

Small Firms' Competitive Strategies and The Firms' Reliance on Resources Acquired Through Networks¹

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Abstract

This study of 84 small, mostly young firms analyzes the relationship between the firms' competitive strategies and the importance they attach to particular resources acquired through the entrepreneurs' networks. Observed patterns indicate that the importance of specific networked resources depends on the competitive methods emphasized by a given firm. The implications of these findings for practice and for research are discussed.

Entrepreneurship scholars have recognized the importance of networks to small and new firms (Birley, 1985; Dollinger, 1984), particularly in amassing the resources needed for a business (Starr & MacMillan, 1990). Networking increasingly is seen as "primarily a means of raising required resources" (Ramachandran & Ramnarayan, 1993:515). Because new firms usually have few employees and possess only limited resources, intensive networking improves their access to information, capital, personnel, raw materials or merchandise, customers, and facilities, and may provide the trappings of legitimacy (Starr & MacMillan, 1990). Some scholars even treat "the interorganizational community or network as the relevant unit of analysis" (Van de Ven, 1993:226).

Strict reliance on theories of economic exchange is inadequate to explain the process by which resources are marshalled. The business venture, especially in its early stages, is also a social endeavor. Founders carry out economic exchanges within the context of social relations established prior to and during the formation of their ventures; they continue to develop such relations as their businesses mature (Larson & Starr, 1992). Over time the relationship between an entrepreneur's social and business contacts may become symbiotic--business success may bring increased social contacts, support, and recognition (Freeman & Keels, 1992)--but a young firm's social relations can be expected to support business exchanges rather than *vice versa*.

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Research on Networks and Entrepreneurship

A network is the conceptual or graphical representation of a set of individuals or organizations and the relation linking them (Knoke & Kuklinski, 1982); networking means establishing and maintaining such relations. The outcomes experienced by individuals or organizations are affected by their relations, both direct and indirect, with other elements of the network (Knoke & Kuklinski, 1982). At a given time, a person may be a member of several networks that are defined by different relations and that comprise at least some different members.

Research on entrepreneurs' social networks and their effects on firm performance generally has defined networks as those individuals who are linked directly to the entrepreneur, to the exclusion of people linked only indirectly. Networking's effects are not unequivocally positive: its incidence and value seem to depend on the size, type, and developmental stage of the firm in question (Freeman & Keels, 1992) as well as on its competitive strategy (Ostgaard & Birley, 1994). Research particularly has examined the composition and the size of entrepreneurs' networks, but neither has been related conclusively to performance. We have reviewed this literature elsewhere (Katrishen, Sandberg & Logan, 1993) and our conclusion follows that of Johannisson (1990:21): "[P]roperties of personal networks in general are not related to business success in emerging firms."

The Importance of How Networks Are Used

More telling than the composition or size of networks, however, may be the uses entrepreneurs make of them. As reported by Birley (1985), business contacts were more helpful than family and friends in gaining access to raw materials or supplies, business equipment, locations, employees and sales, whereas family and friends were the primary sources of capital. Additional evidence of networks' roles being differentiated by the resources sought through them is found in a study of the social networks of a small, Midwestern community (Galaskiewicz, 1979). Business managers contacted socially, notably through service clubs and Protestant churches, were major sources of information and advice for entrepreneurs in making business decisions. More formal contacts with banks, law firms, business associations, and local government agencies were major sources of information about the community's economic plans and development.

Recalling that a network represents a set of individuals or organizations *and the relation linking them* (Knoke & Kuklinski, 1982, emphasis added), it follows that an entrepreneur likely draws on multiple networks and that a particular person or organization might be included in more than one of them--providing, for example, financial resources through one network and market tidings through another. Indeed, other evidence points to the specific, and frequently multiple, uses made of particular members of entrepreneurs' networks. Venture capitalists provide not only capital but also management expertise and access to others in their own web of contacts (Sapienza, 1989). Attorneys, consultants, and executive placement firms all relayed information among high-tech companies in the Silicon Valley in addition to providing the customary services of their professions (Rogers & Larsen, 1982).

Examining only the composition or size of an entrepreneur's networks, without differentiating among their uses or purposes, overlooks the value of the resources they provide. Treating all the contacts of an entrepreneur as part of a single, undifferentiated network overlooks the entrepreneur's own choices in turning to individuals for particular purposes.

