

The Role of Social Networks in the Entrepreneurial Performance of Small and Medium Scale Entrepreneurs in the Ratnapura District

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Abstract

The central issue addressed in this study is whether social networks of the entrepreneurs were a determinant of entrepreneurial performance. The study is based on Granovetter's argument that economic action, including entrepreneurship is embedded in networks of social relationships.

The study was conducted in the Ratnapura district in Sri Lanka, with a sample of forty entrepreneurs drawn from the membership list of the Sabaragamuwa Chamber of Commerce and Industry. In an attempt to identify whether there was a relationship between networking and entrepreneurial performance, a survey questionnaire was developed, and data were collected on network size, activity level, diversity, multiplexity, reciprocity and entrepreneurial performance. A positive relationship between entrepreneurial performance and five identified network dimensions was hypothesised.

The results of the study reveal that diverse and dense networking has a positive effect on performance. The time spent on developing and maintaining network contacts, network multiplexity and reciprocity were positively related to performance. Thus, the hypotheses formulated in this study were supported by the results. The empirical results also supports the social embeddedness model of business relations, friends and family were at the center of entrepreneurs' network, and the networks are of long duration.

Introduction

Economic activities like other social processes do not go in a vacuum. Small business owners are a particularly good example of the embeddedness of economic activities within a social context (Granovetter, 1985).

Entrepreneurship studies took an important turn when the focus shifted from the analysis of sociopsychological characteristics of entrepreneurs to the social and institutional context in which entrepreneurship is embedded (Birley, 1985; Aldrich & Zimmer, 1986). Thus, Entrepreneurship represents an interesting phenomenon to be examined from a network perspective. The subject of networking has long been a subject of considerable interest to the discipline of organizational behavior and management studies, particularly since the widespread acceptance of Granovetter's (1985) observation that 'economic action is embedded in ongoing networks of personal relationships rather than carried out by autonomous actors'.

Entrepreneurs own independent business, but operate within a network of people (Dollinger, 1984; Aldrich & Zimmer, 1986). 'Entrepreneurs try to build successful business by maximizing the opportunities they find and minimizing the obstacles, they confront. Networking allows entrepreneurs to enlarge their span of action, gain access to resources and opportunities otherwise unavailable and avoid

obstacles' (Aldrich & Elam, 1997). Networks becomes a key resource since it is the means by which opportunities are identified and secured (Dubni & Aldrich, 1991) and the means by which firms gain access to resources they do not control (Jarillo, 1989). Aldrich & Zimmer (1986) consider that entrepreneurial organizations are implanted in a social milieu and that the expansion or contraction of these organizations depends in no small measure on 'the position of the entrepreneur in social networks'.

Many scholars propose a causal relationship between networking and performance (Birley, 1985; Aldrich & Zimmer, 1986; Dubni & Aldrich, 1991; Birley, Cromie & Mayer, 1991; Hansen, 1995; Ostgaard & Birley, 1996). Therefore, a study of networking skills and strategies may give new insights as well as provide alternative factors for understanding venture success (Starr, MacMillan, Thompson & Franklin, 1990). In this context, the research question addressed in this study is 'Do social networks of entrepreneurs influence entrepreneurial performance?'

This study attempts to accomplish three main objectives; (1) Assess the nature of social networks and explore the role of networking among entrepreneurs (2) To identify the networks dimensions such as network size, activity, diversity, multiplexity and reciprocity (3) To determine the relationship between network dimensions and entrepreneurial performance.

Literature Review & Conceptual Framework

The embeddedness of entrepreneurial behavior

Two approaches have been offered for analyzing social networks in economic context: a neoclassical economic approach and a social embeddedness approach (Granovetter, 1985).

The neo classical economic approach describes business owners as individuals who fearlessly enter unfamiliar territory and seek advice and resources from whoever might be willing to provide them. This model view social networks as a means to obtain access to resources with exchange value: they may be used to enhance upward mobility, to maximize economic gain, or to allocate resources. Business owners view information as a commodity and networks as the marketplace in which information is traded. Because owners, as individual gain-maximizers, are interested in making the best deals possible, they pick members of their network on an efficiency basis, acquiring and discarding network members as needed, given evolving circumstances. Strong ties, such as those built on intimate friendship and long-standing relations are viewed as clouding people's visions and constraining their abilities to make pragmatic business decisions. To the extent that social ties are infused with notions of equity, loyalty, and tradition, they may be viewed, from this perspective, as constraints on efficient exchange (Staber & Aldrich, 1995).

