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Business Incubator Explanations: Networking and Gender Differences

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ABSTRACT

Research investigating gender differences in small business performance has frequently shown women-owned businesses to be smaller in terms of sales, profits and number of employees (Cooper, Gimeno-Dascon, & Woo, 1994; Kalleberg & Leicht, 1991; Loscocco & Leicht, 1993; Watson & Robinson, 2003). One reason for this may be social networks that are not as diverse and useful as men's networks, making it more difficult for women to access external business resources. Business incubators attempt to enhance tenants' networks, and thus increase access to needed resources. In this theoretical paper, it is argued that even though all incubatees are likely to benefit from networking assistance, it may be especially useful for women with less *diverse networks. Suggestions for future research based on this conceptual framework are also presented.*

Keywords: Incubators, Women, Networks, Absorptive capacity

INTRODUCTION

In many countries, the vast majority of businesses are small or medium enterprises (OECD, 2003; Reijonen & Komppula, 2007). Many, however, fail to thrive or cease operations completely within the first few years (Monk, 2005). Just being small is a disadvantage given that firm size is associated with performance. Larger businesses tend to reap higher sales and profits (Alowaihan, 2004; Kalleberg & Leicht, 1991; Loscocco, Robinson, Hall, & Allen, 1991) as well as achieving higher growth in assets (Glancey, 1998). A variety of studies (Alowaihan, 2004; Cooper et al., 1994; Kalleberg & Leicht, 1991; Loscocco & Leicht, 1993; Morris, Miyasaki, Watters & Coombes, 2006; Watson & Robinson, 2003) have shown that women-owned businesses in particular tend to be smaller, earning lower sales and profits than men-owned businesses.

Although new small firms usually have very limited resources, contact with the right people can lead to additional resources and thus improve a company's chances of success in terms of survival and sales (Aldrich & Zimmer, 1986, 1987; Baum, Calabrese, & Silverman, 2000; Bruderl, Preisenorfer & Ziegler, 1992; Brush & Chaganti, 1999; Chandler & Hanks, 1998; Cooper, 2001; Dubini & Aldrich, 1991; Lerner, Brush, & Hisrich, 1997; Miller & Besser, 2005). Men have traditionally enjoyed stronger networking positions, thus putting women at a relative disadvantage and possibly leading to gender-based differences in business establishment and performance (Aldrich, 1989; Burke, Rothstein, & Bristor, 1995; Ibarra, 1993). Indeed, the period during which an entrepreneur starts a new business is a difficult time.

Business incubators have been given this title because they help start-ups with the process of growing a new-born business. Bergek and Norrman (2008) have categorized the services into three related resources: infrastructure, business support, and mediation. Infrastructure includes physical business facilities, office equipment, and other tangible items new business need, but cannot necessarily to buy on their own. Business support refers to the intangible resource of managerial advice and education that are equally essential to success. Mediation, which is assistance with networking, contributes to the other two resources as tenants are introduced to others outside the incubator who can provide physical resources or services. For example, if an incubator cannot provide specialized accounting advice, tenants can be introduced to outside accountants with the needed knowledge. According to an incubator manager in Pennsylvania, USA, an appointment with a popular service provider may take weeks to get, but he may be able to arrange a same day meeting because of his network ties to local professionals.

As business incubators help entrepreneurs of both genders access resources, make decisions, and develop strong networks (through mediation), gender differences in network quality and other problems may be reduced or even minimized. This paper therefore argues that incubators may be especially useful in assisting women entrepreneurs because incubators provide help in improving business networks and thus increasing chances of success. The following sections present an examination of the role of networking in small business performance, women's networking disadvantages, and how business incubators seek to improve the chances that start-ups will survive and thrive.

THE IMPORTANCE OF NETWORKING FOR NEW FIRMS

Networks are becoming increasingly important as they provide firms with access to markets, information, technology, and other resources

(Farr-Wharton & Brunetto, 2007; Greve, 1995; Gulati, Nohria & Zaheer, 2000; Hoang & Antoncic, 2003). Start-ups are especially dependent on their networks of personal relationships when making decisions and solving problems (Taylor & Thorpe, 2004). Successfully accessing and integrating external resources may thus create value for the firm (Achrol, 1997). New firms can increase their chances of survival and performance by establishing alliances and developing them into an effective network (Baum et al., 2000; Bruderl & Preisendorfer, 1998).

