideas/innovation development and diffusion and in turn maximize the economic benefits of innovative behaviour (increased profits, market share, employment etc). On the other hand, soft/explorative networks comprise entrepreneurs engaged in a lower level of collaboration -they still identify new opportunities and exploit them, however, far less resources/risk is involved (Sherer, 2003). For example, soft/explorative business networks may share knowledge and/or training facilitates and/or may be involved in some joint cost-reduction strategies (such as bulk buying of utilities and/or resources), however, the outlays and risk are minimal compared within the activities within exploitative/hard business networks. The hypothesis used to test this idea is:

1. Ho: Women SMEs owner/managers use networks to identify business opportunities.

Exploitative/hard business networks also appear to resemble industry clusters in terms of the types of activities undertaken. These types of networks promote faster innovation diffusion when the majority of the firms are engaged in similar activities and are located in geographically close proximity (Baptista 2000; Deroian 2002).

Bapista (2000:516) argues that that is because the “density of sources of knowledge about such technologies is higher”. The benefits of firms forming meaningful linkages amongst themselves are that new opportunities are more likely to emerge under these conditions and it is easier for researchers, industry and trade associations, government and private sector infrastructure (such as universities) and new firms to access (Keeble and Wilkinson, 1999; OECD, 1997). This is because firm owner/managers that belong to business networks can more easily engage in collective learning.

Collective learning within a business networks is defined as the process of accumulating knowledge from different individuals so as to address common and shared problems (Park, 2001; Keeble and Wilson, 1999; Singh, Hills, Hybels and Lumpkin, 1999; O’Connor and Rice, 2001; Singh and Hybels, 1999). Opportunity recognition by an entrepreneur may result from being in an industry cluster or a business network. However, the potential benefits are only possible if SME owner/managers engage in entrepreneurial activities such as scanning for and recognising and exploiting business opportunities.

The underlying assumption emerging from a review of the US literature (such as Bosworth, 1995; Olk and Elvira, 2001; Porter, 1998, 1999; Sherer, 2003) is that firms join and actively participate in networks and/or clusters because they recognize them as a source of potential business opportunities. However, the preliminary findings of the entrepreneurial outcomes of Australian networked firms suggest that opportunities from networking activities have not been realised, that is, networked firms have not necessarily increased productivity, profitability, sales, market knowledge and exports and there has been minimal evidence of accelerating innovation diffusion (ABIE Research Report 67, 1995; Brunetto and Farr-Wharton, 2003, 2004, 2005, in print). In addition, Dean, et al. (1997) examined 912 Australian firm owner/managers and found that 73 percent of them did not perceive the benefit of networking. However, it is unclear what female SME owner/managers use business networks for. The hypothesis used to test these ideas is:

2. Ho: Women SMEs owner/managers use networks to learn both individually and collectively.

The role of Government

The Australian government is similar to other governments in that it has developed a range of business programs aimed at supporting business growth. The Australian government comprises three levels of government – federal, state and local government, each with specific policies aimed at supporting business growth. However, there has traditionally been a low take-up of government business programs and even less take-up of programs promoting networking (Enright and Roberts 2001). Previous research suggests that the reasons given include a lack of specific objectives attached to each policy/program, under-funding and poorly directed to specific target groups and in turn, poorly communicated to the client group and poor - coordination and communication between government departments (Department of Transport and Regional Services (DOTARS) 2000; DOTARS 2002; Fulop 2000; Giesecke and Madden 1997, Beer, Bolam and Maude 1994; Brunetto and Farr-Wharton, 2003). However, it is unclear whether more recent programs have overcome some of the earlier problems. A study by Brunetto and Far-Wharton (2005) of the factors affecting the ability of government business development officers positions at the state and local level suggest that the lack of resources and the “silo” mentality of some

government departments responsible for administering some business programs does hinder their ability to effectively support business development of their clients.

