

**DO STRATEGIC BUSINESS NETWORKS BENEFIT
MALE- AND FEMALE-OWNED SMALL-COMMUNITY BUSINESSES?**

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ABSTRACT

This research, based on social capital and strategic networking theory, explored small business owners' use of formal networking as a strategy for conducting business in competitive markets. Data were collected from 285 men and 111 women, who operated small businesses in small communities and were members of one of 29 business networks. Findings, based on hierarchical regression, suggest there are descriptive differences among male and female small business owners such as the business size and years of ownership that should be further explored. However, no differences were found for perceived network benefits based on gender, size of business, or years of ownership. Variables central to social capital and strategic network theory held a positive effect on network benefits ($R^2 = .580$), suggesting strategic business networks do benefit both male- and female-owned small community businesses. Understanding how small community businesses operate and interact in network organizations has implications for business improvement and, ultimately, small community development.

INTRODUCTION

Size does matter when making strategic decisions about growth, transition, or business continuance (Gilinsky, Stanny, McCline, & Eyler, 2001). Most U.S. business organizations are small and autonomous and consequently exhibit a high dissolution rate. Dissolution rates have been higher for establishments aged 10 years or more and operating with fewer than 20 employees, than for newly created organizations with greater than 20 employees

(Aldrich & Auster, 1986). Organizations face both internal and external obstacles that make survival difficult. Limited investigations of small businesses in small or rural communities have been conducted showing that scarcity of resources and barriers generated by fierce competition further jeopardize business survival (Bhat & Fox, 1996). Small populations and often remote locations can translate into limited local demand and create difficulties for achieving economies of scale or critical mass (Henderson, 2002b). McDaniel (2001) found

that small firms in small U.S. communities today lag behind their urban counterparts and may not be performing as well as they could. He suggests that developing alliances or networks with other small businesses may be useful for overcoming some of these challenges facing rural or small communities.

More and more women are turning to self-employment in both rural and urban areas of the U.S. Jackson (1998) reported that 27 percent of women-initiated firms were motivated by glass-ceiling barriers to advancement or a lack of challenge in existing careers. In research conducted by Lichter (1989), women in rural areas were unemployed or under-employed at a rate 42 percent higher than for men in rural areas and at a rate of 38 percent higher than for women in urban areas. Indeed, the number of female-owned businesses across the U.S., particularly in the small business sector, has grown at nearly twice the rate of all firms established between 1997 and 2004 (Morisseau-Kuni, 2004; CWBR, 2005). In a recently issued report based on the 2002 U.S. Economic Census, women owned nearly 6.5 million non-farm businesses or 30 percent of all U.S. businesses (US Census Bureau, 2006).

Traditionally, female-owned businesses are smaller in number of employees and sales volume than male-owned businesses which may further compound women's ability to successfully operate small community businesses (Brush & Hisrich, 1991, Marlow & Patton, 2005). Evidence also suggests that female-owned businesses are less successful than male-owned businesses when success is measured in terms of earnings (Weiler & Bernasek, 2001). Some of the greatest challenges facing women who desire to start or grow a business are access to strategic advice, creditors, and suppliers (Marlow & Patton, 2005). Membership and participation in a business or trade network can offer opportunities for women to make contacts that may not otherwise form. In particular,

Davis and Aldrich (2000) found that women increased their access to expert advice when they moved beyond social networks of family and friends for business ideas and sought memberships in strategic organizations such as business networks. Expert advice according to Aldrich, Reese, and Dubini (1989) can substitute for direct experience and can function as a means of acquiring tacit knowledge shared by other business owners in the industry. A far better understanding of gender differences among small business owners and the potential of network membership is required for assisting or guiding small business growth and development, particularly in small community markets.

A poll undertaken by the National Federation of Independent Business (Weaver & Dickson, 2004) indicated that 63 percent of all small businesses have participated in some form of an alliance. The NFIB report indicates that these small business owners see their alliances as profitable and enhancing their competitive abilities. Increasingly, U.S. firms that share similarity in environmental uncertainty are turning to collective action (Wally & Jain, 2001). One strategy for success for small business owners may therefore involve formation of internal and external linkages for achieving both social and economic benefits (Perry, 1999; Postma & Zwart, 2001).

Pyke and Sengenberger call attention to a related aspect of the small-size dilemma that is, perhaps, more pronounced for small community businesses. They state, "The biggest problem facing small businesses is not being small, it's being lonely," (1992, p. 11). The perspective taken in this current study focuses on the small business owner less as an autonomous entity who operates as a solitary decision-maker but more as a purposefully social character who is embedded in a variety of networks that facilitate or constrain linkages. We focus particularly on those networks linking existing small businesses to resources and

opportunities.

Further, we center our inquiry on small business owners, operating in small communities, who have paid membership dues to a formal network organization as a strategy for facilitating business success. *Small businesses* are defined here as having fewer than 20 employees and generating less than \$5 million in annual sales. *Small communities*, for the purposes of this study, have less than 10,000 in population. A *network* is defined as a group of businesses joined in a voluntary formal organization (i.e., the networks contain officers, by-laws, dues, regular meetings) of indefinite duration having as its primary goal the enhancement of members' business success. In our approach, *strategy* is conceived of as the long-term direction of a firm that results from interactions with suppliers, customers, government, and fellow members of private organizations such as business networks. We see network membership as a strategic action taken to enhance firm performance. The two general questions guiding the research are: 1) whether linkages within formal business networks are perceived as providing benefits to small business owners; and 2) whether there are differences in the types or levels of benefits, cooperation, or network impact perceived by male versus female business owners in a small community?