Relating Networks and Competitive Strategy

Despite the ostensible value of networks to entrepreneurs and considerable inquiry into the characteristics of these networks, research has confirmed little of their supposed effect on firm performance. At the same time, evidence shows that competitive strategy affects the performance of new ventures (Kunkel & Hofer, 1993; McDougall, Robinson & DeNisi, 1992; Sandberg, 1986). Networks often provide resources to new ventures, and a resource-based framework usefully links strategy, the workings of organizations, and performance (Mahoney & Pandian, 1992).

A firm's networking has been interpreted as "the consequence of strategic decisions" concerning targeted markets and the resources needed to compete in them (Dollinger, 1984). This interpretation squares with the emphases on the acquisition, mobilization, and deployment of resources and their integration with opportunities that undergird both strategic management (e.g. Wernerfelt, 1984) and entrepreneurship (Gartner, 1990; Sandberg, 1986). The value to a firm of a particular resource--whether physical, financial, or informational; whether owned or temporarily controlled--derives from its utility in discovering and exploiting opportunities. It is through competitive strategy that the firm attempts to exploit those opportunities. Thus an entrepreneur can be expected to attach greater importance to a network if it provides resources critical to the firm's competitive strategy. Competitive strategies differ in their resource requirements, and networks differ in the resources they effectively provide.

Even so, little attention has been paid to the relationship between a firm's networking activities and its competitive strategy. A noteworthy exception is Ostgaard and Birley's (1994) study of networking by 159 companies in two counties in England. They derived clusters of firms on the basis of the firms' competitive strategies, then compared network attributes and activities across those clusters. Ostgaard and Birley used four constructs (propensity to network, network activity, network density, and network intensity) that originated in the work of Howard Aldrich and have been widely adopted in research on entrepreneurs' networks. They also developed a fifth construct, which they called "content of network exchanges" to capture a relation's "transactional content" (Ostgaard & Birley, 1994:284). The variables making up that construct clearly involve resources: "contacts with new customers, market information, competitor information, access to distribution channels, new contacts, advertising by word-of-mouth, general advice, product and service development, assistance in obtaining business loans or investors" (page 304).

Ostgaard and Birley found differences between strategic clusters on eight of 29 networking variables. They also commented that "interestingly" five of the eight that differed significantly between clusters were among the nine variables that made up "content of network exchange" (page 294). We believe that the work of Ostgaard and Birley, and this element in particular, points to a research focus that may resolve some of the confusion surrounding the importance of networks.

Specifically, we shall focus on the networks' importance as sources of various resources rather than on their composition and size. Because we believe that the value of these resources depends on

their utility to the firm's strategy, we shall explore the relationship between competitive strategy and the importance of resources acquired through the entrepreneur's networks. Thus, in the absence of well-developed theory to guide hypotheses, we propose the following:

The importance to an entrepreneur of a particular resource acquired through networks depends on the competitive strategy of his or her firm.

Research Design and Methods

This study required the development of a survey instrument and its administration to a sample of small and emerging firms. The instrument was a questionnaire comprising measures of competitive strategy and of the importance attached to particular resources acquired through the entrepreneur's networks. The questionnaire was administered in 1992 in conjunction with the annual assessment of counseling services offered by the South Carolina Small Business Development Center (SBDC). Because the assessment was a followup on the SBDC's 1991 survey, the present study involved only respondents to the earlier survey. The sample ultimately consisted of SBDC clients who received at least five hours of counseling in 1989 or 1990 *and* owned and operated a business during 1992.

Design and Measures

The questionnaire was constructed from multiple sources. It included items on networks modified from the "General Social Survey" (Burt, 1984) and others from Aldrich, Rosen, and Woodward (1987). Open-ended questions were designed to identify the relations between entrepreneurs and their important confidants. We had pretested this portion of our instrument in 1991 through interviews with five owner-operators of small businesses and developed a forced-choice questionnaire that was used in the SBDC's 1991 survey.

We further modified the previous instrument for this study. It differed most notably from instruments used by Burt (1984) and Aldrich and associates (1987) in that it identified the *resources acquired through* networks and measured their *importance* to entrepreneurs rather than measuring the networks' *size* and *composition*.

Resources. We followed the selection criteria also used by Ostgaard and Birley (1994:284): "The resources selected were those thought to enlighten the relationship to firm competitive strategy..." That is to say, we drew on the literature of entrepreneurship and improvised where we found little guidance.