On the other hand, some Australian state governments have been more successful in providing training courses for firms. Moreover, some governments even have particular programs aimed specifically for women firm owner/managers. For example, the Queensland Department of State Development, Trade and Innovation runs “Smart Women Workshop Series” which are “tailored to the needs” and “specifically designed for Queensland business women” (QDSTI, 2006). It also promotes a business women’s network in some areas of the state. The scope of this paper does not allow scrutiny of government business policies generally. Instead, the paper limits its investigation to examining whether women SME owner/managers were satisfied with the support given by business development officers within business networks. The hypothesis used to test this idea is:

3. *Ho: Women SMEs owner/managers are satisfied with the support given by business development officers within business networks.*

Methodology

Introduction

This research uses a one-shot experimental design to measure the impact of the quality of communication relationship between employees and supervisors on organisational outcomes within two local government organisations. Once the data was collected and analysed, the results were compared to past research.

Quantitative Methods

Sampling

Female SME owners engage in entrepreneurial behaviour to some degree everywhere – hence, the study could have been undertaken anywhere. For convenience, this study is focused in one state of Australia. The state was chosen because it exhibits high levels of growth of new small business start-ups (DSDI 2003). Purposeful sampling underpins the remaining sampling decisions (Yin 1994). The first step involved approaching the relevant state government department so as to gain access to the list of female SMEs involved in manufacturing and processing within the state. These types of firms were targeted because past studies suggest that manufacturing/processing firms have the potential to gain the most benefits in terms of innovative spin-offs from collaborating (Porter, 1999, 2000). In addition, snowballing was used to increase the response rate.

Questionnaires were then emailed to a random sample of 500 female SME owner/managers and 119 were returned via email (a response rate of 21.1%). However, only 90 females stated that they belonged to a business network and 29 females stated that did not belong to a network. The analysis of network behaviour involves only those female SMEs belonging to networks.

Instruments

A questionnaire was developed to reflect a review of relevant literature. The questionnaire included three parts: a short demographic section; statements that asked respondents to indicate their degree of agreement (1=Strongly Agree through to 6=Strongly Disagree); and open-ended questions seeking a qualitative response (See Table Five for survey questions used to test hypotheses).

Results

Demographics

Table One and Two detail the demographics of the SME sample. Table One describes the types of business undertaken by the women in the sample. Table Two describes the type of business cross-tabulated against turnover. In terms of the length of time in a business, the majority had been in business for greater than ten years and had a turnover of between \$100,000 and \$500,000.

Results from Analysis

To test the first and second hypotheses that stated that “*Women SMEs owner/managers use networks to identify business opportunities*” and “*Women SMEs owner/managers use networks to learn both individually and collectively*” a regression analysis was undertaken. The dependent variable was “Real benefits of being in this network for my business”. The independent variables were “Supply Chain Opportunities”, “Market Opportunities”, and “Learning Opportunities”. The findings suggest a significant relationship ($F=3.530$, $p<.05$, $R^2= 21.4\%$) (See Table Three). The significant independent variable was “learning about new market opportunities” ($b=.364$ $p<.05$). The findings suggest that the first hypothesis should be accepted. The second hypothesis should be partially accepted because whilst “Learning Opportunities” in combination with other factors does contribute to 21.4% of women SME owner/managers perceived benefits of being in a business network; it is not a significant factor. A reliability test was undertaken and the alpha score was .7383 suggesting that there is still work to be done to improve the reliability of the questionnaire.

To test the third hypothesis (*3.Ho: Women SMEs owner/managers are satisfied with the support given by business development officers within business networks*), a regression analysis was undertaken. The dependent variable was “Overall, I am satisfied with the assistance from government business development officers”. The independent variables were “Encouraged me to join network”, “Encouraged me to actively participate” and “Supported networks to become effective”. The findings suggest a significant relationship ($F=6.421$, $p<.000$, $R^2= 34.2\%$) (See Table Four). The significant independent variable was “Encouraged me to join network,” ($b=.348$ $p<.000$). The findings suggest that the third hypothesis should be accepted.