One result of networking can be the development of social capital, which essentially consists of the "resources individuals obtain from knowing others, being part of a network with them, or merely being known to them and having a good reputation" (Nahapiet & Ghoshal, 1998, p. 107). Networks thus provide not only access to the resources of direct contacts, but also indirect access to third parties and their resources. In certain industries, such as creative and professional business services, networks and contacts have been found to provide an indication of an entrepreneur's standing and reputation (Silversides, 2001). The people in a network and the relationships among them can therefore be very important to entrepreneurs, as shown in the following section.

Network Structure and Quality

Two primary characteristics of a network are its structure, meaning the people in the network, and its quality, which pertains to the strength of the relationships among the people in the network (Galunic & Moran, 1999; Granovetter, 1992; Hoang & Antoncic, 2003; Johannisson, 1987; Rindfleish & Moorman, 2002; Rothaermel, 2001; Zhao & Aram, 1995). Strong relationships are important to entrepreneurs because "higher levels of relational embeddedness facilitate the utilization of information" (Rindfleish & Moorman, 2002, p. 5). Other advantages such as increased trust and cooperation also flow from high quality networks (Larson, 1992; Zhao & Aram, 1995). People tend to meet more often and for longer periods of time with the people with whom they have strong ties. The frequency of contact between two people in a network has therefore been used as a measure of network strength because relationships develop over time with more frequent contact (Dyer & Singh 1998; Granovetter, 1992; Marsden & Campbell, 1984; Nahapiet & Ghoshal, 1998; Rindfleisch & Moorman, 2001, p. 3; Tsai & Sumantra, 1998; Uzzi, 1997; Zhao & Aram 1995). In his seminal work, Granovetter (1973) classified network ties as either weak or strong based on the frequency of contact because he determined that friendship and reciprocity were associated with how often people meet. Relationships with friends and family were thus categorized as strong ties because of frequent contact and emotional closeness. In contrast, ties among business associates, consultants, and other such contacts were classified as weak ties because of less frequent contact. However, Granovetter (1973, p. 106) contended that "the strength of weak ties" was very important in that "individuals with few weak ties will be deprived of information from distant parts of the social system and will be confined to the provincial news and views of their close friends." It is therefore important for small business owners to have contact with a diverse group of formal sources such as marketers, bankers, etc., in order to access information they cannot normally gain from informal sources such as friends and family.

Using data from a survey conducted by the Australian government, Watson (2007) organized relationships into categories based on formal sources (banks, business consultants, external accountants, industry associations, Small Business Development Corporation, solicitors/ lawyers, the tax office) and informal sources (family and friends, local businesses, others in the industry) of information. In Watson's study, bankers and accountants were the most common sources of information. However, others (Robinson & Stubberud, 2009; Smeltzer, Fann & Nikolesean, 1988) have shown that small business owners were more likely to use informal sources of advice such as family, friends, and professional acquaintances.

Small business owners who have networks with a variety of different types of contacts can more easily gain information to solve business development problems, thus increasing their prospects for survival and growth (Aldrich, 1989; Burt, 1982; Renzulli, Aldrich & Moody, 2000; Smeltzer, Van Hook & Hutt, 1991; Zhao & Aram, 1995). A large network does not necessarily ensure a broad range of contacts, but network size has been found to positively influence both business founding and young firm performance in that a higher number of contacts will likely to lead to more information (Aldrich, Reese & Dubini, 1989; Baum et al., 2001; Galunic & Moran, 1999; Greve, 1995; Rothaermel, 2001). Greve and Salaff (2003, p. 14) found that "the discussion networks with a large percentage of family members are significantly smaller." This would also indicate a low level of diversity.

There is, however, a practical limit to the size of a network that is useful. Deeds and Hill (1996) found a curvilinear relationship between network size and performance, suggesting that too many contacts is as bad as too few. Similarly, Watson (2007, p. 870) determined that to a certain extent, a greater number of contacts was beneficial, but that "accessing more than six networks during a year is likely to be counter-productive," as would "accessing any individual network on more than three occasions during a year." In the aforementioned study, Greve ad Salaff (2003, p. 14) also found that the percentage of family in the discussion network "had a significant negative relationship with the time spend on developing contacts." This is logical because family members are likely to be more readily accessible, thus requiring less time to contact them.

The size of a network, the diversity of network actors, and strength of relationships are all important, but still only show part of the overall picture. Although frequency of contact has often been used as an indicator of relationship strength, others (Frenzen & Nakamoto, 1993, p. 369; Zhao & Aram, 1995) contend that it is not sufficient as the sole measure of network quality because the opportunity to interact does not in itself guarantee the exchange of *useful* information. For example, a strong tie with a friend with whom an entrepreneur interacts frequently is not necessarily helpful in a business setting, whereas a weak tie with business consultant would be expected to yield more valuable information. Relationships among businesses, customers, suppliers, creditors, friends, family, and others parties will therefore have varying tie strengths depending not only upon the frequency level of contact, but also upon the reciprocity of the exchange (Aldrich & Zimmer, 1986; Zhao & Aram, 1995). Zhao and Aram (1995) therefore examined relationships according to the "amount of resources obtained" as well as frequency of contact.