The resources of critical importance to new and small businesses include entrepreneurial capability, relevant knowledge bases and expertise, and financial capital (Cooper, Gimeno-Gascon, & Woo, 1991). Most measurements of available resources consider only those contained within the organization. We believed that social resources, "embedded in one's social network, [...] not possessed goods of the individual [but] accessible through one's direct and indirect ties" (Lin, Vaughn, & Ensel, 1981), also are critical to success because they afford access to other types of resources.

We grouped resources into six categories: information, discussion and advice, capital, borrowable tangible resources, customers and referrals, and supplier referrals. Each is the basis for identifying a resource-providing network. The six resource categories are discussed in the following paragraphs and related where possible to the “content of network exchanges” variables used by Ostgaard and Birley (1994).

Information. Even capable entrepreneurs who possess significant expertise need information on markets, competitors, technologies, and other matters as they devise strategies; the needs are more pronounced among less experienced or knowledgeable entrepreneurs (Timmons, 1990). The intensive acquisition and effective processing of such information are associated with higher performance among small businesses (Dollinger, 1984). This category is represented in Ostgaard and Birley (1994) by two variables, market information and competitor information.

Discussion and advice. Beyond the entrepreneur’s need for information often lies the need for a sounding board to assess his or her ideas and offer advice (Timmons, 1990). Sources of such feedback and advice may be varied (Greco, 1992). This category corresponds to that of “general advice” in Ostgaard and Birley (1994).

Capital sources. Capital is a critical tangible resource for business ventures (Cooper *et al.*, 1991)--hence the importance of the network that gives, invests, or lends capital for the venture. The entrepreneur who can neither personally meet the firm’s capital needs nor obtain funds from formal sources may turn to informal investors, or angels (Wetzel, 1987). In other cases the entrepreneur’s family and friends may fill the breach, often at below-market rates. Ostgaard and Birley’s (1994) variables included “assistance in obtaining business loans or investors.”

Borrowing resources. Entrepreneurs often borrow tangible resources owned by others. Such borrowed resources as vehicles, office space, telephone lines and receptionists can convey essential credibility at little or no cost to the fledgling firm (Starr & MacMillan, 1990). Ostgaard and Birley (1994) did not include this variable.

Customers and referrals. Organizations and individuals may provide critical aid by becoming customers or helping the entrepreneur attract other customers. Although the organizations and individuals who provide this help may also be professional advisors, business acquaintances, investors or lenders, family, friends, suppliers or customers, in this context they are a social resource to the entrepreneur. Ostgaard and Birley (1994) included “contacts with new customers” and “advertising by word-of-mouth” to capture this aspect.

Suppliers and referrals. Reasoning similar to the customer-and-referral resource applies to people or organizations that aid in establishing sources of supply for the venture. This category appears not to have been included by Ostgaard and Birley (1994).

Resource Providers. The instrument listed nine categories of individuals (family, friends, social acquaintances, professional advisors, investors or lenders, suppliers, customers, coworkers, and business acquaintances) who might play an important part in starting or operating a business. We gleaned these categories from a broad review of the literature on entrepreneurship.

Importance of Resources Acquired through Networks. We identified the importance of the six types of resources acquired through the entrepreneur's networks by asking respondents to rate the importance of individuals in each category as sources of information, in discussing critical matters, as sources of capital, as customers or sources of referrals, in establishing sources of supply, and in allowing use of their resources at little or no cost. Importance was rated on a 7-point scale ranging from "not at all important" to "extremely important." A respondent's ratings of the importance of all nine categories of individuals with regard to a particular resource were summed to create a measure of that networked resource's importance to that entrepreneur. Thus we devised six "networked resource importance" scores for each entrepreneur.

Competitive Strategy. The questionnaire also included 17 items concerning competitive methods. These items utilized seven-point semantic differential scales originally contained in the 26-item instrument developed by McDougall and Robinson (1990) to identify new venture strategies. Pretests of that instrument in conjunction with the SBDC's 1991 study revealed that some items were deemed irrelevant by about one quarter of the respondents. We deleted those items from the instrument used in this study. Competitive methods items retained in the questionnaire are identified in Table 1.