Discussion

This paper examined the benefits of belonging to business networks for women SME owners/managers and the effectiveness of government business development officers in supporting women SME owner/managers that belong to business networks. Three hypotheses were used to guide the data collection process. The findings from this study suggest that approximately 20% of the reasons why women SME owner/managers belong to business networks can be explained by the findings from past research. In particular, past research suggests that networks are used to identify business opportunities (Sherer, 2003; Bosworth, 1995; Kosa and Lewin, 2000; Nooteboom and Gilsing, 2004) (particularly those related to market opportunities rather than supply chain opportunities) and learning opportunities (Park, 2001; Keeble and Wilson, 1999; Singh, Hills, Hybels and Lumpkin, 1999; O’Connor and Rice, 2001; Singh and Hybels, 1999).

However, this suggests that almost 80% as to why women SME owner/managers belong to business networks cannot be explained using the stated

literature. There may be a number of ways of explaining the finding. Firstly, this finding may be explained by the nature and dynamics of being a small firm irrespective of the gender issue. Saxton (1997), Human and Provan (1997) and Sherer (2003) had identified that previous research about the benefits of, and critical factors affecting networking had predominantly focused on large firms. The findings from this initial study suggest that SMEs may not behave similarly to large firms in relation to networking. Far more research is required to examine the dynamics of networking involving firms of different sizes within different countries.

Another explanation of the findings may be found in the difference between a “social network” or “industry-formed business network or cluster” on the one hand and a “politically constructed business network” comprising members that belong to an established social network and those invited to attend by government/clustering agents. Whilst Ardichvili, Cardozo and Ray, (2003), Granovetter, (1985), Hills, (1995), Hills, Lumpkin and Singh, (1997) had previously identified increased opportunity recognition within established naturally-forming social networks, there has been no similar research comparing opportunity recognition behaviour within politically constructed business network. However, an increasing number of governments (Australia, New Zealand, Sweden, Norway to name a few) have developed policies and allocated large budgets aimed at fostering networking assuming the same dynamics operate. There is a need to undertake research comparing the entrepreneurial outcomes of naturally forming business networks with those emerging from politically constructed business network.

Moreover, more research is required to differentiate what type of firms (based on size, growth rates etc) under which conditions (naturally forming versus politically constructed) benefit from networking and clustering activities. It may be that governments that want to foster increased networking activities for firms within regions should firstly examine the entrepreneurial intentions and activities of those firms. This may be particularly important for women SME owner/managers because previous research has suggested that gender affects opportunity recognition because of the differences in life experiences, knowledge and understanding (Brush, Carter, Gatewood, Greene and Hart, 2001) in turn affecting entrepreneur’s access to, and understanding of, different levels and types of information (Shane, 2003; O’Connor and Rice, 2001; Venkataraman, 1997). More in-depth qualitative research is required to examine reasons for different entrepreneurial intentions and activities as a means of better understanding difference in entrepreneurial cognition as argued by Mitchell, Busenitz, Lant and McDougall (2002).

In relation to the relative negative means about the role of government business development officers, an explanation may lie in the degree to which female SME owner/managers are exposed to their work. Previous research about the role of government business development officers (Brunetto and Farr-Wharton, 2005) suggests that the lack of resources means that whilst females may comprise a third of Australian SMEs, limited government resources for supporting business growth leads to limited focus on supporting women SME owner/managers in particular. However, another explanation is that these findings support the past findings that Australian business programs lack specific objectives, and are under-funding and poorly directed to specific target groups and in turn, are poorly communicated to the client group and suffer poor - coordination and communication between government departments

(Department of Transport and Regional Services (DOTARS) 2000; DOTARS 2002; Fulop 2000; Giesecke and Madden 1997, Beer, Bolam and Maude 1994; Brunetto and Farr-Wharton, 2003). These findings suggest that if women SME owner/managers are to be encouraged the government needs to address these preliminary findings.

However, the findings from this study have a number of limitations. Firstly, the sampling process could have caused bias in the data collection and therefore the generalisability of the findings may be compromised. This is because examining the issue in a state with the most start-ups suggests that there is more entrepreneurial activity occurring in the state. As such, more studies are required to ensure stronger generalisability of these findings. In addition, there may be bias in the type of SME owner likely to have responded to the survey. It seems likely that the SME owners that would respond to this questionnaire are apt to be more entrepreneurial in their behaviour of recognising new opportunities, thereby biasing the sample used - hence the need for further studies to replicate these findings.