NETWORKING AND GENDER DIFFERENCES IN CONDUCTING BUSINESS

Social Capital and Strategic Networking

Paying membership dues to an association or alliance does not alone guarantee that networking will take place or that strong connections among members will form. Hence, all associations are not networks. However, when even weak ties or marginal connections do form, they can serve as a bridge to link people to resources in a system (Burt, 1992; Granovetter, 1973). Often when

self-help books or business development agencies mention networking, they are referring to the weak ties that can be created through activities such as making contacts with other business people, attending meetings, and finding other ways to strategically connect with a number of potentially helpful people. In other words, the strong ties with family and friends can provide a buffer against the consequences of life, but weak ties can function as conduits to business opportunities and resources (Burt, 1992; Crowell, 2003; Granovetter, 1973).

Social capital is defined as relationships characterized by trust, mutual understandings, reciprocity, and conformity to norms and culturally shared meaning (Nahapiet & Ghoshal, 1998; Portes, 1995). Social capital refers to "the ability of actors to secure benefits by virtue of membership in social networks or other social structures" (Portes, 1998, p. 6). When resources directly under the small business owner's control are insufficient to ensure growth or survival, owners often supplement resources by using their social capital for obtaining needed resources such as financing or advice.

The term social capital then simply captures the concept that group involvement and participation can have affirmative consequences for the individual as well as the community. In one of the earliest analyses of social capital, Bourdieu defined this notion as "the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognitions" (1986, p. 248). Thus, the concept of continued participation in groups was predicated on the generation of benefits or profits accrued from membership. Several scholars emphasize the connections among social capital, economic capital, and human capital (Bourdieu, 1986; Coleman 1988; Portes, 1998). Portes indicated, "Whereas economic capital is in people's bank accounts and human capital is inside their heads, social capital inheres in

the structure of their relationships" (1998, p. 7).

The extensive literature on social capital has been classified into three general outcome domains. Social capital can be used to control deviance, provide support for family and children, and facilitate collective action in communities (Portes, 1998, 2000). It is the third function that we consider in the context of formal business networks, thus, examining the overlap of social and business networks. Granovetter's term "strength of weak ties" is in reference to the power of relationships beyond circles of family and friends (1974). He argued that economic exchange is largely embedded in networks of personal relationships rather than in transactions between individuals unknown to each other (1985). Following this logic, small business owners seeking to reduce risks and increase opportunities will establish business relationships with each other based on prior interactions that are perhaps social as well as business-based. These relations between businesses, customers, suppliers, creditors, and others establish varying tie strengths depending upon the level, frequency, and reciprocity of the exchange (Aldrich and Zimmer, 1986).

The concept of a social network has a long and well-developed history. Social networking can be thought of as a useful business strategy or action taken to improve the economic status of the business. Jarillo (1988) was among the first to outline the fit of networks as a construct within the basic paradigm of competitive strategy. He found evidence in work by Thorelli (1986) that networks operate between markets and hierarchies, meaning that the organization of economic exchange is not limited to markets and hierarchies but includes a middle ground of networks. Johannisson, Ramirez-Pasillas, and Karlsson (2002) also see networks as complex arrays of relationships between firms. In a strategic approach to networking, relationships are investments in building and sustaining the network. Network continuance

is seen as a means for obtaining the most efficient organizational arrangement for competing in a chosen market (Jarillo & Ricart, 1987.) The addition of the word strategic to networks implies, according to Jarillo, "long term purposeful arrangements among distinct but related for-profit organizations that allow those firms in them to gain or sustain competitive advantage vis-à-vis their competitors outside the network" (1988, p 32). In other words, strategic networking arrangements rest upon cooperative behavior among independent businesses as a means of competing in decidedly aggressive markets and in the face of environmental uncertainty.

Strategic networking theory then, like social capital theory, focuses on the development of cooperative behavior but, in addition, views networking as a tactical stance in competitive markets (Borch & Huse, 1993; Hoang & Antoncic, 2003; Jarillo & Ricart, 1987). Butler and Hansen (1991) suggested strategic networking as most valuable for established businesses interested in growth and profit, and Aldrich and Zimmer (1986) recommended drawing on network connections during formation of a new business. The premise of strategic networking is that individuals in trusting relationships will share resources, insights, and information that will generate advantages to their business (Jarillo, 1988; Wollebaek & Selle, 2002). This collaboration provides opportunities and competitive advantages particularly in turbulent markets (Svendsen, 1998). Butler and Hansen (1991) found that strategic networks often evolve from social networks as entrepreneurs identified opportunities arising from shared marketing experiences.

Past Evidence of Network Benefits and Costs

Business networks are believed to be responsible for strengthening small business members in the industrial districts in Northern Italy (Piore & Sable, 1984) and

among family and ethnic networks evidenced among New York Jewish diamond merchants (Granovetter, 1985), Chinese businesses in Canada (Chu, 1996), and the Cuban American business nexus in South Florida (Portes & Sensenbrenner, 1993). Networked businesses tend to collaborate to compete in the marketplace by sharing intelligence about their industry environment, which can expedite diffusion and adoption of new technology and improve operations of small and medium-sized enterprises (Solymosy, 2000). In reviewing several studies of U.S. networks, Malecki and Tootle (1996) conclude that networks provide a valuable source of business innovation, and others have found that networks helped the operators secure technology as well as marketing skill and capital (Baird, Lyles, & Oris, 1993; Carter, Brush, Green, Gatewood, & Hart, 2003; Uzzi, 1999). Other outcomes from networking include higher probabilities for survival (Pennings, Lee, & van Wittelosstujin, 1998), higher export sales (Perry, 1999), and significant contributions to local economic growth. Malecki and Tootle (1996) found networked businesses were more likely than non-networked to purchase from local suppliers and service providers and to subcontract with local businesses; thus, networking within or across communities may improve the local value gained from firm level economic activity and enhance the local tax base.