Sample

We mailed the questionnaire in 1992 to the 355 clients who had responded to the SBDC's previous study and our pretest questionnaires. Three mailings yielded 112 responses (a 31.5% rate). Twenty-three respondents never started their businesses and five others had gone out of business during 1991. The remaining 84 respondents who still operated their businesses became the basis of this study. Forty-nine percent operated service businesses; the remainder operated retail (26%), manufacturing (11%), wholesaling (5%), construction (2%), and other (7%) businesses. The average age of these firms was seven years, and 84 percent had been in operation for less than ten years. Among those that provided performance data for 1991, average sales were \$588,814 (n=57) but 77 percent had sales of less than \$500,000, net income averaged \$17,048 (n=48) although 71 percent fell below that level, and firms averaged 9.1 employees (n=51).

Table 1

RESULTS OF REGRESSION OF COMPETITIVE METHODS ON IMPORTANCE OF RESOURCES ACQUIRED THROUGH EACH NETWORK

COMPETITIVE METHODS	Information Network	Discuss Network	Capital Network	Borrow Network	Customer Network	Supplier Network
1. Narrow vs broad product range	2.94 **	3.01 ***	2.15 *	2.55 **	3.96 ***	2.25 *
2. Limited vs broad geographic market	1.28	2.00 *	0.74	-0.28	2.05 *	0.19
3. Minimal vs high customer service Method 3 squared	1.95 *	1.82*	0.33	0.26	2.80**	1.89* -1.38
4. Lowest vs highest price offering	1.84*	0.28	1.24	-1.49	1.18	0.08
5. Minimal vs high advertising/promotion Method 5 squared	2.17* -1.58	1.25	1.24	0.92 -1.69*	2.49**	1.99* -1.39
6. Minimal vs superior product quality Method 6 squared	1.45	0.06	-0.59	-0.14	1.53	-1.72* 1.69*
7. Minimal vs highly skilled workers	0.94	1.05	1.72*	3.17***	2.23*	2.17*
8. Improve profits through greater margins vs higher sales volume	1.72*	3.21***	3.77***	1.03	2.17*	1.01
9. Absorb overhead to build organization vs minimize overhead	-0.24	0.73	-0.48	0.07	1.54	1.37
10. Small vs large number of customers	2.75**	2.73**	2.38*	2.43**	2.79**	2.32*
11. Frequent vs infrequent customer purchases	-3.46***	-3.15**	-1.08	-1.91*	-2.54**	-3.36***
12. Small vs large customer order	0.75	1.06	1.62	2.55**	1.78*	1.43
13. Internal vs external capital generation Method 13 squared	-0.45	-1.62	-0.15	1.91* -1.98*	-0.17	0.87
14. Short vs long-term supplier arrangements Method 14 squared	1.53	1.77*	-2.09* 2.45**	1.95*	1.80*	1.34
15. Small vs large scale market entry	1.25	1.45	1.21	2.50**	1.68*	2.35*
16. Short vs. long-term customer relationships Method 16 squared	3.84***	3.09**	2.17* -2.00*	0.29	3.22***	2.60**
17. Primarily equity vs debt capital Method 17 squared	1.13	0.69	-0.15	0.13	0.24	1.73* -1.88*

Statistics have t distributions, df=60.

* = p<.05, ** = p<.01, *** = p<.001

Squared terms for competitive methods indicate curvilinear distributions

All squared terms without asterisks are significant at p<.1

Analyses

The relationship between a firm's employment of particular competitive methods and the importance of various resources acquired through networks was explored through weighted-least-squares regression of each competitive method on all resources.²

Results

We investigated whether the importance of particular resources acquired through networks depended on the competitive methods employed by a firm. A separate WLS model regressed each competitive method on the networked-resource importance variables. Fifty-two of 102 t-statistics of the regressions were significant, as shown in Table 1. Sixteen of the 17 competitive methods were significantly related to the importance of at least one networked resource. Space does not permit a narrative presentation of the results.

Discussion

We proposed that the importance of a resource acquired through networks depends on the firm's competitive strategy. The results generally support this proposition. For every competitive method except the absorption of overhead to build the organization, at least one resource acquired through networks was considered important. At the same time, however, no networked resource was deemed important for every competitive method. Among methods that were related to more than one networked resource, the strength of the statistical associations varied by method and resource. For example, emphases on 12 of the 17 competitive methods were related to the importance of the customer-and-referral resource, but these associations were not always the strongest involving that competitive method.

