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EFFECT OF PARTICIPATION IN BUSINESS MEMBERSHIP ORGANIZATIONS ON THE SIZE AND OCCUPATIONAL DIVERSITY OF ENTREPRENEURS' CORE BUSINESS DISCUSSION NETWORK[1]

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ABSTRACT

Participation in social networks is associated with increased odds for entrepreneurial success, but few studies suggest how one best establishes a social network. This study investigates the effect that participation in business or professional membership organizations has on the size and occupational diversity of business owners' core business discussion networks. It compares the networks of those who belong to business-type membership organizations against those who do not. Results suggest that belonging to these organizations has a significant effect on the size and composition of the core business discussion network for male business owners, but not for females.

Keywords: Social Networks, Social Capital, Business Member Organizations, Entrepreneurs

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INTRODUCTION

The importance of entrepreneurial activity to economic progress is well established (Schumpeter, 1934; Shane, 2004). While founders of businesses face a high probability of failure (Strotmann, 2007), many factors exist that may increase the likelihood of success. Among these factors are: business planning (Delmar & Shane, 2004), the reputation of affiliated firms and institutions (Higgins & Gulati, 2003; Stuart, Hoang, & Hybels, 1999), ownership of intellectual property (Zhang, Soh, & Wong, 2009) and social networks (Florin, Lubatkin, & Schulze, 2003).

Access to social capital via networks has been extensively discussed in the literature, and studies show that personal networks can be a key ingredient in overall firm performance through exchange of knowledge and access to resources (Hargadon & Sutton, 1997; Nahapiet & Ghoshal, 1998). Obtaining resources for a new venture often involves asking others for money, labor, and additional resources for a venture with a somewhat uncertain future (Dubini & Aldrich, 1991). This may be why some say that the entrepreneurs' social networks could be the entrepreneurs' most important strategic resources for the new venture (Ardichvili, Cardozo, & Ray, 2003; Dubini & Aldrich, 1991), as these networks of ties provide access to necessary resources which can then affect firm survival (Liao, Welsch, & Moutray, 2008/2009).

Social network theory suggests that an organization's external networks are a major contributor to its overall performance (Vissa & Chacar, 2009), as firms conduct transactions with business partners to acquire resources in order to produce goods and services (Burt, 1992; Pennings, Lee, & Witteloostuijn, 1998). Social capital, which is defined as the aggregate of resources available through the network of relationships possessed by an individual or organization (Inkpen & Tsang, 2005), represents the ability of actors to secure benefits by virtue of membership in social networks or other social structures (Portes, 1998). The idea is that through social ties, entrepreneurs can gain access to knowledge and information, opportunities for new business, enhanced understanding of network norms, and can obtain credibility through affiliation with individuals or institutions of high esteem (Higgins & Gulati, 2003; Inkpen & Tsang, 2005; Portes, 1998).

While some conflicting theoretical and empirical evidence exists as to how, and when, various types of connections are helpful, for example, structural holes (Burt, 1992), weak ties (Granovetter, 1973), or strong ties (Brüderl & Preisendörfer, 1998), there is substantial evidence that social networks are an important factor in a firm's ability to obtain financial capital (Batjargal & Liu, 2004), human resources (Lee, Lee, & Pennings, 2001), and alliances (Walker, Kogut, & Shan, 1997). Furthermore, the social capital derived from social networks facilitates the formation of start-up companies (Walker, et al., 1997), and affects the overall firm performance (Koka & Prescott, 2008; McDonald, Khanna, & Westphal, 2008; Watson, 2007).

Despite the large array of research discussing the benefits of social networks, "it is surprising to note that relatively few studies have examined how new ventures build and grow their networks" (Milanov & Fernhaber, 2009, p. 47), hence we continue to know little about their emergence (Stuart & Sorenson, 2007). The literature has examined the effect of joining various

voluntary groups on the size and heterogeneity of one's overall social network with disparate results (e.g. Bekkers, Volker, Van der Gaag, & Flap, 2008; J. M. McPherson & Rotolo, 1996), however, there exists little literature that discusses whether it is beneficial for entrepreneurs to attempt to proactively form or broaden his or her social network by being active in formalized business membership organizations such as a trade association, chamber of commerce or rotary. Overall, there appear to be no comparative studies that analyze the variances between those entrepreneurs who invest time and money to build their social networks via business membership organizations, and those who rely mostly on informal networking through chance encounters or other methods of business networking, providing business owners no prescriptions on how best to develop a productive social network.