Nebus (2006) contends that the most favorable situation is one in which social contacts such as friends and family also happen to be experts because although social contacts are easier to access and communicate with, experts are more likely to have valuable information. There is therefore a trade-off to be made between the quality of information and the cost (including time) of obtaining it (Haas & Hansen, 2005). Women have been found to network more (Rosa & Hamilton, 1994), but given that women tend to use their family and friends as their primary advisors, the information derived from their contacts may not be as useful in business settings as that yielded by men's networks, as will be addressed in the following section (Brush, 1997; Robinson & Stubberud, 2009).

Networking for Women and Men

In comparison to women, men have traditionally enjoyed stronger networking positions that are more beneficial to starting and management a new business (Aldrich, 1989; Burke et al., 1995; Ibarra, 1993). Most entrepreneurs start their businesses after they have worked for several years. This means that previous jobs and experiences influence network structure, especially in occupations still dominated by one sex (Aldrich, 1989).

Given that both men and women tend to interact with people of the similar gender (Brass, 1985; Burke et al., 1995; Sandberg, 2003), it is not surprising that female entrepreneurs typically have more females in their networks than do male entrepreneurs (Klyver & Terjesen, 2007; Renzulli et al., 2000), which can be a disadvantage given that people in positions to help small business are more often men (Aldrich, 1989; Renzulli et al., 2000; Smeltzer & Fann, 1989). Informal social networks (including volunteer associations) also often lead to business contacts and advisors, but are also often dominated by a single sex, thus limiting women's access to these networks (Aldrich, 1989; Brush, 1997; Fielden, Davidson, Dawe & Makin, 2003; McPherson & Smith-Lovin, 1986). The result is that "division and barriers within these spheres significantly limit the reach and diversity of women's networks" (Aldrich, 1989, p. 125).

Women tend to be especially adept at building informal networks with other women (Brass, 1985; Burke et al., 1995; Sandberg, 2003), but a lack of gender-diversity in social networks is more disadvantageous to women than to men because the people with important information, such as bankers, lawyers, and accountants, tend to be men (Aldrich, 1989; Renzulli et al., 2000; Smeltzer & Fann, 1989). Hisrich and Brush (1986) found that men claimed advisors such as lawyers and accountants among their most important supporters, with spouses second. In contrast, women reported that their spouses were their most important supporters, followed by close friends. In a related study (Smeltzer & Fann, 1989), women were more likely to use other women than other men as information sources. In a study of successful European business owners, Robinson and Stubberud (2009) found that women most often used friends and family as their primary source of advice, whereas men were more likely to use professional acquaintances as a source of advice. These results were similar to those of an American study (Renzulli et al., 2000). Considering the research on men's and women's networks, it is possible that the women business owners did not have as many professional acquaintances who could provide useful business advice, so they relied on friends and family members. Business incubators not only provide valuable business advice to their tenants, but also attempt to help them develop their social networks. While both men and women entrepreneurs can benefit from this mediation process, given the above disadvantages women face, women business owners are likely to benefit most from this service.

Business Incubators as a Networking Aid

Business incubators provide start-ups a nurturing environment, hands-on assistance, and a variety of other services during their first years of development. Incubators have been given this title because they foster the development of new companies, helping them survive the start-up period, when they are most vulnerable, and grow more quickly into successful firms (Finer & Holberton, 2002). While the primary purpose of an incubator is to help establish and accelerate the successful development of new businesses in a community (Finer & Holberton, 2002; Sherman & Chappell, 1998), incubators and their tenants can also create jobs and commercialize new technology, thus creating wealth and tax revenue while simultaneously revitalizing neighborhoods and empowering women, minorities, and low-income individuals to develop better lives for themselves (Boyd, 2006, p. 3). The following section provides additional background on business incubators, especially their role in improving tenants' networks and overall social capital.