Another limitation of this study is common methods bias in relation to the questionnaire that was used as a basis for collecting one lot of data. However, Spector (1987, 1994:386) argues that as long as “there is reasonable evidence that supports our inference about it and our interpretation of what it represents” self-report methodology is useful in providing trends that in turn provide useful insights into employees’ feelings and perceptions. On the other hand, Spector (1994) argues that the research question must use appropriate methodology; otherwise generalisations become too speculative.

Conclusion

This paper examined the benefits of belonging to business networks for women SME owners/managers and the effectiveness of government business development officers in supporting women SME owner/managers that belong to business networks. The findings from this paper suggest that women SME owner/managers do behave like entrepreneurs within networks to some extent as detailed by Sherer (2003), Bosworth (1995), Kosa and Lewin (2000) and Nooteboom and Gilsing (2004). Their research differentiated between hard/exploitative and soft/explorative networks based on the type of activities undertaken – particularly in relation to the degree to which opportunity discovery, recognition and exploitation occurs. Previous research suggested that the potential benefits are only possible if SME owner/managers engage in entrepreneurial activities such as scanning for, recognising and exploiting business opportunities. This paper suggests that at least 20% of the reason women SME owner/managers belong to business networks can be explained by their intention to scan for business opportunities.

The findings contribute to the literature about the “intentions” part of Forbes (1999) cognitive model of opportunity recognition for women SME owner/managers. This stage forms the first part of women recognizing opportunities. The findings suggest women do use business networks to “scan” for opportunities (Forbes 1999). The next step is to research whether women **find** those business opportunities by being in business networks (either government or industry sponsored) versus social networks.

REFERENCES

ABIE (1995) Beyond the Firm: An assessment of business linkages and networks in Australia, Research Report 67, The Bureau of Industry Economics, AGPS

Ardichvili, A., Cardozo, R. and Ray, S. (2003) A theory of entrepreneurial opportunity identification and development. *Journal of Business Venturing* 18(1): 105-123.

Australian Bureau of Statistics (2003) *Australia now – a statistical profile*. Industry overview. Output and employment by industry. Australia Bureau of Statistics, Canberra

Australian Bureau of Statistics (2001) *Australia now – a statistical profile*. Industry overview. Output and employment by industry. Australia Bureau of Statistics, Canberra

Bapista, R (2000) Do Innovations Diffuse Faster within Geographic Clusters, *International Journal of Industrial Organization* 18 p515-535

Barnes, P., and Kennard., S (2002) *Skill and Australia's Productivity Surge*, Staff research Paper, Productivity Commission, Canberra

Beer, A, Bolam, A and Maude, A (1994) *Beyond the Capitals: Urban Growth in Regional Australia*, AGPS, Canberra.

Benneworth, P and Charles, D.R. (2001) 'Clustering and complexity - regional ICT clusters in the UK', in Bergman, E. M., den Hertog, P., Charles, D. R. and Remoe S. (eds.) *Innovative Clusters*, OECD, Paris.

Bickerdyke, I., Ralph Lattimore, Alan Madge, (2000) *Business Failure and Change: An Australian Perspective*, Staff Research Paper, Productivity Commission, Dec AGPS

Brunetto, Y and R. Farr-Wharton (2003) Factors affecting Australian SMEs decision to access government policies and programs promoting collaboration *American Academy of Management Proceedings, Seattle August*.

Brunetto, Y and R. Farr-Wharton (2005) The impact of Gender on opportunity recognition of entrepreneurs: The implications for the productivity of non-social networks *American Academy of Management Proceedings, Hawaii August*.

Brunetto, Y and R. Farr-Wharton (2004) The Impact of Business Networking on the Transfer of Knowledge: Implications for the Diffusion of Innovations *University of the Sunshine Coast Faculty of Business Working Paper Series* 7(1) pp3-25

Brunetto, Y and R. Farr-Wharton *The moderating role of trust in entrepreneurs' decision-making about collaboration Accepted with revisions in the Journal of Small Business Management* DATE OF ACCEPTANCE 5/2/05 (a)

Brunetto, Y Campbell, J., Farr-Wharton.R., and Greenhill, A., (2002) *Australasian Journal of Regional Studies*, Volume 8, No. 3.