The purpose of this study is to investigate the effect that membership in business or professional membership organizations has on an entrepreneur's Core Business Discussion Network's (CBDN) size and occupational diversity. If larger and more functionally diverse social networks lead to greater business success, can an entrepreneur increase her odds for success by joining one or more such organization? Core discussion networks, which are subsets of owners' overall social networks, are composed of those persons with whom we are willing to discuss important topics (M. McPherson, Smith-Lovin, & Brashears, 2006). Hence, a Core Business Discussion Network is defined as those people an entrepreneur goes to first and most frequently with questions or issues regarding business, while occupational diversity looks at the diversity of functional business knowledge residing within the CBDN.

This paper contributes to the entrepreneurship literature and provides practical advice to business owners as it explicitly examines the effect of joining one or more business membership organizations on the demographics of business owners' CBDNs, thus providing clear advice as to best practices. We find differing results for male and female business owners. For males, joining these business organizations has the effect of expanding the portion of their CBDN drawn from business contacts, as well as its occupational diversity, but not so for females.

The paper continues with a brief review of the literature surrounding entrepreneurship and social networks which will serve as a foundation for the development of hypotheses. This will be followed by a discussion of the study methodology, data analysis, and results. Study conclusions, limitations and contributions will close the article.

ENTREPRENEURS AND SOCIAL NETWORKS

We focus on network size and occupational diversity because past research has shown these network attributes to have important consequences for the quantity and range of resources available to those engaged in business activities (Kale, Singh, & Perlmutter, 2000; Renzulli & Aldrich, 2005). The size of social networks has been shown to positively affect organizational growth (Hansen, 1995). Essentially, startups with larger networks are expected to enjoy superior early performance because of greater or richer access to information and capabilities (Kale, et al., 2000). The thought is that a network containing a

greater number of contacts should, all else being equal, have access to a somewhat larger pool of resources than a smaller network.

Occupational diversity in relationships constitutes an important avenue through which new and diverse viewpoints, information and resources can be gathered. Those in varying occupations have been exposed to diverse education, experiences and social contacts and thus possess varying knowledge bases, social networks and access to information and resources. These diverse network connections help entrepreneurs to gather non-redundant, and possibly actionable information (Granovetter, 1973). In particular, networks containing individuals with diverse occupations have been shown to facilitate entrepreneurs' access to financial resources (Renzulli & Aldrich, 2005) and enhance firm performance (McEvily & Zaheer, 1999).

Research shows that successful entrepreneurs spend time building their networks. For example, a study by Delmar and Shane (2004) concluded that firms that undertake activities to generate social ties to external stakeholders reduce the hazard of the venture disbanding during the first 30 months of venture life. In addition, Dollinger (1985) provided evidence that successful entrepreneurs were particularly active in networking with business people and others who were influential (for example: suppliers/vendors, potential employees, business trade associations and stockholder/creditors). The Dollinger study showed that business owners spend a significant amount of time on outside activities. While the highest use of outside time was spent with customers, the second-highest use was spent with contacts in business membership organizations. These organizational contacts each lasted almost an hour, suggesting that a significant amount of time was invested in the development and maintenance of relationships with other business people. In addition, Batjargal (2003) examined the impact of entrepreneurs' social capital on firm performance and determined that the ability of entrepreneurs to mobilize financial resources from network ties improves financial performance, as the reduced cost of financial capital is then reflected in lower overall costs, making products more competitive on the market, and thus facilitating revenue growth.

Many studies suggest positive outcomes due to networking (Lechner, Dowling, & Welpe, 2006; Staber & Aldrich, 1995). For example, Egge and Stoehr (1997) showed that the economic benefits of participating in a business membership organization exceeded the direct costs of belonging to the organization, with members reporting positive business decisions being made that were strongly influenced by their circle of contacts. In addition, most reported that their business group is a more important source of support than their family, board, or others. Specifically, being a member of a business membership organization, such as a chamber of commerce, rotary or other type of business club, was strongly associated with successful exploitation of the business idea in terms of achieving a first sale and of reaching overall profitability (Davidsson & Honig, 2003). While it would appear that joining various business associations provides opportunities to meet a variety of people with diverse backgrounds, research finds that many associations tend to be segregated by sex, age, education and occupation (e.g., J. M. McPherson & Rotolo, 1996) and that joining such associations may actually inhibit the development of diverse networks

because the people met are the same type met in other social situations (Kufman, 2002).