With these prospective benefits derived from networking, why would a small business decide against joining a formal network? Negative consequences can be connected to aspects inherent in social capital. Portes cites four "costs" or downsides of social capital: "exclusion of outsiders, excess claims on group members, restrictions on individual freedoms, and downward leveling norms" (1998, p. 15). Five explanations as to why businesses do not belong to a network or why they had recently terminated their network membership have been identified in the business literature: lack of knowledge of

the benefits; no existence of an appropriate network; lack of resource slack (employees, revenue, or time) to invest in network membership; the conviction that costs and risks outweigh the benefits; and the tendency of business owners to "go it alone" (Bureau of Industry Economics, 1995; Curran, Blackburn, & Black, S, 1993; Malecki & Tootle, 1996). A recent exploration of the reasons why businesses do not belong to a network was also conducted by Miller and Besser (2005). These findings support earlier research but add that networked businesses differ from non networked businesses in reporting higher levels of success in achieving business goals and greater gross sales. To further elaborate the role of strategic networking on perceptions of business success, we propose to test the following hypotheses:

H1: Networked small business owners will perceive significant benefits from membership in formal business networks.

H2: Benefits perceived from membership in formal business networks with other independent small business owners will be influenced by the owner's perceived level of:

- a. cooperation among firm members, and*
- b. the impact of the network linkages on small firm's activities.*

Women Business Owners and Networking

Though growing in numbers, the sales and income of female-owned businesses are significantly lower than their male counterparts (U.S. Small Business Administration, 2001) even when operating in the same industry (Loscocco, Robinson, Hall, & Allen, 1991). Women primarily own firms in a limited number of industries, just as the women in the labor force are concentrated in a relatively small number of occupations (Hisrich, 1989; Kalleberg &

Leicht, 1991; Loscocco et al., 1991; CWBR, 2005). Research on business ownership suggests that women often operate smaller, low-growth, and low profit businesses because they have greater aversion to risk than male operators (Brown & Segal, 1989; Collett & Aubry, 1990). This quality is frequently combined with a stronger nurturing-based need or the desire to purposely balance work and family goals (Aldrich, 1989; Coleman, 2002; Loscocco et al, 1991). Research regarding rural versus urban gender differences substantiates that male-owned businesses are favored in rural areas (Bird, Sapp & Lee, 2001). Aldrich, Reese and Dubini (1989) suggested that the basis for differences between male- and female-operated businesses are the organization or structures of opportunities and constants open (or closed) to each. They proposed that women owners navigate in different social networks than their male counterparts, with potential consequences.

For many years business networks have played an important role in socializing individuals into a profession, assimilating them into the respective culture, and facilitating success. Numerous empirical studies of gender differences in "social" networking have been conducted in the last twenty years (see Aldrich, Resse, & Dubini, 1989; McGuire, 2000; Weiler & Bernasek, 2001), but only recently have we begun to examine differences in how gender impacts network support (Cowell, 2003; Ibarra, 1993, 1997). Women may not network as successfully as men and may be missing opportunities to strategically compete in their markets (Aldrich, 1989, Greene, Brush, Hart & Saporito, 1999). Evidence suggests that when women do cross gender barriers in networking, they develop ties or bridges that foster social as well as economic capital (Carter et al., 2003). Studies examining the success of female small business entrepreneurs suggest that informational and social support resources provided by networks assist in the startup and early phases of business development (Renzulli,

Aldrich, & Moody, 2000). No prior research has been found that examines gender differences among strategically networked small business owners operating in small communities. Therefore, in order to expand the knowledge base regarding the impact of gender on networking, we posit the following hypothesis:

- H3: There will be significant differences between male and female business owners in their perceived level of :*
- a. cooperation among network members;*
 - b. impact of the network on the small firm's activities; and*
 - c. the benefits derived from network.*

METHODOLOGY

Network Sampling Strategy

For this study, business networks were operationally defined as long term, formal organizations whose goals include the success of member businesses. We have limited the scope of our investigation to formal business networks because a study of network relationships could be extended and include an indefinite number of linkages (Aldrich & Zimmer, 1986). Formal networks, when compared with informal networks, tend to be more structured and have clear, rather than fluid, boundaries with identifiable membership (McGuire, 2000). In organizational research, a formal or prescribed network is composed of specified relationships of functionally defined groups who interact to accomplish an organizationally selected task (Ibarra, 1993). Two kinds of business networks in four largely rural states (Iowa, Minnesota, Nebraska, and Ohio), are of interest in this study. These are state or local industry associations such as nursing home associations, specialty meat producers, and category retailers; and community based business associations like chambers of commerce, downtown merchants'

associations, or tourist promotion associations. Networks in our study had to be composed primarily of independent businesses in small towns and rural areas.

A sampling frame of 797 industry and community business associations matching the criteria was created by utilizing directories of chambers of commerce, association directories, and scanning the internet for network web pages. The sampling frame was stratified by state, type (industry verses community), association age, and, for community networks, by population size of town (500 to 3,500 and 3,501 to 10,000). The selection of the industry network sample was a combination of systematic random sampling and purposive sampling. The goal was to have maximum variation across industries and to match industry networks across states. Thus, if the Nebraska Association of Bread Bakers was selected using systematic random sampling within the service industry stratum, attempts were made to locate a similar industry association in Iowa, Minnesota, or Ohio to include in the sample.