Buttner, H and Moore, D 1997 Women's organisational exodus to entrepreneurship: Self reported motivations and correlates with success *Journal of Small Business Management* 35,1 34-47

Catley, S and Hamilton, R 1998 Small Business Development and Sex of Owner. *The Journal of Management Development* 17 (1) 75-81

Dean, J, Holmes, S and Smith, S (1997) Understanding business networks: Evidence from the manufacturing and service sectors in Australia *Journal of Small Business Management* 35 (1) pp78-85

Department of Transport and Regional Services (DOTARS) 2000 *Interim Report of the Regional Australia Steering Committee Summit* AGPS, Canberra

Department of Transport and Regional Services (DOTARS) 2002 *Regional Business Development Literature Review* SGS Economic and Planning, Melb

Deroian, F. (2002). Formation of social networks and diffusion of innovations, *Research Policy*, 31, 5, 835-846.

DETR, (Department of the Environment, Transport and the Regions), *Planning for Clusters A Research Report*. Her Majesty's Stationery Office, London. 2000.

DISR. (Department of Industrial Science Research. (1999). *Shaping Australia's Future Innovation – A Framework Paper*. AGPS, Canberra.

Drury, D (1998) Innovation Diffusion and Implementation *International Journal of Innovation Management* .3 (2) pp133-157.

Eagly, A and Karau, S (2002) Role congruity theory of prejudice towards female leaders, *Psychological Review* 109, 3 573-598

Enright, M and Roberts, B (2001) Regional Clustering In Australia *Australasian Journal of Management* 26 pp65-86

- Forbes, D (1999) Cognitive Approaches to new Venture Creation *International Journal of Management Reviews* 1(4) pp415-439
- Fulop, L (2000) A study of government-funded small business networks in Australia *Journal of Small Business Management* 38 (4) pp87-92
- Giesecke, A and Maddern, J 1997 Regional Government Economic Policy: Assessing the Instruments *Australasian Journal of Regional Studies* Vol 3 pp3-18
- Granovetter, M.S. (1985) Economic action and social structure: The problem of embeddedness. *American Journal of Sociology* 91(3): 481-510.
- Grome, A., (2003) The true engine room in *Business Review Weekly* October 23rd-29th p18
- Hill, E., and Brennan, J. (2000). A methodology for identifying the drivers of industrial clusters: the foundation of regional competitive advantage *Economic Development Quarterly*, 14, 1, 65-96
- Hills, G.E. (1995) Opportunity recognition by successful entrepreneurs: a pilot study. *Frontiers of Entrepreneurship Research*, Babson College, Wellesley, MA. 103–121
- Hills, G.E., Lumpkin, G.T., and Singh, R. (1997). Opportunity recognition: Perceptions and behaviours of entrepreneurs. *Frontiers of Entrepreneurship Research*, 17, 168–182.
- Honig, B., (2001) Learning strategies and resources for entrepreneurs and entrepreneurs *Entrepreneurship: Theory and Practice*, Fall, Vol 26 (1) p21-36
- Human, S and Provan, K (1997) An Emergent Theory of Structure and Outcomes in Small-Firm Strategic Manufacturing Networks *Academy of Management Journal* 40 (2) pp369-403
- Johannison, B and Monsted, M 1997 Contextualising entrepreneurial networking *International studies of Management and Organisation* 27, 3 109-138
- Kaish, S., and Gillard, B. (1991). Characteristics of opportunities search for entrepreneurs versus executives: Sources, interests, general alertness. *Journal of Business Venturing*, 6, 45-61.
- Keeble, D and Wilkinson, F (1999) Collective Learning and knowledge development in the evolution of regional clusters of high technology SMEs in Europe *Regional Studies* Vol 33 (4) pp305-324.
- Keh, H., Foo, M., and Lim, B. (2002). Opportunity evaluation under risky conditions: The cognitive process of entrepreneurs. *Entrepreneurship Theory and Practice*, Unknown.
- Kirzner, I. (1997). Entrepreneurial discovery and the competitive market process: An Austrian approach. *Journal of Economic Literature*, 35, 1, 60-86.
- Koza, M and Lewin, A (1998) The co-evolution of strategic alliances. *Organization Science* 9 pp255-264.
- Krueger, N. (1998). Encouraging the identification of environmental opportunities. *Journal of Organisational Change Management*, 11, 2, 174-182.
- Lennon, S (2001) Local Government Business Assistance: Ideas for Action, *ABARE Outlook* 2001 Conference February 27th March 1
- Longstreth, M, Stafford, k and Mauldin, T 1987 Self-employed women and their families: Time use and socio-economic characteristics. *Journal of Small Business Management* 25, 3 30-38
- Ltunggren, E and Kolvereid, L 1996 New Business formation: Does sex make a difference? *Women in Management* 11, 4, 3-14
- Macpherson, A, Jones, O., Zhang, M., and Wilson, A (2003) Re-conceptualising learning spaces: Developing capabilities in a high-tech small firm *Journal of Work Learning*, 15 (6) pp259-270
- Marceau, J 1999 "The Disappearing trick: Clusters in the Australian Economy" in OECD *Boosting Innovation: The Cluster Approach* OECD Paris Ch 6
- Mitra, J (2000) Making connections: innovation and collective learning *Education and Training* Vol 42 (4/5) pp228-229
- Moorman, C., and Miner, A., (1998) Organizational improvisation and organizational memory. *Academy of Management Review* Vol 23 (4) pp69-78
- Nelson, G 1987 Information needs of female entrepreneurs. *Journal of Small Business Management* 25,3 22-29