Most of the statistical associations lend themselves to practical interpretation. It is not surprising that the customer-and-referral resource was important when firms emphasized broad product/market scopes (Methods 1 and 2), high sales volume (Methods 8, 10, and 15), and relations with customers that emphasize frequent purchases (Method 11), large orders (Method 12), or long-term relationships (Method 16). An emphasis on customer service (Method 3) may be conveyed more credibly through word-of-mouth testimonials than other means, and hence depend on the customer-

²Factor analysis revealed no "archetypes" of strategy. McDougall and Robinson (1990) found eight such strategies using the full, 26-item instrument from which our competitive method items were drawn. Their sample was drawn from "two related industry groups: computer-related or communications-related equipment manufacturing" (McDougall, Robinson & DeNisi, 1992:283). Similarly, Ostgaard and Birley (1994) found six such strategies using 19 items drawn largely from McDougall and Robinson's work. Their sample comprised firms in "manufacturing, engineering, and software development" (page 285). In a diverse sample such as ours, the applicability of a particular competitive method may differ across industries even among firms pursuing the same strategy; indeed, this is a principal reason for the use of generic strategy categories in analyses across diverse industries (Chrisman, Boulton, & Hofer, 1988).

and-referral resource. High advertising and promotions expenses (Method 5), while intended to reach customers other than through a network for customers and referrals, bespeak an orientation to growth and volume that must draw on all resources to achieve its goals.

Many of the competitive methods related to the customer-and-referral resource also were related to the information-providing or discussion-and-advice networked resources. Again the associations generally are not surprising. For example, when firms emphasize a broad product range (Method 1), entrepreneurs consider both information-providing and discussion-and-advice resources important. It makes sense that they would lack detailed knowledge about some product varieties or associated market segments and would seek information and advice from members of their networks. Geographic breadth (Method 2), on the other hand, is associated with greater importance of discussion-and-advice resources but not of information-providing resources. This difference implies, at least for these entrepreneurs, that extending their businesses into additional product varieties and associated market segments imposed greater information requirements than did their geographic extension, limited as it often was to local markets in one state.

The importance of the capital source resource was related to emphases on broad product scope (Method 1), high sales volume (Method 8), and a large number of customers (Method 10). Each of these competitive methods is likely to require stronger capitalization for either facilities or working capital. The interpretation of this networked resource's association with an emphasis on highly skilled workers (Method 7) is less straightforward. One possibility is that new ventures and young firms must draw on capital resources to meet payrolls reliably, and that highly skilled workers are less likely than other workers to remain with the firm if paychecks are late.

The importance of the networked capital source was strongest among firms that emphasized the extremes of either short- or long-term arrangements with suppliers. This negative curvilinear relationship may point to the importance of trade credit. Because short-term suppliers give little trade credit, their customers must look elsewhere to finance their inventories, whereas long-term suppliers typically offer trade credit and may themselves become members of the capital source network. This explanation is consistent with the observed association between an emphasis on debt (rather than equity) capital (Method 17) and the importance of the supplier referral resource.

The supplier referral resource was related to many of the methods based on broad scope and marketing methods. Interestingly, it was the only networked resource associated with an emphasis on product quality (Method 6). The relationship was negative and curvilinear, indicating that the supplier referral resource was important at the competitive extremes of "emphasis on minimal but serviceable product quality" and "emphasis on superior product quality." This pattern suggests that referrals to suppliers are critical to a low-quality, least-cost strategy as well as to its opposite, differentiation through product quality. At these two competitive extremes entrepreneurs needed to identify specialized suppliers in order to satisfy their own critical success factors.

The importance of the entrepreneur's network for borrowing tangible resources is related to several of the competitive methods associated with ambitious growth: broad product scope (Method

1), high volume (Methods 10 and 15), frequent purchases (Method 11) and large orders (Method 12). It also is associated with an emphasis on highly skilled workers (Method 7), suggesting that firms borrowed or shared key workers before being able to afford their full-time employment. These associations of networked resources with competitive methods underline networks' value in the resource cooptation (Starr & MacMillan, 1990) that enables more ambitious strategies than could be sustained by internal resources alone.

The positive curvilinear relationship between the network for borrowing tangible resources and external generation of capital (Method 13) is consistent with the foregoing. A positive relationship suggests that firms turn to both this network and to external capital to offset an insufficiency of internally generated capital. Yet the curvilinearity suggests that at the highest levels of emphasis on external sources of capital, firms' capital needs are satisfied to the extent that borrowing of tangible resources becomes less necessary.