Most business owners recognize the value of networking; the question becomes, is joining a business membership organization a supportive method of building an effective network? This is important, as many organizations tout networking opportunities and access to fellow business owners and others who could potentially be important to an entrepreneur's business as a major benefit of joining their organization. In addition, many nascent entrepreneurs will need to build their social networks; we should inform them clearly as to best practices. This study examines two important network attributes, size and heterogeneity. Specifically, we examine the networks of business owners with regard to the number of business membership organizations in which they participate, and the effect of these memberships on the size and occupational diversity of their CBDN.

HYPOTHESES

The question is whether joining a business membership organization would significantly increase the portion of a CBDN drawn from business contacts, as opposed to other walks of life, as well as its occupational diversity. Previous research, on populations other than business owners that examined the joining of voluntary associations and its affect on the diversity of social networks, finds conflicting results. On the one hand, several studies support the sorting hypothesis (e.g. J. M. McPherson & Rotolo, 1996) which is a homogenizing effect. The explanation is that membership in these organizations mostly provide opportunities to meet people similar to those already known, as several researchers have concluded that many such voluntary groups are segregated by sex, age or education, thus limiting members' opportunities to develop diverse networks (Davis, Renzulli, & Aldrich, 2006). On the other hand, additional studies support the integration hypothesis (e.g. J. M. McPherson, Popielarz, & Drobnic, 1992), which is a diversifying effect. Researchers in this camp conclude that individuals who belong to one or more voluntary groups have larger and more diverse networks (Bekkers, et al., 2008). The explanation by Bekkers and colleagues is based on reverse causation, meaning that those with large or diverse social networks tend to join more organizations because they are recruited by more people and organizations than those with small or closed networks. One of the key terms in this area of research is that of homophily, or the tendency for people to associate with others who are like themselves in terms of social characteristics (M. McPherson, Smith-Lovin, & Cook, 2001). The thought is that people choose to associate with those similar to themselves, and thus join organizations whose members are similar, or are recruited into organizations by its members who are similar.

Size of CBDN

According to research, the size of an entrepreneurs' network is very important to the firm's success. Ostgaard and Birley (1996) point out that the entrepreneurial process involves gathering scarce resources from the environment, and that these resources are usually obtained through the entrepreneur's personal network. They hypothesized that it is a worthwhile enterprise for entrepreneurs to nurture their network, and results showed a correlation between larger firms and larger networks, suggesting that firms might be larger because the owners' networks were larger. Likewise, Hansen (1995) looked at size of

an entrepreneur's action set (those who cooperated or contributed in some way to founding the new organization) prior to founding a business, and found that network size was a significant predictor of payroll. In addition, results from a study by Singh, Hybels, and Hills (2000) suggest that network size is a gauge of the sum body of knowledge the entrepreneur has access to, again suggesting that network size is an important factor for entrepreneurs.

Research by Greve and Salaff (2003), using a cross sectional sample of nascent entrepreneurs from Italy, Norway, Sweden, and the United States, showed that the size of entrepreneurs' networks corresponded to the amount of time these entrepreneurs devoted to development of the network. Studies also suggest that entrepreneurs are quite pragmatic in the development of their networks, adding and pruning people based on an evaluation of their value (Larson & Starr, 1993; Staber & Aldrich, 1995). It would appear logical that one way of meeting new (potentially valuable) contacts would be to join and participate in one or more business membership organization.

The question is, why does joining a business membership organization lead to the addition of business contacts to the joiners' CBDN? The idea is that "If you consistently meet people over such a long time, you know each other. You have a beer with them once in a while. These contacts … are almost on a personal level" (Maurer & Ebers, 2006, p. 273). Over time, and through repeated interaction, communities develop. Strong communities have "identities that separate and a sense of sociological boundary that distinguishes members from nonmembers" (Etzioni, 1996, p. 9). The general rationale is that those who share similar values and goals would be inclined to trust one another (Tsai & Ghoshal, 1998) and hence be inclined to work with each other. Substantial research demonstrates that where relationships are high in trust, people are more willing to engage in social exchange and cooperative interactions, which facilitates access to ideas and people. Furthermore, trust and cooperation are interwoven as "trust lubricates cooperation, and cooperation itself breeds trust" (Nahapiet & Ghoshal, 1998, p. 255). It is in the linkages among individuals or groups that give the collectivity cohesiveness and thereby facilitate the pursuit of common goals, thus leading to the sharing of resources among members (Adler & Kwon, 2002).