By contrast Granovetter, (1985); Aldrich & Zimmer, (1986) proposed a perspective that views entrepreneurship as embedded in networks of continuing social relations. From this perspective, business owners behave rationally and instrumentally when they conduct their economic activities through personal networks. All economic action is infused with social motives and economic actors are never wholly atomized in economic life. The key units in analyzing

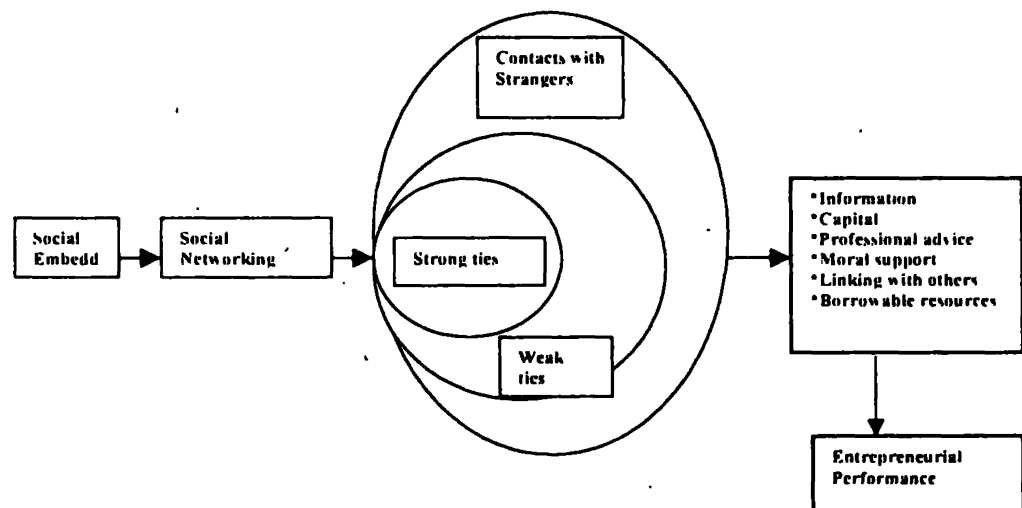
economic exchange are social relations, involving recurrent transactions rather than either individual actors or isolated transactions (Staber & Aldrich, 1995)

The approach taken in this study view entrepreneurship as embedded in networks of continuing social relations (Granovetter, 1985 Aldrich & Zimmer, 1986) The network will be viewed not as constraints but as opportunity structures that will enable social actors to realize their own interests This is consistent with the argument of Granovetter (1985) that social networks should be viewed as a kind of social capital that ego can use to further its own interest

The conceptual framework

Traditional views of entrepreneurship research have neglected the rational nature of the process. Instead, entrepreneurs were treated as atomized decision-makers operating as autonomous entities or, as prisoners of their cultural environment predisposed to entrepreneurship (Granovetter, 1985, Aldrich & Zimmer, 1986). By contrast, the social embeddedness approach (Granovetter, 1985) argues that virtually all-economic behavior in modern life is embedded in networks of social relations. In the context of this study social embeddedness is defined as the idea that economic transactions are rarely impersonal, but rather are conducted by people who already know one another and have some social relationship, while social network is defined as the sum total of relationships in which an entrepreneur participates and which, is utilized to further his or her business (Drakopoulou, and Patra, 1998:1). Entrepreneurship is often closely related to embeddedness, since entrepreneurs rely on their social contacts for support of all kinds, including information, professional advice, moral support, and financial investments and management assistance. Thus, this study proposes a social embeddedness model of business relations to explain how the social networks of entrepreneurs contribute to their success and attempts to answer the research question: Do social networks of entrepreneurs influence entrepreneurial performance? The conceptual model is shown in figure 1.