Seventy-seven networks were selected as part of the final sample. Network directors were first mailed a letter that was followed by a telephone call requesting participation in the study via a telephone interview. Among the selected sample of 77 network directors, 29 agreed to supply member lists and other network documents. Once we eliminated the directors whom we could not reach, the sample size was 60 and the cooperation rate was 48.3 percent. The network types included in the sample were four chambers of commerce and six other community business networks along with nineteen industry networks distributed as follows: four in agriculture; two in construction; two in finance, real estate, and insurance; three in manufacturing; three in retail; two in business services; two in personal services; and one home-based business network. Among the full sample of community and industry networks, eleven

are in Iowa, five in Minnesota, six in Nebraska, and seven in Ohio.

Network Member Sampling Strategy

To meet the goal of 75 interviews from each network, a systematic random sampling method was used to select 90 members from each network. In networks with fewer than 90 members, all were included in the sample. Network sizes ranged from 6 to 3000 (average, 366; median, 200). Selected members were sent a letter describing the research and requesting their participation in a telephone interview. Interviews, conducted by computer-assisted telephone interviewers, were closed-ended and lasted approximately 25 minutes. The sample size was 2071 members with 176 who did not fit the parameters of the study, 466 who could not be reached or an interview could not be scheduled during the study period, 283 who refused to participate, 23 who partially completed the interview, and 1122 who completed full interviews. The cooperation rate when the partials, the ineligible, and the could-not-be-reached were subtracted from the original sample size, was 79.8 percent.

A sub-sample of 396 respondents who owned smaller businesses were selected from the original 1,122 participants for this analysis. The criteria for selection of small businesses was having fewer than 20 employees, and less than \$5 million in annual sales. Among this sub-sample of network members, 111 were female-owned businesses and 285 were male-owned businesses. All 29 networks previously described were represented in this sub-sample.

Measures

Prior to development of the questionnaire, a pilot study was conducted with three network directors and a small number of members from each of three networks. These network members and directors were not participants in the quantitative study, but

the interviews did provide a starting point for development of pertinent questions.

Network and business management literature were then reviewed for existing Likert-type scale items that had potential for operationalizing concepts of perceived "cooperation" among network members, "impact" of the network on business activities, and perceived network "benefits." Where no existing questions were discovered in the literature, items were developed from the pilot interviews or modified from prior research. A "cooperation" scale was developed by modifying items from Aldrich, Rosen and Woodward (1987), Johannisson, (1990), and from Human and Provan (1986). Items were also borrowed and modified from Sharma, Netemeyer, and Mahanjan's (1990) EXCEL scale, with additional items adopted from Mowday, Steers, and Porter's (1979) scale of organizational commitment (see Table 1 for specific questions and scale information). Frequency and type of cooperation among the network members were measured using twelve five-point Likert-type questions with "1" indicating the lowest frequency and "5" indicating the highest frequency for twelve potential network activities. An additional five-point Likert-like question asked how well the network served as a source of information.

Business "impact" items were based on Mulford, Shrader, and Hansen's (1988) and Miller and Besser's (2000) research on small business activities. Seventeen potential impacts from networking were assessed using a five-point Likert-like scale. Questions asked small business owners to what degree had specific activities relative to the individual's business been impacted by their particular network. Items relating to 'impacts' on the small business owner, such as reducing personal stress, providing opportunities for personal socializing, and providing personal emotional support were incorporated as well as more business-based impacts such as accessing financial

resources, training for employees, improving quality, and marketing (see Table 1 for complete scale).

Interspersed with the cooperation and the impact questions, were five questions developed for measuring facets of perceived benefits from networking. Benefits of networking items were derived from Hays, Hays, DeVille, and Mulhall (2000) and from items based on concepts from Portes and Sensenbrenner's (1993) work. Again five-point Likert-type scale items were used, but questions ranged from very general -- asking, for example, if benefits provided have improved over the years or the owner's degree of satisfaction with the network in general -- to more specific -- asking if the owner had an increased awareness of competitive capabilities, elevated status with vendors or other businesses, or if they were more optimistic about the future of their business (see Table 1).

Principal components factor analysis was performed on the items used in the three scales with all item factor loadings at or above .40, with the majority factor loadings at or above .67. The scales were pilot tested with thirty small business network members from three networks that were not included in the study. Scale reliability (Cronbach's alpha) was examined for male and female small business owners and ranged from .80 to .93 (see Table 1 for scale information).