While key social network contacts can come from many walks of life, based on the above research and rationale, it is hypothesized that those who join professional networks do so with the intention of looking for valuable contacts to supplement their social network believing that their business will ultimately benefit (Dollinger, 1985; Schouten, 2007). The time and effort spent in this endeavor results in adding social contacts to their overall social network, with some joining the inner circle of their CBDN, thus producing a larger overall CBDN.

> *H1: Participation in business membership organizations is positively associated with the size of an entrepreneur's core business discussion network.*

Makeup of the CBDN

Research points to a general decline in memberships over all types of voluntary associations in the United States, but also notes that there has been an increase in professional association memberships (Putnam, 2000; Rotolo, 1999). This is supported by additional research reporting

that many small business owners believe that building relationships will help their business, and that joining professional groups will aid in this endeavor (Schouten, 2007). The author also noted that selecting the right organizations to join is important, and that an entrepreneur should not expect relationships to develop magically; he or she must invest both time and money in order to make the membership worthwhile.

In the case of business member organizations, it is clear that because these organizations are designed to serve business people, they will consist largely of business people (homogenizing effect) looking to meet other business people. Hence, contacts made through these groups should consist largely of business people and thus should expand the number of contacts in the joiner's overall CBDN derived from business contexts.

H2: Participation in business membership organizations is positively associated with the number of business derived contacts in an entrepreneur's core business discussion network.

OCCUPATIONAL DIVERSITY

Marsden (1987, p. 124), in his study of the data from the 1985 General Social Survey, discussed network heterogeneity as increasing the range of a network, thus providing more information to the "actor", or individual under consideration. He stated, "high diversity . . . is deemed advantageous for instrumental actions like gathering information." While his results focused on measures of heterogeneity such as age, education, race, and sex, Renzulli and Aldrich (2005) brought the concept into the realm of entrepreneurship. Their results suggest that occupational heterogeneity has a large positive effect on the quantity of resources provided.

The benefits of a wide range of contacts is demonstrated by the work of Maurer and Ebers (2006). For a group of six German biotechnology firms, those firms that were more successful had typically extended their social network beyond their existing network of scientists to the business community and industry partners, including lawyers and tax consultants, those with political connections, and those with ties to the financial industry.

In similar fashion, Donckels and Lambrecht's (1995) study of 900 small business entrepreneurs reported that those entrepreneurs having regular contact with other entrepreneurs at the regional, national and international level were more likely to report growth. While these results do not establish causality, in that it may be that growing firms need to establish wider connections, they clearly show a correlation between networking and firm growth. More interestingly, they show a connection between range of networking and firm growth such that broader networking, national and international, was more valuable than regional.

It seems consistent that joining a business membership organization would bring an entrepreneur into contact with business people of diverse job descriptions (e.g. accountant, lawyer, venture capitalist, salesperson) as diverse business people may join such organizations as well as target its members as potential clients (e.g. insurance agents, lawyers, bankers). It also appears logical that joining multiple such organizations could bring an entrepreneur into contact with business people of additional diverse occupations, as each group may have differing goals and

therefore draw from dissimilar sections of the overall business population. This rationale is supported by the work of Davis et al. (2006) who suggest that maintaining multiple memberships in dissimilar organizations could increase one's network diversity.

Based on the above research and rationale, it is hypothesized that all other things held equal, those who join business membership organizations do so with the intent to meet valuable contacts, and will purposefully seek out such contacts, and ultimately derive a more occupationally diverse CBDN than those who choose not to join such organizations.

> *H3: Participation in business membership organizations is positively associated with increased occupational diversity of an entrepreneur's core business discussion network.*

METHODOLOGY

Davis et al. (2006) recommend studying a sample across multiple memberships to better understand the tendency of memberships to expand or contract the diversity of one's social network, including those with and without membership. The sample frame for this research is comprised of those who own businesses and/or are self-employed in the mid-Atlantic region of the United States. In late 2007, a snowball methodology of obtaining respondents was employed. We started with a seed group of 146 business owners/entrepreneurs known to one of the authors through various means. This seed group was sent a request (via e-mail) to participate in a research study using an anonymous online survey. In addition, potential respondents were asked to 1) forward the survey appeal to their list of contacts who were business owners in the same Mid-Atlantic area, and 2) send to the researcher the number of additional people contacted. The snowball technique generated an additional 528 potential respondents, for a total of 674.