Figure 1: Social embeddedness and entrepreneurial performance



Research hypotheses

Based on the research question and assumed casual relationship given in the conceptual model, the following four hypotheses were formulated.

Hypothesis 1 (H1): There is a positive relationship between network size and entrepreneurial performance

The entrepreneurial network literature frequently reports that network size is positively related to organization founding and performance (Aldrich, Rosen & Woodward, 1987; Burt, 1992; Hansen, 1995; Ostgaard & Birley, 1996). Boissevain (1974) argues that size is the most important structural criterion of person's network, while Aldrich et al., (1987) argues that network size as the only variable that shows significant relationship with performance. 'Network density effects the speed with which information circulates to network members. The more ties between members, the more quickly information is likely to diffuse, as word of an opportunity or resource can be passed on from several people' (Aldrich, Rees, & Dubini, 1989). Entrepreneurs identify product or service ideas, access to markets, information, cash and other resources in their environments, and they gain access to these resources through exchange transactions with various members of their social networks (Starr, & MacMillan, 1990). Therefore, the number of contacts is important for the success of the business irrespective whether the business is old or new.

Hypothesis 2 (H2): There is a positive relationship between network activity and entrepreneurial performance

Entrepreneurs must put themselves in the path of persons potentially relevant to their business, and then occasionally follow up contacts they have made to keep relations fresh. Although, developing and maintaining personal contacts are time consuming they are still important functions. Several studies indicate that a significant amount of energy and time is spent by entrepreneurs on developing and maintaining contacts (Aldrich et al., 1987; Birley, Cromie & Mayers 1991). Ostgaard & Birley, (1996) found a correlation between business growth and the number of hours spent on communicating with their personal contacts.

Hypothesis 3 (H3): There is a positive relationship between network diversity and entrepreneurial performance

If someone's goal is to maximize information, to search for resources and opportunities, it is advantageous to have diverse networks that contain a variety of people. Dubni & Aldrich (1991) found that effective entrepreneurs are more likely than others to undertake action towards increasing their network density and diversity and to stabilize and sustain networks.

Hypothesis 4 (H4): There is a positive relationship between network multiplexity and entrepreneurial performance

The entrepreneur is likely to draw multiple, uses of a particular member of the entrepreneurs' network. Multiplex relationships tend to be more enduring, intense, stable, influential, supportive and intimate (Rogers & Kincaid, 1981).

Hypothesis 5 (H5): There is a positive relationship between network reciprocity and entrepreneurial performance

Reciprocity refers to the degree to which individuals share information and /or disclose personal data and opinions. Entrepreneurs' reciprocal ties with network members are likely to benefit both the entrepreneur and the network member through the mutual exchange of benefits. Reciprocal ties are stronger and stable. Stable and stronger ties are likely to bring in more benefits to both parties involved in the network relationship (Rogers & Kincaid, 1981). Thus, it is assumed that reciprocal ties positively contribute to entrepreneurial performance.

Methodology

Characteristics of the sample

The members' list of the Sabaragamuwa Chamber of Commerce and industry (SCCI) was used as the sampling frame for this study. A purposive convenient sample of forty entrepreneurs was selected from the list of 83 entrepreneurs registered with SCCI. Members of this organization consist of businessperson from the Ratnapura district. This group was chosen because the members all own and operates their own business and the entrepreneurs were in business for at least four years.

The research instrument

For this study, a survey questionnaire was used. The survey instrument was designed to investigate three areas of interest about the entrepreneur and his business. The first part of the questionnaire was aimed at gathering information about the entrepreneur's background and consisted questions regarding age, education, ethnicity, type of business, business experience, business ownership, and ownership of other businesses.

In the second part of the questionnaire, the entrepreneur was asked to report on network contacts that he uses to further his business. In the context of this study, network was defined as the sum total of relationships in which an entrepreneur participates and which, is utilized to further his or her business. This part of the questionnaire was constructed from multiple sources. It included items on networks from the questionnaires developed by Aldrich, et.al. (1987) & Barr (1995). The resources exchanged through the network relationship was grouped into six categories: information, capital, advice, moral support, linking with others, borrowable tangible resources, except moral support all other groups were based on questionnaire developed by Sandberg & Logan (1997).