ANALYSIS AND RESULTS

The sample consisted of 396 small business operators who had owned their businesses an average of 13.97 years, with the average age of the business at 32 years. The businesses were largely structured as sole proprietorships (48%) or corporations (47.5%), with few partnerships (5%). The average number of employees was 4.47, with 16.9 percent of the businesses having no employees other than the owner. The gross sales averaged \$461,127 for the year 2002. Overall, these owners characterized

Table 1 - Scale Information for Small Business Owners (Females =111, Males = 285)

Item Information	Cronbach's Alpha Scale Reliability (SR)	SR F	SR M	Mean F	Mean M
Cooperation – 13 items	.809	.815	.807	2.08*	2.26
Measured using Likert-type scales with '1' indicating a lower degree or never and '5' indicating a higher degree or very often.					
How often have you:					
Q30 Shared resources				2.59	2.42
Q31 Referred customers to an association member				3.17	2.96*
Q32 Visited the business of another association member				2.82	3.00
Q33 Worked together on a large or complicated project				2.20	2.27
Q34 Purchased raw material, supplies, or equipment together				1.40*	1.64
Q35 Exchanged or shared employees				1.24	1.36
Q36. Shared the cost of training employees				1.10*	1.43
Q37. Shared the cost of consultants				1.20*	1.45
Q38. Worked together to influence legislation				1.84*	2.49*
Q39. Shared information about new techniques, suppliers, customers, or technology.				2.81	2.87
Q40 Worked together for marketing or promotion				2.44	2.43
Q41 Developed a new product or service with another business				1.27*	1.49
Q64 The association is a good source of information.				3.84	3.98
Impact - 17 Items	.936	.944	.930	2.28	2.35
Measured using Likert-type scales with '1' indicating a lower degree or strongly disagree to '5' indicating a higher degree or strongly agree, please indicate how much of an impact the association has had on your business for the following:					
Q78 Accessing financial resources				1.77	1.73
Q79 Securing new overseas customers or suppliers				1.20	1.14
Q80 Reducing personal stress				1.97	1.96
Q81 Securing new domestic customers or suppliers				2.15	2.11
Q82 Enhancing market knowledge				2.91	2.90
Q83 Improving management skills				2.44	2.62
Q84 Improving work practices or productivity				2.43	2.58
Q85 Training for employees				1.83*	2.34*
Q86 Personal emotional support				2.46	2.22
Q87 Greater access to technology				2.40	2.69
Q88 Contributing to service or product development				2.25	2.41
Q89 Accessing additional production facilities				1.70	1.70
Q90 Improving delivery or distribution				1.74	1.83
Q91 Improving quality				2.43	2.54
Q92 Improving marketing				2.87	2.66
Q93 Influencing favorable legislation				2.96*	3.38*
Q94 Providing opportunities for personal socializing				2.95	3.05
Benefits 5 items	.843	.877	.827	3.31	3.40
Q63 The benefits provided by this association have consistently improved over the years				3.35	3.57
Q71 I have an increased awareness of my business competitive capabilities as a result of exchanging ideas with network members.				3.35	3.38

(Table 1 – cont'd)

Q73 I am more optimistic about the future of my business since I joined this association.	3.28	3.30
Q75 Membership in ___ elevates my status with vendors or other businesses.	3.10	3.14
Q95 Indicate your degree of satisfaction with the network in general.	3.42	3.63

* Significant difference between male and female business owners, $p < .05$

^a Significant differences with recoded responses (1 and 2 as Low, and 4 and 5 as High)

themselves as network members for the majority of their years in operation, considered their business to be successful, and planned to expand the business in the near future.

A comparison of the female and male small business owners using independent *t*-tests and Chi-Square analysis, suggested differences between the 111 female and 285 male participants (see Table 2). The significant differences corresponded with prior research findings in that female-owned businesses were newer, had fewer employees, and generated less gross sales than male-owned businesses. Women owners were similar in race to their male counterparts but were less likely to have an advanced degree beyond the bachelors. Women owned their businesses a shorter period of time and operated more sole proprietorships; whereas, a larger portion of male business owners formed corporations. Approximately two-thirds of the male-owned businesses were considered family businesses; whereas one-half of the female-owned businesses were family-owned. There were no significant differences in the future plans for the businesses of men and women, with most planning on expansion. There were no significant differences in degree of perceived business success between male and female business owners with a mean score of 7.0 on a 10 point scale.

In terms of network membership characteristics, it follows that a shorter time of business ownership would translate into a shorter time as a network member and that fewer years of membership would suggest less time to develop relationships or weak

ties within the network. There were, however, no significant differences between women and men on the level of involvement in network activities (2.72 and 2.62, respectively, on a 5-point scale), and the degree of satisfaction with the network (3.42 and 3.63, respectively, on a 5-point scale). Both female and male network members described their involvement in network meetings to be at a medium level, suggesting that, in addition to paying their dues, they interacted with other network members forming a variety of relationships that generated a fairly high level of satisfaction with the network in general.

Addressing the Hypotheses

Prior to analyzing business owners' responses, assessment was performed for all items and scales used to provide information about how membership in a formal network was perceived by operators of small businesses in small communities and whether there were gender differences. Individual scale and items means are provided for the group and by gender in Table 1 with significant differences using independent *t*-tests marked by asterisks. Overall, no significant gender differences were found in terms of measures of scale reliabilities with item scales performing at levels exceeding criteria established by Nunnally (1978).

We present the small business owners' responses to items and summed scales developed to measure three variables: benefits from network membership, cooperation among network members, and