Of the original 146 emails, eight were returned due to an invalid email address and one person requested that they be removed from the distribution list. This left an effective sample size of 665.

A survey was developed based on the literature cited above. Ego-centered network analysis explores the relations around each sampled person, rather than the total network of which individuals are members. In ego-centered network studies, respondents describe their networks, activities, and their relations with various network members (Marsden, 1990; Suitor, Wellman, & Morgan, 1997). This form of analysis is especially appropriate for collecting network data from a target population that is a small percentage of a population, and whose relations are not normally concentrated in a single social structure, such as entrepreneurs (Greve & Salaff, 2003) whose networks are often a mix of multiplex social and professional ties (Anderson, Jack, & Dodd, 2005). The survey utilized a name generator technique (Marsden, 1987; Renzulli & Aldrich, 2005) to elicit the names and professions of those that the respondents speak to regularly regarding business issues, and also to understand where the entrepreneur met those individuals. Name generators are used to ensure that the respondent thinks about whom he or she consults with on a regular basis, rather than allowing the respondents to indicate simply that they speak to, for example, four people. In this case, the survey asked respondents to "Please list the people you turn to with business questions or ideas."

With regard to business memberships, respondents were asked: "Do you currently participate in any business organizations, such as a chamber of commerce or other membership-type organization that focuses on business, your specific trade, or your specific profession?" along with a follow-up question to gather the count.

DATA COLLECTION AND ANALYSIS

Over the period of 18 days that the survey remained open, 109 responses were received (16.3 percent response rate). Two surveys were eliminated due to being incomplete, leaving 107 valid responses. Seventy-one respondents (66 percent) report being male, 35 (33 percent) report being female, and one did not answer the question (see Table one).

The majority of respondents, 75.7 percent, participated in one or more business membership organizations. Of those who do participate in these types of organizations, the number of groups they participate in range from one to fourteen, with a mean of 3.05 and a standard deviation of 2.09. The number of memberships was similar for males and females; males have a range of zero to fourteen memberships with a mean 2.27 and a standard deviation of 2.432 while females have a range of zero to six memberships with a mean of 2.39 and a standard deviation of 1.840.

With regard to the CBDN, the survey instrument allowed ten names to be listed. While Renzulli and Aldrich (2005) limited respondents to naming no more than five people that were members of their discussion network, Marsden (1987) found that 5.5 percent of the average Americans' discussion network held six or more people. Therefore, to ensure that most if not all respondents would be able to list their entire discussion network, we allowed for ten responses each. The number of contacts entered ranged from one to ten with a mean of 6.40 and a standard deviation of 2.642. The number of contacts was similar for males and females. Males had a mean of 6.49 contacts, and 45.8 percent of their contacts were from business. Females had a mean of 6.22 contacts and 55.55 percent of their contacts were from business.

With regard to years in business, 34.6 percent of respondents report having been in business for less than five years, with the remaining being divided among the categories of six to 10 years (24.3 percent), 11 to 15 years (19.6 percent), and 16 or more years (21.5 percent). Business experience for males and females were similar (see Table 2).

For each name listed, respondents were asked: 1) whether the person was related to them (kin), 2) the profession or occupation of the person, and 3) how they met or knew the person. To ensure consistency in responses, drop-down boxes were utilized in the survey instrument for both profession/occupation as well as how the respondent met the person. The professions available for selection included: marketing, strategy, law, bookkeeping, accounting, financing, banking, operations, manufacturing, logistics, purchasing, IT, secretarial/clerical, and other. Those choosing "other" were asked to enter a description.

A total of 159 of 685 contacts (23.2%) were labeled "other" with various descriptions entered for most. We examined the descriptions entered for "other," as well as the existing categories and made modifications. Four categories were added:

1) Professional (architect/ engineer/ designer), 2) Business owner/ entrepreneur, 3) HR/ Personnel and 4) Advisor (Insurance/ consultant/ security). In addition, those designated in the other category as lawyer were added to law, those designated as sales were added to marketing/sales, those designated as software development were added to IT, and venture capitalist was added to banker. With only two entries in bookkeeping, it was combined with secretarial/clerical which had one entry, thus eliminating one original category. This process left "other" with 116 items with descriptions such as homemaker, minister, healthcare, doctor, client, carpenter, dog walker, teacher, psych student, retired, journalist, friend, other and blank. After the category adjustments, we have sixteen categories (see Table 3); the most frequent occupations were marketing (127), other (116), strategy (115), finance (69), operations (56), law (52), IT (47) and accounting (43). These sixteen categories were used to evaluate heterogeneity of the CBDN.