The entrepreneurs network members were categorized into nine groups, family, friends, acquaintances in same business, acquaintances in different business, acquaintances in large business, professional advisors, government officials, politicians and investors or lenders. This categorization was done after a broad review of the literature on entrepreneurship. Customers and suppliers were considered in some studies (Sandberg & Logan, 1997) as network categories but in this study customers and supplier categories were not considered because at the pre-testing stage of the questionnaire respondents named large number of customers and suppliers with whom they have business dealings and most of these contacts were weak ties. The second part of the questionnaire had questions regarding number of valuable contacts, how often they meet, duration spent on maintaining and developing network contacts, the type resources

exchanged, how long the network members were known and the most common way of meeting.

The final part of the questionnaire consisted questions pertaining to entrepreneurial performance covering the following areas, number of employees, turnover, number of vehicles and value, innovation and expansion.

Variables and measures

Table 1 shows the variables and measures used in the study.

Table 1: Variables and measures

Variable	Measure
Network size	total number of individuals with whom the entrepreneur discussed business over the last six months
Network activity	number of hours spent in developing and maintaining network contacts per week with five most important network members.
Network diversity	number of groups within which the entrepreneur had at least one contact.
Network multiplexity	number of resource categories received through each group of contacts. Multiplexity score = $\frac{\sum a}{n}$ a – average number of resource categories received from each group of contacts n - sample size
Network reciprocity	number of resource categories reciprocated with each group of contacts. Reciprocity score = $\frac{\sum b}{n}$ b- average number of resource categories reciprocated with each group of contacts n- sample size
Employee growth	Change of employees from 1998 to 2000.
Assets growth	change in the value of vehicles owned by the business from 1998 to 2000.
Turnover growth	Change of turn over from 1998 to 2000.
Innovation	introduction of new product, penetrating into new markets and use of new technology from 1998 to 2000.
Expansion	business expansion and new business start ups between 1998 and 2000.

Network preference score

Importance of network members for resources acquisition was identified by rating the response to the question on the importance of individuals in each category as sources of information, capital, advice, moral support, linking with others, and borrowing resources. Importance was rated on a four-point scale ranging from not important to extremely important. A rating of the importance of all six groups of resources with regard to a particular category of individual were summed to create a measure of the importance of the network member category to the entrepreneur. This particular measure is called the network preference score, thus nine network preference scores were devised for each entrepreneur. Birley (1985) followed a similar type of ranking of sources.

Methods of data analysis

Owing to the categorical nature of the variables, the hypotheses were tested using contingency tables and chi-square test of significance. A correlation test was performed to determine the relationship between network variables and entrepreneurial performance variables. The Statistical Analytical Software (SAS) was used to analyze the data.

Results

Background Information

The results of the questionnaire items pertaining to background information about the entrepreneur and his business indicate that the entrepreneurs were operating small to medium scale businesses. The mean size of the business was 30.4 employees, with the largest having 75 employees and the smallest having 14 employees. The background information is summarized in Table 2

Table 2: Background information

Sex	Male	Female		
	33(85)	6(15)		
Age	<30 years	30-40 years	41 -50 years	>50 years
	3(7)	15(39)	12(31)	9(23)
Ethnic group	Sinhala	Muslim	Tamil	
	21(54)	16(41)	2(5)	
Education	Less than ordinary level	Ordinary level	Advanced level	Degree and above
	3(8)	22(56)	12(31)	2(5)

(Table 2: contd...)

Business Experience	<10 years	10-20 years	>20 years	
	9(23)	16(41)	14(36)	
Business ownership	Sole proprietorship	Partnership	Limited Liability Company	
	23(59)	13(33)	3(8)	
Industry	Manufacturing and Trading	Service and Trading	Construction	
	12(31)	25(64)	2(5)	

Source: survey data

Note: figures in parenthesis are the percentages

Network size

The average network size was 11.4 (SD 6.4) with largest reporting 20 members and the lowest reporting 4 members. A majority of the network members were friends and family/relatives, on average 25% of the entrepreneurs network contacts were drawn from friends while 22% were family contacts. Business acquaintances in different business accounted for 10%, while other notable category was the lenders accounting for 11% of network membership.