Table 2 - Means, Standard Deviations, and Percentages of Selected Variables

Variable	Female n =111			Male n =285		
	Mean	S.D.	Percent Distrib. ^a	Mean	S.D.	Percent Distrib. ^a
<i>Owner Characteristics</i>						
Age of Owner	49.91	10.1		50.57	11.0	
Education			*			
1. No Diploma			3			9
2. High School Graduate			12			39
3. Some College – no degree			28			43
4. Associates Degree			10			30
5. Graduate Vocational or Tech.			3			11
6. Bachelor's Degree			27			70
7. Some Graduate Work			7			4
8. Graduate or Professional Degree			19			79
Race						
1. White			98.5			100.0
2. Asian/Pacific Islander			.3			0
3. Hispanic			.3			0
4. American Indian/Alaskan Native			.3			0
5. Other			.3			0
Years of Ownership	10.07*			15.49		
<i>Business Characteristics</i>						
Age of Business – Year Business Started	1982*	29.4		1966	35.8	
Legal form of Business			*			
1. Sole Proprietorship	72		64.6	120		42.0
2. Partnership	3		.10	17		5.8
3. Corporation	35		34.3	148		52.2
Family Business (1= Yes)	59		53.1	185		64.9
Number of Employees	2.95*	3.88		5.06	4.28	
Gross Sales for 2002	\$151,893*	231587		\$581,566	865,431	
Future of this Business						
1. Expand	69		63.6	171		61.2
2. Stay the Same	31		28.3	88		31.9
3. Get Smaller	9		8.1	22		6.9
<i>Network Membership Characteristics</i>						
Membership Years (Year Membership Began)	1995*	6.89		1989	11.95	
Personal friendships with network members	9.50*	1.68		18.45	1.73	
Involvement in network activities (5 pt. scale)	2.72	.106		2.62	.056	
Attended Last Network Meeting (1= Yes)	41		36.9	125		43.9

^a Distribution across variable categories* Indicates significant differences between samples ($p \leq .05$, two-tailed tests).

impact of network activities on the member's business. Incorporated in this discussion are differences found between male and female business owners in perceptions of benefits, cooperation, and impact; thus, we move from H1 to discussion of H3. Following a discussion of the descriptive and comparative findings, we look at relationships among the variables and include an examination of gender influences on the proposed relationships, moving from H2 to further discussion of H3.

The first hypothesis proposed that networked independent small business owners would perceive significant benefits from membership in formal business networks. The overall mean score for the five benefit items was 3.39 on a 5-point scale. Examination of Table 1 reveals the mean scores for benefits perceived by association members were generally higher than the cooperation and impact item scores. Benefits of networking were perceived to have consistently improved over time (3.54), increased awareness of member competitive capability (3.37), increased optimism about the business' future (3.29), and elevated member status with other businesses (3.13). Members also expressed a fairly strong degree of satisfaction with their network (3.57). The first hypothesis is supported in that these networked small businesses operating in small communities do find specific benefits are derived through networking.

We conducted further analyses of relationships among the benefits perceived from increased competitive capabilities (benefit Q71) and optimism about the future of the business (benefit Q73) with the dependent variable benefits of the association have improved over time (benefit Q63). Results of the stepwise multiple regression suggest that specific benefits from networking do involve perceptions of increased optimism and awareness of business capabilities. The total R^2 of .348 was attributed to Q73 (R^2 change = .321, F-

change= 174.81, $p < .01$) and Q71 (R^2 change = .027, F-change 15.07, $p < .01$).

To examine gender differences in benefits, *t*-tests revealed that benefits of networking were perceived very similarly by male and female business owners (H3c). No significant differences were found among any of the items used in measuring benefits. Mean rank orders were identical in that network satisfaction scores were the highest followed by, improved benefits over time, increased awareness of competitive capabilities, increase optimism about the business' future, and elevated member status. Thus, H3c was not supported.

The second hypothesis incorporated the concept of cooperation, proposing that benefits from membership in a formal business network would be influenced by levels of cooperation among firm members (H2a). Cooperation questions assessed the frequency of activities engaged in with other network members. Activities were often both social and business in nature. For example, "visiting the business of another association member" could be considered social in that an interest in the other's operation was expressed but, in prior discussions with network members about this activity, owners considered one outcome from visiting other member businesses to be a stronger sense of relative competitiveness.

Prior research suggests that networks provide members with information or intelligence about their industry and are a valuable source of business innovation (Malecki & Tootle, 1996). Items measuring cooperation among small businesses in small communities support these earlier findings. "The association is a good source of information" was rated highest among all thirteen items (3.94), with "shared information about new techniques, suppliers, customers, or technology" fairly strong at 2.85. What is also important to note is the low overall level of working together in sharing or training employees, hiring

consultants, purchasing materials or supplies and equipment, developing new products or services, or influencing legislation. It cannot be determined from this study if the low level of cooperation in these areas was due to the business type, business location, or business culture in which these owners operate. Preliminary interviews with network members similar in size, rural location, industry type indicated likely engagement in these types of cooperative activities.

Examination of these cooperation activities by gender for testing H3a revealed a significant mean score difference. Females' responses are significantly lower than males' responses. Female owners indicate perceived cooperation at 2.08 versus males at 2.26 on a 5-point scale. Male's and female's responses are not significantly different for most items as shown in Table 1. In terms of cooperative activities measured in this study, women more frequently referred customers to association members; whereas men more frequently worked together to influence legislation. Thus, partial support was found for H3a.

The second hypothesis also incorporated the concept of impact. It proposed that perceived benefits from membership in a formal business network would be influenced by the owner's assessment of the impact of network activities (H2b). Ranking highest among the impact items was the activity of influencing favorable legislation (3.27) suggesting that, although not universally shared, those who did participate in this activity considered the outcome fairly important to their business. The second ranking activity perceived to impact business involved 'providing opportunities for personal socializing' (3.02). A stepwise multiple regression with the seventeen impact items entered as independent variables and benefits as the dependent variable found significance for five of the impact items. The total R^2 of .544 was attributed to "improving managerial skill" (R^2 change = .421, F-change = 244.60,

$p < .01$), "enhancing market knowledge" (R^2 change = .070, F-change = 45.73, $p < .01$), "contributing to service or product development" (R^2 change = .034, F-change = 23.77, $p < .01$), "personal/emotional support" (R^2 change = .019, F-change = 13.55, $p < .01$), and "securing new domestic customers or suppliers" (R^2 change = .011, F-change = 8.14, $p < .01$.) Finding significance for "personal/emotional support" adds strength to Butler and Hansen's (1991) work which posits that social networks underlie or advance strategic networks. Other activities – improving managerial skill, enhancing market knowledge, contributions to service or product development, and securing domestic customers or suppliers indicate support for Borch and Huse (1993) as well as Hoang and Antoncic (2003) in that small businesses in small communities appear to use networking to strengthen their market competitiveness.