Table 1: Respondent Contacts

	N	Minimum	Maximum	Mean	Std. Deviation
Number of Memberships	107	0	14	2.31	2.242
Total Contacts	107	1	10	6.40	2.642
Total Family and Friends	107	0	10	2.31	1.959
Business Organization Member	107	0	6	0.76	1.334
Current Work Relation	107	0	8	1.42	1.749
Previous Work Relation	107	0	8	0.93	1.334
Total Business Contacts	107	0	9	3.14	2.139
Percent Family and Friends	107	.00 %	100.00 %	35.68 %	26.94 %
Percent Business Related	107	.00 %	100.00 %	50.43 %	27.62 %
Percent Other	107	.00 %	71.43 %	13.89 %	18.31 %

Table 2: Respondent Business Experience: Males to Females

	Overall	Males (n=71)	Females (n=35)
Less than five years	34.6%	35.2%	31.4%
Six to ten years	24.3%	21.1%	31.4%
Eleven to fifteen years	19.6%	16.9%	25.7%
Sixteen or more years	21.5%	26.8%	11.4%

Likewise, respondents were asked to select from the following categories to describe where they met the listed person, namely:

family member, neighbor, long-time friend, colleague/employee, previous colleague/employee/employer, church/synagogue/mosque/temple, business membership organization, other organization, and other. Again, those choosing "other" were prompted to enter a description.

In examining the data, as expected, years in business is significantly (p=.057) related to the number of business organizational memberships (people join more groups over time). An unexpected result is that the number of years in business is not related to the total number of contacts. It may be that business owners recognize that maintaining contacts takes time, and thus prune their social networks, either purposefully or inadvertently, as new contacts are added; Staber and Aldrich (1995) suggest entrepreneurs often add or prune contacts based on an evaluation of the exchange relationship.

Hypothesis one predicts that participation in business membership organizations will lead to a larger overall CBDN while hypothesis two predicts that membership would be positively associated with a larger proportion of the CBDN deriving from business. We therefore examined differences between the two groups with regard to the demographics of their CBDNs. Specifically, we examined the size of the CBDN, the number of business related contacts and the number of different business functions represented in the CBDN (see Table 4 below).

Table 3: Occupations of CBDN

Category	Count	% of Total
Marketing	127	18.54%
Other	116	16.93%
Strategy	115	16.79%
Finance	69	10.07%
Operations	56	8.18%
Law	52	7.59%
IT	47	6.86%
Accounting	43	6.28%
Business owner/ entrepreneur	12	1.75%
Manufacturing	11	1.61%
Banking	10	1.46%
Professional (architect/ engineer/ designer)	9	1.31%
Advisor (Insurance/ consultant/ security)	6	0.88%
Logistics	5	0.73%
HR/Personnel	4	0.58%
Secretarial/ Clerical/ bookkeeping	3	0.44%
Totals	685	100.00%

Table 4: Core Business Discussion Network – All Respondents

Participate in Business Organizations		Number of Contacts	Number of Business Contacts	Number of Business Functions in Network	Number of Functions in Network (including Other)
No	*N*	26	26	26	26
	Mean	5.77	2.42	3.12	3.62
	Std. Dev.	2.717	1.528	1.505	1.627
	Range	1-10	0-6	0-5	1-6
Yes	*N*	81	81	81	81
	Mean	6.60	3.36	3.54	4.05
	Std. Dev.	2.601	2.232	1.509	1.515
	Range	2-10	0-9	1-8	1-9
	Significance two-sample, one tailed, t-test	.085	.025	.105	.107

For H1 to be supported, those respondents belonging to business membership organizations should possess a larger overall CBDN. As expected, the mean size of the CBDN is larger for those who belong to business membership organizations. Those with memberships have a range of 2-10 contacts with a mean of 6.60 and a standard deviation of 2.601, while those without such memberships have a range of 1-10 contacts with a mean of 5.77 and a standard deviation of 2.717. A two-sample *t*-test was run to determine the significance of these results. The difference in size of the total discussion network between the two groups—those that belong to business membership organizations and those who do not—approached, but did not reach significance ($p < .085$, *one tailed*). Therefore, Hypothesis one is not supported.