Incubator Services

Bergek and Norrman (2008) categorized incubator services into three categories that include infrastructure, business support, and mediation. As the term suggests, mediation involves connecting incubator tenants with external resources such as lawyers, accountants, marketing professionals, bankers and investors (Bergek & Norrman, 2998). Infrastructure consists of the physical facilities and general administrative services. To many people, these facilities "are" the incubator, but the intangible services are highly important as they increase the probability of survival and improved entrepreneurial performance (Bollingtoft & Ulhoi, 2005; Hansen, Chesbrough, Nohria, & Sull, 2000; Lee, Lee & Pennings, 2001; Peters, Rice, & Sundararajan, 2004; Smilor, 1987). Past studies have concluded that 90% of business failure in the United States could be attributed to a lack of experience and management skills (Humphreys & McClung, 1991; Schwartz, 1976). The business support (managerial counseling) provided by incubators can substitute for direct experience and help business owners acquire useful knowledge and overcome deficiencies (Aldrich et al., 1989; Miller, Besser & Riibe, 2006/2007). In fact, Peters et al. (2004) state that the success of incubators relates mostly to the presence or absence of coaching and access to networks. However, because this is a personal, social process, a firm's network development will be influenced by the entrepreneur's own personality, traits, and attitudes, as network embeddedness does not simply occur naturally, but must be developed (Johannisson, 1987).

Networking in Incubators

Incubators "serve as a network node point for relationships with important external consultants such as tax accountants, patent and other lawyers, business consultants, marketing and public relation firms" (Lender, 2003, p. 6). Through this networking assistance, incubators provide access to critical resources such as knowledge, technology, financial capital, and both human and market resources, providing faster and better decision-making (Bergek & Norrman, 2008, p. 24; Hansen et al., 2000). Lender (2003) states that incubators embed start-up companies in networks much more quickly than would occur otherwise, which then allows new ventures to further develop their own set of relationships. With physical facilities and vital networks in place (or more easily developed), entrepreneurs can concentrate on growing their businesses.

Shahidi (in Lewis, 2001, p. 15) found that technology incubator tenants had more opportunities for networking than did similar non-incubated firms. These network ties were related to improved chances for obtaining equity capital, grants, and seed money. Likewise, Lichenstein (in Lewis, 2001, p. 14) found that the relationships that tenants developed because of their incubator residence led to increased sales, lower costs, enhanced capabilities, and overall reduced risk. On a similar note, the most frequently named benefit of incubator tenancy was the moral and psychological support incubatees received. Incubatees considered the relationships with other tenants as well as with the incubator manager and other individuals associated with the incubator to be highly valuable benefits.

Indeed, external networks are not the only ones that are useful to incubatees, as tenants share a unique relationship (Bollingtoft & Ulhoi, 2005; Brooks, 1986; McAdam & McAdam, 2006, Miller & Besser, 2005; Neck, Meyer, Coben, & Corbett, 2004). Sherman and Chappell (1998) found that almost one-fourth of incubated firms in their study had developed a subcontract or other arrangement with a fellow tenant, and one-sixth had collaborated with another company in the incubator. These relationships facilitate the move of knowledge and expertise between small start-ups, thereby stimulating fruitful relationships (Hansen et al, 2000). Information and resources exchanged among network members influence the firm's business strategy and actions, strengthening or enhancing the firm's effectiveness (Butler & Hansen, 1991). In fact, most small businesses responding to a small business survey (National Federation for Independent Business, 2003) indicated that they initially patterned themselves after other businesses.

Incubator tenants observe each other and pick up strategies that generate success (Sevon, 1996). Network ties, therefore, seem to play a key role in facilitating the design and implementation of firm growth strategies and entrepreneurial performance (McAdam & McAdam 2006).

Issues in Incubator Networking

Although the potential benefits of networking are clear, they are not automatically guaranteed by simply being located in an incubator (Johannison, 1987). Hansen et al. (2000, p. 75) state that without a focus on networking, an incubator is “little more than a place to set up shop.” Entrepreneurs may hold the attitude that they are in the incubator to run their own businesses and are too busy working to socialize with other tenants. This may be related to the layout and operation of some incubators. Rather than promoting networking, some layouts encourage entrepreneurs to hide in their offices rather than to interact with other incubatees. Johannisson (1987) showed that incubator tenants can be slow to share ideas and there are often no mechanisms to encourage interaction. If the incubator itself does not promote it, incubatees themselves must take a proactive stance toward networking due to the fact that all entrepreneurs are busy and time is a crucial resource for everyone.

Given the potential, but not necessarily realized, benefits of being in an incubator, Hansen et al. (2000) state that incubator tenancy is not right for everyone. Entrepreneurs who already have “strong personal connections to the right industry players” or do not need to move quickly may not need the services of a networked incubator (Hansen et al., 2000, p. 81). Women, however, are less likely than men to have these strong personal connections (Aldrich, 1989; Brush, 1997). For them, incubator tenancy may be particularly effective because an incubator can link them with lawyers, accountants, and other formal sources of information, thus increasing the diversity of their networks.