Differences in male and female impact responses were not significant for the overall scale (2.28 and 2.35 respectively). The two impact items holding significant differences involved higher assessments among male owners of the impact of training for employees and influencing favorable legislation on their business. In general, these limited differences, identified through t-tests, may be to some degree credited to differences in business size and age for female-owned versus male-owned businesses participating in this study. However, the economic-based activity of influencing favorable legislation followed by the social-based activity of providing opportunities for personal socializing, held the highest level of impact for male owners as well as female owners. H3b was not supported. As with the cooperation scale, the impact scale means scores would suggest below medium levels of perceived impact of the network on member businesses. This finding negates the possibility that a halo effect might have incurred from a study of current network members whose responses might have reflected an obligation to justify

the time and cost of joining a network.

Given the relatively low mean scores on several of the questions addressing cooperation and impact, responses to these items were scrutinized further by creating pole scores of low (grouping responses 1 and 2) and high (grouping responses 4 and 5). The means were calculated for the pole scores from the 13 cooperation and 17 impact items and t-tests were calculated to determine differences by gender groups. Few differences were found between the first analysis using the means of the five levels of responses and the second analysis using the two extreme responses (see Table 1, marked ^a). One new finding is a significant difference in Q31 'referring customers to association members' with women's mean score higher than men's. Support was generated for the following items also found significant in the first analysis: cooperation Q39, impact Q85, and impact Q93. All mean scores for the second run using low and high poles were 1.0 with the exception of Q31, Q39, Q85, and Q93 with mean scores of 2.0.

To test H2 and extend H3, *cooperation* among network members and *impact* of networking on the business were treated as independent variables and assessed for their ability to explain the variance in *benefits* derived from networking. Given that the one intended outcome of this research was to learn more about potential gender differences in networking, a hierarchical regression was performed with gender entered on step one (males coded as 0 and females as 1). The preliminary *t*-test analyses of owners' demographics indicated significant differences for males and females in terms of years of ownership, as well as business size (number of employees and gross sales); therefore, ownership years, employees, and gross sales were entered on step two as control variables. At step three in the hierarchical regression the cooperation and impact variables were entered. Interaction effects of gender with impact of networking and gender with cooperation among network

members were entered on step four and five respectively to assess potentially more subtle gender effects. The unique information each variable contributed in understanding the dependent variable benefits of networking is expressed in R² coefficients in Table 3 using an alpha level of .05.

Gender did not have a significant effect on small business owners' perceptions of network benefits (step 1), nor were there significant effects for years of business ownership, gross sales, and number of employees on perceived network benefits while controlling for gender (R² = .006). Results of the multiple regression with gender, years of ownership, gross sales, and number of employees previously entered suggest, in response to H3, there are no significant gender differences in the types benefits or degree of benefit perceived for this sample of small business owners operating in small communities (H3a).

To further explore the benefits of networking (H2), cooperation and impact were entered on step 3 of the hierarchical regression. Both impact and cooperation contributed significantly to the perceived benefits of networking net of the effect of gender, ownership years, and related size variables (R² = .580). With this finding there is affirmation for H2a and H2b, business owners perceive that their linkages within formal business networks in the form of cooperation and impact on business do provide specific benefits. Examination of the collinearity statistics revealed small levels of tolerance for each of the independent variables, thus, the data was not considered multicollinear. The interaction of gender was also examined separately for each of the two network related variables - impact (step 4) and cooperation (step 5) - while controlling for specific differences in owner and business characteristics (see Table 3). There were no interaction effects of gender with either impact or cooperation scores; thus, providing additional non-support for H3.

Table 3 - Hierarchical Regressions with Gender Interactions
 (Note: N=396, $p \leq .05$ significance level)

Step	Dependent Variable	Independent Variable	B	Beta	T-Value	Sig.	R ²	Adj. R ²	F Change	Sig of F Change
	Intercept	1.585		12.455	<.001					
1	Gender	-.229	-.136	-1.045	.297	.003	.001	.003	1.21	.272
2	Yrs. of Ownership	.003	.050	1.459	.145	.006	-.004	.003	.411	.745
	Gross Sales	4.18E	.004	.110	.913					
	No. of Employees	-.005	-.028	-.718	.473					
3	Impact	.580	.649	13.482	<.001	.580	.573	.574	262.87	<.001
	Cooperation	.188	.144	3.074	.002					
4	Impact X Gender	.038	.057	.508	.611	.581	.573	.001	.893	.345
5	Cooperation X Gender	.064	.083	.555	.579	.581	.572	<.001	.308	.579

DISCUSSION

Two important issues are explored in this study, each having implications for small businesses, particularly successful small businesses that operate in small communities and plan to grow, and for community development professionals striving for new and continued business growth. While among the sample respondents there were several examples of very new firms, the average participant in this research had owned the subject business for 14 years and the age of the business was 31 years, suggesting the inheritance or purchase of an existing business.