Conclusions

The results uphold the premise driving this research. The importance of any resource-providing network depends on the competitive strategy for which it is employed. We turn now to the implications of the results for practice and for research.

Implications for Practice

This study has several implications for entrepreneurs and those who advise or back them. First, it goes beyond previous evidence that networks serve important ends for entrepreneurs, suggesting that an entrepreneur's "network" really comprises multiple networks defined by the resources each provides. The entrepreneur who fails to make this distinction, directing energies toward developing an undifferentiated "network," is less likely to acquire critical resources than is one who targets their most effective sources.

Second, from this multiple-network, resource-based perspective comes evidence of the relationship between an entrepreneur's use of particular networked resources and the methods by which his or her firm competes. Different resource-providing networks may play critical roles depending on the dictates of a venture's strategy; knowing which networked resources are most important in pursuing a particular competitive method enables the entrepreneur to target the networks most likely to provide them. Third, the curvilinear relationships point to the danger of overreliance on acquiring certain resources through networks. Very high importance of such a networked resource may indicate neglect of internal resources or of alternative means of achieving business aims.

From these implications come several others. In developing a business plan, the entrepreneur can identify critical resources that are beyond the firm's immediate control, then take steps to develop a network capable of providing them via social cooptation. Thus cultivation of a network becomes a strategic task to be integrated with other key activities in planning and implementing the venture

strategy. As such, investors and advisors would do well to evaluate an entrepreneur's capabilities in developing and making use of networks as they would weigh his or her capabilities in other key managerial tasks required by the venture. This advice is tempered, however, by knowledge of the risks of overreliance on one's networks for key resources.

Implications for Research

Research in entrepreneurs' networks appears to offer a fruitful opportunity to apply insights from resource-based perspectives on the firm. Our exploratory analysis showed that the importance of resources acquired through networks depends on the competitive methods a firm employs. Recent research has linked a firm's intangible resources through its capabilities to sustainable competitive advantage (Hall, 1993). This linkage confirms the premise that drove our study: Networks are important because of the utility of the resources they provide, and that utility derives from the resources' value in executing the firm's competitive strategy.

Limitations of this study leave many questions unanswered and thus suggest directions for further research. First, its cross-sectional research design meant that this study could not measure the impact of an entrepreneur's increased or decreased reliance on networked resources nor of the role of networks in changing the firm's competitive methods. Longitudinal research designs could shed light on these important topics.

A second limitation is the sample's heterogeneity across industries. This study captured the importance of information acquired through networks but was unable to interpret it in light of conditions specific to one industry. Heterogeneity may also have thwarted our attempt to derive strategy archetypes in the style of McDougall and Robinson (1990). The firms pursued individual competitive methods, usually with significant effects on performance (Katrishen, Sandberg, & Logan, 1993), but no coherent strategies emerged from factor analysis. This situation supports the arguments of Hofer and Bygrave (1992) for more careful classification of strategies into theoretically rigorous categories. To gain insight into networked resources' impact on performance, future research should operationalize both competitive methods and the generic strategies of which they are part.

The findings of this study may reveal as much about the value of rethinking earlier approaches to networks as about any specific relationship. The general failure of prior studies to detect networks' effects on venture performance suggests to us a misconceptualization of networks rather than a mismeasurement either of their dimensions or of firm performance. By differentiating among networks according to the resources they provide and weighing the importance that entrepreneurs place on those resources, this study offers an alternative to reliance on networks' attributes of size and composition. The importance of networks' composition may rest on the efficacy of various categories of people or organizations as sources of resources demanded by particular competitive methods.

Our findings point to a new direction in research. In particular, a better understanding is needed of how the importance of resources acquired through networks changes as the firm develops from start-up to maturity. In addition, research is needed that relates networks and networking with

traditional constructs in entrepreneurship research. For example, a richer understanding of the role of networks will require consideration of the entrepreneur's skills and behavior and the operational challenges confronting the venture. In this way we can learn more about the social and industrial contexts in which both entrepreneur and venture are embedded and develop an appropriately "socialized" view of entrepreneurship.