Network activity

Network activity refers to the amount of time spent by entrepreneurs to develop and maintain their network contacts with the most important five network contacts. The entrepreneur on average spends 8.2 (SD 4.5) hours per week in developing and maintaining network contacts. Entrepreneurs spend 25% of the time on maintaining and developing business contacts with the family and relatives. Of the total time spent on maintaining and developing contacts the highest time 31% was spent on friends while 7%, 13%, and 10% respectively was spent with same business, different business and lenders.

Network diversity

Network diversity was measured in terms of the number of network member groups within which the entrepreneur had at least one contact. The data reveals that on average the entrepreneurs had at least one contact with five groups out of the nine groups identified in this study. Of the respondents 59% reported that they did not have close associates to seek professional advice. A majority of the entrepreneurs did not have close contacts with politicians (72%) and government officials (62%).

Network multiplexity

Multiplexity refers to the multiple usages of the network contacts. According to the findings the highest multiplexity score of 5.6 out of the maximum possible score of 6 was shown by the relationship with friends, 5.2 with family and relatives, while relationship with different business acquaintances gave a multiplexity score of 4.3. Other relationships had relatively low multiplexity scores.

Network reciprocity

Network reciprocity refers to the degree of resource exchange (information, capital, advice, moral support, linking with others and borrowable tangible resources) between entrepreneur and the network members. The network reciprocity score was used to capture the network reciprocity. According to the results of the analysis exchange between the entrepreneur and the friends show the highest reciprocity score of 3.2 out of the maximum possible score of 6, while exchanges with the business acquaintances in different businesses was the second highest with a reciprocity score of 2.7. Exchanges with family have a reciprocity score of 2.6. Exchanges with professional advisors, government officials were not considered because they were not reciprocal with respect to the group of resource considered in this research.

Network source preference and number of years the entrepreneur has known the network member

The network source preference refers to the extent to which the entrepreneur sought and received resources (information, capital, advice, moral support, linking with others and borrowable resources) from the nine potential sources: family, friends, same business acquaintances, different business acquaintances, large business acquaintances, professional advisors, government officials, politicians, and lenders. The family and friends were the major source of assistance to the entrepreneur, while the formal sources of assistance like professional advisors, government officials were hardly of any use to the entrepreneur. Of the formal sources as expected the lenders were the highest contributors.

The sources were ranked and weighted according to their ranks and a score computed for each type of resource sought. The results are shown in table 3. Using information as an example, the most sought source for information was friends followed by family, different business, lenders, same business, large business, and professional advisors.

Table 3: Sources ranked by overall usage

	Family	Friends	Same business	Different business	Large business	Professional advisors	Lenders
Information	2	1	5	3	6	7	4
Capital	2	3	6	4	5	7	1
Advice	1	2	7	4	5	3	6
Moral Support	1	2	4	3	6	5	7
Linking others	2	1	5	3	4	7	6
Borrowable resources	1	2	5	4	3	-	-

Source: survey data

These data support the reliance of the entrepreneur upon family and friends as the primary source of acquiring resources. Of the business contacts network members in different business are more beneficial than contacts in same business or large business.

Table 4: Average number of years the entrepreneur has known the network member

Type of Network	Avg. number of years known*
Family	17
Friends	8
Same Business	6
Different Business	7
Large Business	4
Professional advisors	3
Government officials	2
Politicians	3
Lenders	2

Source: survey data

Note: * Avg. of the three most important contacts

The average number of years that entrepreneurs have known their network members is shown in table 4. This average varies across different types of relationships. Relationship with family members and friends, different business are above the average age of 6 years of the business in the sample indicating that these relationships were possibly formed before the business was established.