Approximately two-thirds planned to expand the business and rated their level of success as a 7 on a 10-point scale. This offers some support for Butler and Hansen's (1991) premise that strategic networking is valuable for established businesses interested in growth. It cannot be determined from this exploratory research whether the success of the business was assisted by network membership; however, it appears that membership in the network began shortly after acquiring the business and that the business continued to thrive. In addressing the first issue, "whether linkages within formal business networks are perceived as providing benefits to small business owners", members of these formal networks did report fairly high levels of benefits, with 34.8 percent of the variance in benefits explained by increased competitive capabilities and increased optimism about the future of the business. Further, it was discovered that, even at fairly mediocre levels of perceived network impact on the business and cooperation among network members, these owners considered the network advantageous.

In support of the first hypotheses, we find that owners of small networked firms perceive there are benefits from membership in formal business networks. All thirteen cooperation and seventeen impact items

measured in this study held significant correlations ($p \leq .001$ level) with the network benefit variable. Cooperation was perceived as largely sharing information, particularly information about new techniques, suppliers, customers, or technology. Specific impacts such as improving managerial skill, enhancing market knowledge, contributing to service and product development, personal and emotional support, and securing new domestic customers and suppliers largely explained the perceived benefits derived from their network membership. Discovering 58 percent of the variance in the network benefits variable was explained by the impact and cooperation variables provides empirical support of the second hypotheses. Though members did not share high levels of resources, there was evidence of cooperation in sharing industry-related information sufficient to result in an impact on owners' market knowledge.

Solymossy (2000) claimed that network benefits, particularly knowledge that is acquired and adapted to improve the firm's operation, are not always maximized in small and medium-sized enterprises and, as a result, the real value of networking is sometimes not fully realized by the owner. The degree to which the knowledge gained through networking has been applied to business strategy cannot be determined from this study. However, discovering that network members did report "enhanced market knowledge" and "improved marketing" through the network, does imply that marketing knowledge obtained was applied.

There are mixed findings regarding the second thrust of this research asking whether there are differences in benefits, cooperation, and impact of networking for female-owned versus male-owned businesses. Consistent with past research, we found that years of ownership and gross sales are somewhat higher for males, and that within this sample of highly educated business owners, males hold higher levels of advanced degrees and

operate more frequently as corporations rather than as sole proprietorships. However, no support was found for the third hypotheses (H3c) in that women were not found to be significantly different than men in their overall perceptions of network benefits after controlling for business size and years of ownership.

Examination of overall mean scores for the cooperation, impact, and benefits reveals significant differences in network cooperation perceived by male and female network members but no significant overall differences in scales measuring impact and benefits. These findings offer partial support of the third hypothesis (H3a). The listing of individual questions and their mean scores by gender in Table 1 illustrates there were significant differences for five of the thirteen scale items measuring cooperation and two of the seventeen scale items measuring impact. Respondents' perceptions of low to medium cooperation and impact warrants further study. Though preliminary field interviews were held with a sample of network directors and members of three networks to determine the types of cooperation and impacts experienced by these small business owners, it is not known if there are activities yet unexplored or if network activities are very specific to each network. Future in-depth examinations of small business networks may generate a better understanding.

There are several limitations to our study. First, facets of the respondents' family-owned businesses were noted but not fully explored. Perhaps some of these firms were team-managed with both male and female input. More information could inform as to how small business owners balance work and family. Second, the sample was fairly homogeneous in race and ethnicity. One study of ethnic business groups suggested that dense concentrations of firm owners with common ethnic identities hire employees of the same ethnic origin, develop a strong presence in the heavily populated

communities, and use the networks as a source of resources such as start-up capital, access to markets, and business opportunities (Portes, 1998). Comparison across ethnic business enclaves could highlight differences and similarities in network costs and benefits. A third limitation of this study stems from the single interview at one point in time. As volatile as small businesses are today, a longitudinal perspective would generate a clearer picture of changes to the businesses, network membership status, and as to the nature of network activities. Additional questions could be incorporated to learn more about specific network relationships, such as strength and density of ties, and to what degree these relationships generate resources necessary for a competitive advantage. These questions could be asked of small business owners residing in urban areas as well as rural.

In the final analysis, the gender of the business owner, as well as the size and years of ownership, did not offer a significant explanation for the perceived benefits of networking. In other words, whether the business was a medium, small, or very small operation in number of employees or sales, and whether it was operated by a male or female for a fairly short or long period, made relatively little difference in their assessments of the benefits of network membership. In answer to the question posed in the title of this research, male and female small community networked business owners considered cooperation among members and the business impacts from networking to have a strong positive effect on network benefits. Consistent with prior research suggesting that networking is a tactical stance or strategy for operating in competitive markets (Borch & Huse, 1993; Hoang & Antoncic, 2003), male and female firm owners considered an important benefit of networking to be an increased awareness of their competitive capabilities. Networked participants in this study perceived their business to be largely successful with a plan for future business growth.

Clearly, the overall results of this study support strategic network research but, in addition, they offer new information that has implications for sustaining or starting small businesses in the small community marketplace. Attracting new businesses and supporting current businesses are viewed as priorities for spurring economic development in small and rural communities. Henderson (2002b) stated that growing entrepreneurial businesses, "can add new jobs, lift incomes, generate new wealth, and help connect the community to the larger, global economy" (p.1). Networked business owners operating in small communities appear to be convinced that their network membership will provide them with a competitive edge. This study was an initial exploration of formal business networks. Much more research is required for understanding how networks can assist small businesses operating in rural markets.

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