References

- Birley, S. 1985. The role of networks in the entrepreneurial process. Journal of Business Venturing 1(1):107-117.
- Burt, R.S. 1984. Network items and the General Social Survey. Social Networks 6:293-339.
- Chrisman, J.J., Boulton, W.R. and Hofer, C.W. 1988. Toward a system for classifying business strategies. Academy of Management Review 13(8):413-428.
- Cooper, A.C., Gimeno-Gascon, F.J., and Woo, C.Y. 1991. A resource-based prediction of new venture survival and growth. In J.L. Wall and L.R. Jauch, eds., Best Paper Proceedings. Miami Beach, FL: Academy of Management.
- Dollinger, M.J. 1984. Environmental boundary spanning and information processing effects on organizational performance. Academy of Management Journal 27(2):351-168.
- Freeman, E.B. and Keels, J.K. 1992. A framework of outcomes of entrepreneurial networking. Paper presented at the annual meeting of the Academy of Management, Las Vegas, NV.
- Galaskiewicz, J. 1979. Exchange Networks and Community Politics. Beverly Hills, CA: Sage Publications.
- Gartner, W.B. 1990. What are we talking about when we talk about entrepreneurship? Journal of Business Venturing 5(1):15-28.
- Hall, R. 1993. A framework linking intangible resources and capabilities to sustainable competitive advantage. Strategic Management Journal 14 (8):607-618.
- Hofer, C.W. and Bygrave, W.D. 1992. Researching entrepreneurship. Entrepreneurship Theory and Practice 16(3):91-100.
- Johannison, B. 1990. Building an entrepreneurial career in a mixed economy: Need for social and business ties in personal networks. Paper presented at the annual meeting of the Academy of Management, San Francisco, CA.
- Katrishen, F.A., Sandberg, W.R., and Logan, J.E. 1993. "Social networks and entrepreneurial performance," Proceedings of the Southern Management Association.
- Knoke, D. and Kuklinski, J.H. 1982. Network Analysis. Beverly Hills, CA: Sage Publications.
- Kunkel, S.W. and Hofer, C.W. 1993. How strategy and industry structure interact to affect new venture performance. Paper presented at the Academy of Management, Atlanta, Georgia.
- Larson, A. and Starr, J.A. 1992. A network model of organization formation. Entrepreneurship Theory and Practice 17(2):5-15.
- Lin, N., Vaughn, J., and Ensel, W. 1981. Social resources and occupational status attainment. Social Forces 59(4):1163-1181.
- Mahoney, J.T. and Pandian, J.R. 1992. The resource-based view within the conversation of strategic management. Strategic Management Journal 13(5):363-380.

- McDougall, P. and Robinson, R.B. 1990. New venture strategies: An empirical identification of eight “archetypes” of competitive strategies for entry. Strategic Management Journal 11(6):447-467.
- McDougall, P.P., Robinson, R.B., and DeNisi, A.S. 1992. Modeling new venture performance: An analysis of new venture strategy, industry structure, and venture origin. Journal of Business Venturing 7(4):267-289.
- Ostgaard, T.A. and Birley, S. 1994. Personal networks and firm competitive strategy--a strategic or coincidental match? Journal of Business Venturing 9:281-305.
- Ramachandran, K. and Ramnarayan, S. 1993. Entrepreneurial orientation and networking: some Indian evidence. Journal of Business Venturing 8(6):513-524.
- Rogers, E.M. and Larsen, J.K. 1984. Silicon Valley Fever: Growth of High-Technology Culture. New York: Basic Books.
- Sandberg, W.R. 1986. New Venture Performance: The Role of Strategy and Industry Structure. Lexington, MA: D. C. Heath.
- Sapienza, H.J. 1989. Variations in venture capitalist-entrepreneur relations: Antecedents and consequences. Unpublished doctoral dissertation, University of Maryland.
- Starr, J.E. and MacMillan, I.C. 1990. Resource cooptation via social contracting: Resource acquisition strategies for new ventures. Strategic Management Journal 11(1):79-92.
- Van de Ven, A.H. 1993. The development of an infrastructure for entrepreneurship. Journal of Business Venturing 8(3):211-230.
- Wernerfelt, B. 1984. A resource-based view of the firm. Strategic Management Journal 5(2):171-180.
- Wetzel, W.E., Jr. 1987. The informal venture capital market: Aspects of scale and market efficiency. Journal of Business Venturing 2(4):299-313.