Nooteboom, B., and Gilsing, V. A. (2004, 19-Jan-2004). Density and strength of ties in innovation networks: A competence and governance view. ERIM Report Series Research in Management Retrieved July 30, 2004, from <https://ep.eur.nl/handle/1765/1124>.

O'Connor, G., and Rice, M. (2001). Opportunity recognition and breakthrough innovation in large established firms. *California Management Review*, 43, 2, 95-117.

OECD (Organisation for Economic Cooperation and Development), 1997 'National Innovation Systems', OECD, Paris.

Olk., P and Elvira.,M (2001) Friends and strategic agents: The role of friends and discretion in negotiating strategic alliances *Group and Organization Management* Vol26 (2) pp124-164

Olsen, S and Currie, H 1992 Female entrepreneurs; Personal value systems and business strategies in a male-dominated industry *Journal of Small Business Management* 30,1 49-58

Orser, B and Hogarth-Scott, S 2002 Opting for growth: Sex dimensions of choosing enterprise development *Canadian Journal of Administrative Sciences* 19, 3, 284-301

Park, S, (2001) Regional innovation strategies in the knowledge-based economy. *Geo Journal*, 53, pp29-38

Porter, M. (2001) The Microeconomic Foundations of Economic Development in *The Global Competitiveness Report 2000*, World Economic Forum, 2001

Porter, M. E. (1998). Clusters and the new economics of competition. *Harvard Business Review*, Nov-Dec.

Porter, M. E. (2000). Location, competition, economic development: local clusters in a world economy *Economic Development Quarterly*, 14, 1, 15-34

Porter, M. E., (1999) *The New Challenge to America's prosperity: Findings from the Innovation Index*, Council on Competitiveness

Robson, P and Bennett (1999) central government support to SMEs compared to Business link, Business Connect and Business shop and the prospects for the small business service *Regional Studies*, 33 98) pp779-787.

Rozier, C and Thompson, M 1998 Female entrepreneurs in a female-dominated health profession: An exploratory study *Journal of Development Entrepreneurship* 3,2 ,149-164

Saxton, T (1997) The Effects of Partner and Relationship Characteristics on Alliance Outcomes *Academy of Management Journal* 40 (2) pp443-461

Scott, J. (2003) *Social network analysis : A handbook*, 2nd edn. London: Sage.

Shane, S and Venkataraman, S., (2000) The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25 (1), p. 217-226.

Shane, S. (2003). *A General Theory of Entrepreneurship*. Cheltenham, UK: Edward Elgar.