For H2 to be supported, those respondents belonging to business membership organizations should have a larger number of business contacts residing within their CBDN. The data show that the mean count of the number of business contacts in the CBDN is larger for those who belong to business membership organizations (see Table 4). Those with memberships have a range of 0-9 business contacts with a mean of 3.36 and a standard deviation of 2.232 while those without such memberships have a range of 0-6 business contacts with a mean of 2.42 and a standard deviation of 1.527. A two-sample *t*-test was run to determine the significance of this result. The difference in the number of business derived contacts in the discussion network between those that belong to business membership organizations and those who do not is significant ($p < .025$, *one tailed*). Therefore, Hypothesis two is supported. However, it must be noted that the change in the proportion of the overall CBDN deriving from business contacts was not significant.

The third hypothesis predicted that participation in business membership organizations would be positively associated with increased occupational diversity of the entrepreneur's CBDN, which is defined as the number of different

functions or professions that are represented in the entrepreneur's network. To test H3, we examined the difference in mean number of functions represented in the discussion network between the two groups. For H3 to be supported, respondents belonging to business membership organizations should have networks containing a significantly higher number of business functions than those who do not belong to such organizations. Results (see Table 4) indicate that those participating in business membership organizations had a mean of 3.54 business functions (or 4.05 functions if including "other") represented in their discussion network, as compared to a mean of 3.12 (or 3.62 functions if including "other") for those who did not participate in such organizations. A one tailed *t*-test showed the difference to be not significant ($p < .105$ or .107 if including "other"), thus H3 is not supported. With many studies pointing to voluntary groups being largely segregated by gender (e.g. J. M. McPherson & Smith-Lovin, 1986), and that gender segregation leads to unequal distribution of resources (Popielarz, 1999), we decided to run separate tests for males and females and were a bit surprised at the diverse results based on gender.

For males, joining business membership organizations was significantly related to a larger overall CBDN, a greater proportion of the CBDN deriving from business contacts, and a more heterogeneous CBDN (see Table 5), as predicted by our hypotheses. In contrast, for females (although keeping in mind that the number of females in this sample not joining business member organizations is small), joining business membership organizations was not significantly related to any of our measures (see Table 6). With the females in this study having as many, if not more, business contacts than their male counterparts, this result implies that these female business owners obtain their CBDN contacts from sources dissimilar to their male counterparts, and that for these female business owners, joining these groups is not a good source for picking up additional contacts for their CBDN.

CONCLUSIONS AND RECOMMENDATIONS

This research examined the core business discussion networks of business owners, comparing the size and heterogeneity of those who participate in business membership organizations to those who do not. In general, we found that number of years in business is related to the number of business organization's memberships, but not the total number of contacts in the core business discussion network. Specifically related to our hypotheses, belonging to business membership organizations was not significantly related to the total number of contacts in the core business discussion network or functional diversity, but was significantly related to the number of contacts derived from business contexts. That said, differing results were found for male and female business owners. Males who joined business membership organizations appeared to add significantly to their CBDN in terms of overall size, proportion of their CBDN derived from business contacts, and occupational diversity. Female business owners who joined business membership organizations obtained none of these things.

The result that those joining business membership organizations increased the size of the CBDN and the number of business contacts, but not the proportion of contacts drawn from business, could be interpreted as meaning that these business owners are looking to increase the reach of

their social network, while not limiting themselves to the sources of their contacts. Indeed, these business owners may be actively seeking valuable contacts from multiple sources, with business membership organizations being just one such source. The point is that these business owners may be seeking some balance in the makeup of their CBDN.

Results from this study shed light on how business membership organizations play a role in the formation and composition of an important part of an entrepreneurs' social network, the core business discussion network, and may provide differing strategies for male and female business owners seeking to build diverse networks. With research showing that greater size and heterogeneity of social networks are beneficial for firms (Kale, et al., 2000), it would appear that male business owners should endeavor to join one or more such organization while females may want to look elsewhere. However, Zhao and Aram (1995) argued that there is a cost to maintaining social ties (in terms of the owner's time) and, therefore, entrepreneurs need to be strategic in their building and use of such networks by balancing the potential benefits against the costs.

With the female business owners in this sample having a CBDN of similar size and occupational diversity as males, and not deriving these contacts from business member organizations, means that females are either joining dissimilar groups than their male counterparts, or joining these groups with either a different purpose or result. We should investigate further and understand the genesis of female business owners' social networks in general, and their CBDN in particular.