Entrepreneurial performance

Table 5: Entrepreneurial performance

Performance Indicator	Number of Responses	Percentage
Employee growth		
Decrease	2	5
Increase*		
< 10%	3	8
10% < 40%	11	28
40% < 70%	16	41
> 70%	7	18
Asset growth (Vehicles)		
Increase	33	84
Same	3	8
Decrease	3	8
Turnover growth		
Worse	2	5
Same	2	5
Better	35	90
Innovation		
New products/services	16	41
New markets	19	49
New technologies	32	82
Expansion		
New business	13	33
Expansion	24	62

Source: survey data

Note: * as a percentage of employees in 1998

The entrepreneurial performance of the entrepreneurial ventures were measured using five performance measures namely employee growth, asset growth, turnover growth, innovation, and expansion. A summary of entrepreneurial performance data is given in table 5.

The Pearson correlation coefficients

Table 6 shows the Pearson correlation coefficients between the five entrepreneurial performance variables and five network variables. The network size shows high positive correlation with all the performance variables. Except multiplexity, all other network variables are positively correlated with the performance variables. Therefore, in general the above results support the research model.

Table 6: Pearson correlation coefficients

	Employee growth	Asset growth	Turnover growth	Innovation	Expansion
Size	0.720*** 0.000	0.775*** 0.000	0.563*** 0.000	0.486*** 0.002	0.531*** 0.001
Activity	0.399** 0.012	0.240 0.140	0.350** 0.029	0.350** 0.029	0.390** 0.014
Diversity	0.643*** 0.000	0.731*** 0.000	0.415*** 0.009	0.415*** 0.009	0.391** 0.014
Multiplexity	0.466*** 0.003	0.428*** 0.007	0.308* 0.057	0.224 0.171	0.132 0.423
Reciprocity	0.499*** 0.001	0.384** 0.016	0.596*** 0.000	0.522*** 0.001	0.463*** 0.003

Note: 1. * significant at 0.1 level **significant at 0.05 level; ***significant at 0.01 level
2. correlation among network variables were relatively low ($r < 0.46$)

Tests of the hypotheses

Chi-square tests were performed using the Statistical Analytical Software (SAS) to test the hypotheses. The results of these tests are summarized in table 7.

Table 7: Chi-square test results

	Employee growth	Asset growth	Turnover growth	Innovation	Expansion
Size	33.093*** 0.000	23.703*** 0.000	15.068*** 0.001	10.330*** 0.002	13.394*** 0.001
Activity	5.407* 0.067	4.387** 0.036	5.937** 0.046	4.847** 0.036	5.826** 0.016
Diversity	16.600*** 0.000	20.842*** 0.000	6.724*** 0.010	6.560*** 0.010	5.977** 0.014
Multiplexity	16.372*** 0.003	11.345*** 0.003	10.773*** 0.005	7.653** 0.022	5.712* 0.057
Reciprocity	8.930* 0.063	7.531** 0.023	12.538*** 0.002	8.904** 0.012	6.881** 0.032

Note: * significant at 0.1 level **significant at 0.05 level; ***significant at 0.01 level

The chi-square test results supports the first hypothesis indicating a positive relationship between the network size and entrepreneurial performance. The performance measures, employee growth, asset growth, turnover growth, innovation and expansion, are all significant at 1%. The second hypothesis predicted a positive relationship between networking activity measured in terms of the time spent in developing and maintaining network contacts and entrepreneurial performance. This hypothesis was supported by the chi-square test results at 5% significance level except the relationship between network activity and employee growth. The results supported the third hypothesis indicating a positive relationship between network diversity and entrepreneurial performance. According to the chi-square test results, employee growth, asset

growth, turnover growth, and innovation were significant at 1%, while the performance measure expansion was significant at 5%. The fourth hypothesis concerned with the influence of network multiplexity on entrepreneurial performance was partially supported by chi-square test results. The final hypothesis relating network reciprocity and entrepreneurial performance was too supported by the chi-square test except the relationship between employee growth and reciprocity.

Discussion

This study was based on the assumption that economic action including entrepreneurship as embedded in networks of social relationships (Granovetter, 1985; Aldrich & Zimmer, 1986). It was proposed that the social embeddedness model is superior to the neo-classical economic model for understanding how the networks of business owners are constructed. The standard economic model predicts that owners' networks are pragmatic arrangements of fleeting duration and include a core of weak connections assembled on a pragmatic basis, surrounded by a few close personal relations. By contrast the, social embeddedness model view networks as products of long-standing affiliations and identities that are involved overlaid on calculative business relations. Entrepreneurs, from this perspective, build networks with a core of close and long term personal relations and a periphery of weaker ties assembled on a more haphazard basis. The empirical results are consistent with the embeddedness model. The results show that at the center of entrepreneurs' networks are the people they have known for many years; friends, family and business associates.