Sherer, S (2003) Critical success factors for manufacturing networks as perceived by network coordinators *Journal of Small Business Management* 41(4) pp325-339

Singh, R., Hills, G, Hybels, R and Lumpkin, (1999) Opportunity recognition through social network characteristics in entrepreneurship. Paper presented at the 1999 Babson College on Entrepreneurship Research, Columbia. SC

Singh, R.P. (2000) *Entrepreneurial opportunity recognition through social networks*, Australia: Macmillan Education

Spector, P (1987) Method Variance as an Artifact in Self-reported Affect and Perceptions AT work: Myth or Significant Problem? *Journal of Applied Psychology* Vol 72 (3) pp438-44

Spector, P (1994) Using Self-reported questionnaires in OB research: a comment on the use of a controversial method *Journal of Organizational Behavior* Vol 15 (5) pp385-392

Stevenson, L 1990 Some methodological problems associated with researching women entrepreneurs *Journal of Business Ethics* 9,439-446

Timmons, J (1999) *New venture Creation: Entrepreneurship for the 21st Century*(5th edition)burr ridge IL, Irwin mcgraw-Hill

Verhuel, I and Thurik, R (2001) Start-up capital: Does gender matter? *Small Business Economics*,20 (4) 443-476

Appendix One

Table One: Frequencies of different type of Business

Food and Beverage Processing	Tourism	Building	Training	Mfg	Business Services	Health	Other
14	9	4	10	21	32	11	18

Table Two: Turnover cross-tabulated against Type of Business

Turnover \$ (000's)	Food and Beverage Processing	Tourism	Building	Training	Mfg	Business Services	Health	Other
<50	1	4	1	1	1	9	1	4
50>x<100	2	2		1	3	5	1	4
100>x<500	2	1	2	2	6	8	2	3
500>x<1m	3	1	1	3	7	7	3	4
>1m	6	1		3	4	3	4	3
Total	14	9	4	10	21	32	11	18

Table Three: Results from Main Effects regression examining the perceived benefits for female SMEs of belonging to a network/cluster

Variables 1=SA – 6=SD	Questions used in survey to test independent variables	Female SME owner/manager <i>Statistically significant beta scores</i> F=3.530 p<.05 R² = 21.4%	Mean and Standard Deviation for males and females	Alpha if item deleted
Learning Potential		.061	2.5(1.4)	.7025
	I joined the network because I thought I could learn more from other entrepreneurs		2.7 (1.9)	
	The network is a good place to get new ideas that will benefit my business		2.6 (1.9)	
	I learn a lot about business from talking to other entrepreneurs		2.7 (1.7)	
	I learn a lot about new business opportunities from attending network meetings		2.3 (1.8)	
Market Opportunities		.364 p<.05	2.7 (1.7)	.6846
	Belonging to a network has benefited my business by presenting me with new markets		2.7 (1.7)	
	I joined the network because I wanted to find new business opportunities		2.4 (2.2)	
Supply Chain Opportunities		.175	4.6 (1.6)	.7227
	Belonging to a network will benefit my business by presenting me with more options in my supply chain		2.8 (1.7)	
	The benefits of cooperating with my suppliers		2.9 (2.1)	

	outweigh the problems			
	The benefits of cooperating with competitors to buy raw materials outweigh the problems		5 (2.2)	
	The benefits of cooperating with my competitors to tender for government jobs outweigh the problems		5.3 (2.2)	
	DEPENDENT VARIABLE: Overall, there are benefits to being in a network		2.07(1.47)	

Table Four: Results from Main Effects regression examining the perceived level of satisfaction of female SMEs with government business development officers

Variables 1=SA – 6=SD	Questions used in survey to test independent variables	Female SME owner/manager <i>Statistically significant beta scores</i> F=6.421 p<.000 R² = 34.2%	Mean and Standard Deviation for males and females
Encouraged joining		.348 P<.000	5.47 (2.7)
	Discussions with government development officers encouraged me to join in the network		
Encouraged participating		.172	5.04 (2.4)
	Discussions with government development officers encouraged me to actively participate in the network		
Supported network development		.214	3.08 (2.0)
	Government development officers have an important role to play in supporting the development of networks		
Dependent variable:	Overall, I am satisfied with the assistance from government business development officers		5.09 (2.30)