LIMITATIONS

Surveys are subject to common method bias, but nonetheless are an accepted methodology for collecting data. A limitation of this study is the potential non-response bias due to data being collected via an anonymous and voluntary online survey. While online surveys are not perfect, they do permit quick and accurate data collection from a wide range of respondents while simultaneously reducing the need for resources. In addition, while the sample consisted of business owners and other self-employed individuals, the relatively small sample size (*n=109*), and snowball methodology limit generalizability of the findings. Also, the small number of female business owners not belonging to business member organizations limits the ability to interpret finding for the female sub-set. Finally, with the data being collected in the mid-Atlantic region of the United States, it is possible that the results obtained reflect a local phenomenon with regard to social norms or the associations chosen.

FUTURE RESEARCH

As noted, few research studies focus on the differences in networking outcomes between those entrepreneurs who specifically join business membership organizations such as a trade association, chamber of commerce or rotary and those who do not. This is an important area of research, as there are many organizations that market themselves as being for networking purposes; it should be determined if these organizations provide the outcomes that entrepreneurs typically seek, that is, forming bonds with other business people for the purposes of discussing business issues and perhaps also in an effort to increase sales. The studies

that have looked at size and heterogeneity of social networks (Davis, et al., 2006) typically have used networking organizations as a sample frame, which obviously allows for no comparison to entrepreneurs who spurn these groups for one reason or another.

There is a difference between passive membership and active participation in membership organizations. Future studies should endeavor to uncover both intent and actual levels of participation in these organizations as some businesses may join organizations for benefits other than social networking, such as access to group health insurance, publications, training and other educational opportunities. These intentions, along with actual levels of participation, could then be compared to firm performance to help uncover any connections.

Another avenue of research could examine the intersection of organization type and geographic scope (for example, local rotary club versus regional chamber of commerce versus national trade association) with company size and market. It may be that particular types of membership organizations will benefit small versus regional, or national firms disproportionally.

With the divergent findings for male and female business owners with regard to the effects of joining business member organizations on their CBDN, future studies need to look at the possible disparate rationale for joining these groups, whether different groups are targeted, and whether gender discrimination or other factors are in play.

Finally, how do the recent developments in social media (i.e. Facebook, Twitter, LinkedIn) and technology (e.g. Skype) affect how business owners find and interact with members of their CBDN? Are CBDNs shrinking because we can now run general ideas by thousands? Conversely, are they growing because time and location are not as relevant to having business discussions? Is the composition of CBDNs changing because of who can now be included in discussions? Finally, how do these developments in social media and technology affect general business information collected by business owners?

As is well-known, there is voluminous research on networking among entrepreneurs. This work should continue, and should increasingly focus on outcomes, as well as the specifics of the types of networks and the ways one builds a network, that is, can one measure the direct effects of the different types of networking activities— participation in voluntary organizations, joining business clubs, purposeful versus serendipitous meetings, and so forth—on the constructs of network size, density, and heterogeneity, not to mention growth, profitability and overall survival of the business.

Table 5: Core Business Discussion Network – Male Respondents

Participate in Business Organizations		Number of Contacts	Number of Business Contacts	Number of Business Functions in Network	Number of Functions in Network (including Other)
No	*N*	18	18	18	18
	Mean	5.56	2.33	2.94	3.39
	Std. Dev.	2.791	1.534	1.392	1.501
	Range	1-10	0-5	1-5	1-6
Yes	*N*	53	53	53	53
	Mean	6.81	3.23	3.77	4.19
	Std. Dev.	2.675	2.292	1.476	1.532
	Range	2-10	0-9	1-8	2-9
	Significance two-sample, one tailed, t-test	.047	.065	.025	.030

Table 6 - Core Business Discussion Network – Females Respondents

Participate in Business Organizations		Number of Contacts	Number of Business Contacts	Number of Business Functions in Network	Number of Functions in Network (including Other)
No	*N*	8	8	8	8
	Mean	6.25	2.63	3.50	4.13
	Std. Dev.	2.659	1.598	1.773	1.885
	Range	2-10	1-6	0-5	1-6
Yes	*N*	28	28	28	28
	Mean	6.21	3.61	3.11	3.79
	Std. Dev.	2.455	2.132	1.499	1.475
	Range	2-10	0-8	1-6	1-6
	Significance two-sample, one tailed, t-test	.486	.119	.267	.297

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