This research supports the proposition that entrepreneurial networking is positively related to entrepreneurial performance. The first hypothesis predicted a positive correlation between network size and entrepreneurial performance. This hypothesis was strongly supported by the findings of the study. The entrepreneurs relied heavily on informal networks of friends and family members; therefore, the network membership mostly consisted of friends and family members. The positive relationship between network size and performance does not imply that increasing network membership alone will result in better performance. According to Dubni & Aldrich (1991) effective entrepreneurs undertake actions towards increasing not only network density but also network diversity. According to the empirical results of the study network diversity was positively related to entrepreneurial performance thus hypotheses one and two put together supports the findings of Dubni & Aldrich (1991).

Time spent in developing and maintaining network contacts appears to have a significant impact on performance. The entrepreneurs spend more time in developing and maintaining contacts with friends and family members compared to business and professional contacts. The results give support to Allen & Cohen (1969) who found high performers to make far greater use of colleagues as source of technical information. The respondents in this study spend less time in maintaining and developing network contacts than exhibited by groups in similar studies (Aldrich, et. al., 1987; Birley, et. al., 1991 and Drakopoulou & Patra, 1998).

Entrepreneurs' most preferred networking category was friends while family contacts were the next preferred source. Entrepreneurs appeared to be using friendship network and family network as source of information, advice, capital,

moral support, linking with others, and as source of borrowable tangible resources. This could be attributed to Sri Lankan cultural context in which social networks play an important role in business success. Business contacts particularly contacts with individual in different business were used to certain extent as source of information, advice, capital, moral support, and to link with others.

The network multiplexity measured in terms of the extent to which networks are used for multiple purpose and network reciprocity measured in terms of the extent to which networks are used for mutual benefits were positively related to entrepreneurial performance. Thus, reciprocal networks with high multiplexity could be considered as more effective, strong and stable. Therefore, successful entrepreneurs' ties with family, friends, and business associates in different business can be considered as strong and stable.

The results of the study reveal that entrepreneurs in this study mainly rely on family and friendship contacts and to lesser extent on business and professional contacts. This finding contrasts the findings of Birley (1985) & Johannisson (1990) where they argue that at later stage of enterprise development entrepreneurs rely increasingly on professional and formal contacts.

Finally this study does not rule out the standard economic model, which proposes that entrepreneurs select at least some of the members of their inner circle on a pragmatic and efficient basis, because the study of weak ties was not within the scope of this study.

Directions for Future Research

The inferences made from this study are based on cross-sectional data, obtained from active entrepreneurs at only one point in time. Due to the dynamic nature of entrepreneurial networks an ethnological design involving field research in on-going business would shed more light on the salience of network activity. Although field studies are time consuming, they are superior to cross sectional studies because the rich observations made possible by such studies would give a picture of the extent to which entrepreneurial networks are socially embedded as well as their significance to business performance.

This study measured five dimensions of networking, size, activity level, diversity, multiplexity and reciprocity. The first three dimensions are commonly used in entrepreneurial network studies, but multiplexity and reciprocity are rarely used, future studies could attempt to improve on the method used in this study to measure these dimensions. This study has only dealt with strong ties and primary ties of the entrepreneur. Literature on network emphasizes the importance of weak ties (Granovetter, 1973; Aldrich & Zimmer, 1986; Burt, 1992), therefore future studies can investigate the role of weak ties and secondary ties in entrepreneurial performance.

Conclusion

The empirical findings of the study reveal that diverse and dense network, time spent on developing and maintaining network contacts, network multiplexity and network reciprocity has positive effect on entrepreneurial performance. Thus, the hypotheses formulated in this study were supported by the results.

The empirical results also supports the social embeddedness model of business relations, friends and family are at the center of entrepreneur' networks, the networks are of long duration. Thus, this study supports the proposition that social ties are significant for the success of the entrepreneurial venture.

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