This is particularly important for women, whose networks are less likely to be diverse (Aldrich, 1989; Brush, 1997), consisting more of personal contacts such as friends and family rather than formal sources. Lower quality networks with less varied structure can make it more difficult for them to access business advisors (Aldrich, 1989; Carter & Shaw, 2006; Carter, Williams, & Reynolds, 1997; Miller et al., 2006/2007). With the help of an incubator, women's networks may become as diverse as men's, equalizing this disparity. In the following section, five propositions based on this theoretical framework are presented.

PROPOSITIONS AND SUGGESTIONS FOR FUTURE RESEARCH

Based upon the previously presented theory, networks are considered an important factor in small business performance because they provide access to external resources (Granovetter, 1973; Hoang & Antoncic, 2003; Jarillo, 1988). However, due to factors such as sex-segregation in jobs, formal associations, and informal networks, women are often at a disadvantage when it comes to the range (diversity) of contacts within in their networks and the quality of their networks based on usefulness to starting a business (Aldrich, 1989; Hisrich & Brush, 1986; McPherson & Smith-Lovin, 1986). This leads to the proposition:

P1a: Organizational networks of men-owned businesses that have not received incubator support will have greater diversity than those of women-owned businesses that have not been incubated.

P1b: Organizational networks of men-owned businesses that have not received incubator support will be of higher quality than those of women-owned businesses that have not been incubated.

Business incubators are in themselves a special kind of network in that they link tenants with useful resources, advisors, etc. This can help incubatees increase the diversity of people in their networks. It is therefore expected that the networks of entrepreneurs that are/were in incubators will have a greater diversity and be of higher quality than those that have not benefited from this type of support. It is proposed that this will be especially true for women, resulting in a minimization, if not complete elimination, of gender differences in network range among incubator tenants. Therefore, the following propositions are presented:

P2a: Organizational networks of women-owned businesses that have received incubator support will have greater diversity than those of women-owned businesses that have not been incubated.

P2b: Organizational networks of women-owned businesses that have received incubator support will be of higher quality than those of women-owned businesses that have not been incubated.

P3a: Organizational networks of men-owned businesses that have received incubator support will have greater diversity than those of men-owned businesses that have not been incubated.

P3b: Organizational networks of men-owned businesses that have received incubator support will be of higher quality than those of men-owned businesses that have not been incubated.

P4a: There will be no significant difference in the organizational network diversity of women- and men-owned firms that have received incubator support.

P4b: There will be no significant difference in the organizational network quality of women- and men-owned firms that have received incubator support.

Following the work of Zhao and Aram (1995), it can be further expected that greater network diversity will be associated with higher performance, leading to the proposition:

P5a: Organizational network diversity will be positively correlated with business performance.

P5b: Organizational network quality will be positively correlated with business performance.

Based on the literature, we propose that differences in women's business performance may be due, at least in part, to less-useful social networks. As business incubators help women develop better social networks and management skills, their business performance will be more similar to men's. Thus, business incubators can act as an equalizer.

CONCLUSION

Entrepreneurship is important to the economy and society, but the road to small business success is not an easy one. Under the best conditions, new entrepreneurs are likely to find the process difficult, challenging, and consuming of time and energy, and many new small businesses fail to survive and thrive (Cooper et al., 1994; Kalleberg & Leicht, 1991; Loscocco & Leicht, 1993; Watson & Robinson, 2003). In addition to the set-up costs for physical resources, vital intangible resources can also be expensive, if they can be obtained at all. For those who do not have their own knowledge base and experience to draw from, external sources of knowledge are crucial. Worldwide, approximately one-third of all entrepreneurs are women (www. go4funding.com). The Norwegian government, among others, has established a goal that women will represent at least 40% of all entrepreneurs by 2013 (Handlingsplan for meir entrepreneørskap blant kvinner). However, many women may refrain from starting their own businesses because they do not have diverse, high quality (useful) networks that can help them in the difficult process of establishing a new firm.

Business incubators attempt to increase the chances that new small firms survive the birth stage and grow into self-sustaining businesses that contribute to their local communities. Incubator support can therefore be an important tool to encourage women to start businesses and improve performance of small businesses. This paper has shown, through a theoretical approach, which both women and men entrepreneurs whose start-ups receive incubator support are expected to reap better performance from their businesses than those that have not been incubated. It is further proposed that women in particular will benefit from this type of support as incubators equalize the diversity of networks of women- and men-owned businesses, thus minimizing or eliminating this gender-based difference. Considering the value placed on gender equality, as well as the economic importance of small business, it is imperative to determine if, and in what way, business incubators help entrepreneurs (especially women) solve the problems they face in developing their businesses and thus improve their performance.

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