

Legitimacy Building in the Evolution of Small-Firm Multilateral Networks: A Comparative Study of Success and Demise

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This article reports a longitudinal examination and comparison of two multilateral networks of small and medium-sized firms in the U.S. wood-products manufacturing industry. The research focused on how each of these networks built legitimacy over the course of their early evolution, from the pre-network field, to initial formation and growth, and toward sustainment, culminating in the success of one and the demise of the other. Our findings demonstrate that despite differences in their early bases of support, which resulted in very different strategic emphases, the two networks ultimately had to address three conceptually distinct dimensions of legitimacy—the network as form, the network as entity, and the network as interaction. Based on the findings, we develop specific propositions and draw some tentative conclusions about how legitimacy is established in multilateral networks and how the failure to build legitimacy across the three dimensions may lead to network collapse.●

In the past decade, scholars of organization theory and strategic management have shown a remarkable interest in the study of networks of organizations. Much of this work was stimulated by the success and visibility of cooperative relationships developed in Europe and Asia between suppliers and large buyers (Gerlach, 1992), by the efforts of European economic districts to integrate the activities of small firms (Piore and Sabel, 1984), and by attempts by U.S. firms to emulate these models (Saxenian, 1994). After an initial period of simply recognizing the phenomenon and indicating how networks were different from traditional forms of organizing (Jarillo, 1988; Powell, 1990), scholars turned their attention to exploring these differences in detail, focusing on issues of structure, governance, and conditions for their creation. Although understanding these issues is critical for learning how networks operate outside the boundaries of traditional markets and what stimulates their formation, this work offers only modest insight into how networks evolve over time and the issues that best explain their evolution. Such knowledge is important for understanding the roots of the success or failure of networks.

Recent empirical work has focused on the evolution of cooperative network relationships (e.g., Larson, 1992; Doz, 1996; Arino and de la Torre, 1998; Gulati and Gargiulo, 1999), but with few exceptions (e.g., Browning, Beyer, and Shetler, 1995; Hanssen-Bauer and Snow, 1996; Powell, Koput, and Smith-Doerr, 1996), the focus of this work has been on the evolution of dyadic relations between cooperating organizations, examining joint ventures, strategic alliances, and partnerships. Although dyads are the building blocks of networks, the formation and maintenance of broad, multifirm networks is more complex than that of dyadic alliances and is not well understood. These multilateral networks involve direct interactions among many member organizations that may never have interacted with one another before. They also often involve interactions between member firms and an administrative entity that coordinates network activities.

To understand how multilateral networks evolve over time, we conducted a longitudinal comparative case study on the

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evolution of two regional networks of firms in the U.S. secondary wood-products industry. The main theme that emerged for explaining both early network evolution and ultimate network success was legitimacy. Legitimacy, or what network participants referred to as credibility, was seen by our informants as essential for establishing the fledgling networks, for attracting resources and opportunities, and for understanding network successes and crises.

Legitimacy is critical to the evolution of all social systems, whether the focus is on the evolution of interest groups, organizations, or networks. Institutional theorists argue that legitimacy building is the driving force behind decisions on organizational strategies and structures (Meyer and Rowan, 1977; DiMaggio and Powell, 1983; Zucker, 1987) and that societal acceptance of the organization, and its subsequent survival, depends on its attaining the support of relevant entities in its environment (Baum and Oliver, 1992; Dacin, 1997; Ruef and Scott, 1998). Despite an emerging body of empirical research on organizational legitimacy, however, there has been no attempt to date to explain how interorganizational networks establish legitimacy and then maintain it. The absence of work in this area is somewhat surprising, not only because of the prevalence of networks and network studies but also because focusing on networks is a logical extension of studies of legitimacy at organizational, community, and population levels of analysis (Baum and Oliver, 1992; Amburgey and Rao, 1996; Aldrich, 1999). If networks are really unique organizational forms, as Powell (1990) and others have argued, then they are likely to have legitimacy-building concerns that are distinct from those of individual organizations. In fact, this is what we concluded from our study. We found that network legitimacy was not a monolithic concept but, instead, consisted of three related but conceptually distinct dimensions. To build legitimacy along these dimensions, each of the two networks studied developed different strategies, both of which worked well through early growth. One of the two networks, Alpha-net, concentrated on internal legitimacy building, weathered a serious external legitimacy crisis, and broadened its legitimacy base. It continues to be successful. The second network, Beta-net, built strong external legitimacy that led to early success, but it was unable to overcome its internal legitimacy deficiencies and ultimately dissolved.

We organized our study of evolution and legitimacy building in multilateral networks around three fundamental research questions: What is network legitimacy and why is it important? How is legitimacy established at each stage of network evolution? How does the process of building legitimacy differ across networks, and what are its consequences for network success? Consistent with Suchman (1995: 574), we defined legitimacy as a generalized perception that the actions, activities, and structure of a network are desirable and appropriate. Legitimacy refers to the status and credibility of the network and network activities as perceived both by member firms and outside constituents like funders and customers. It is the acceptance of the network by these internal and external groups, resulting in cognitive support and commitment as

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well as resources, that will ultimately determine whether the network is able to survive as a viable interorganizational form. Like Suchman, we take a middle ground between strategic and institutional traditions.

The research reported here extends our earlier work (Human and Provan, 1997) on multilateral networks of small and medium-sized enterprises. That study focused on the relationship between network structures and firm-level outcomes derived from network involvement. The data were collected from the same two networks studied here, but at only one point in time when both networks were operating successfully. Although we were aware of network legitimacy building from our initial round of interviews, only after one of the networks collapsed, which precipitated our second wave of data collection, did we fully recognize the importance of legitimacy and the legitimacy-building process in contributing to the overall viability or demise of the networks.

MULTILATERAL NETWORKS

Because most organizational network research to date has focused on dyadic ties and because some of our findings on legitimacy building are unique to multilateral networks, a discussion of this type of network is needed. Multilateral networks, involving cooperation and integration of activities across multiple organizations, are fundamental to the delivery of health and human services (Provan and Milward, 1995). In business, they are quite common in Europe but have gained acceptance in the U.S. only recently. Different forms of multilateral arrangements include research and development consortia (Evan and Olk, 1990; Aldrich and Sasaki, 1995), regional industrial districts (Piore and Sabel, 1984; Saxonian, 1994), and networks of small-firm manufacturing enterprises, or SMEs (Hanssen-Bauer and Snow, 1996; Rosenfeld, 1997), working together for both economic and non-economic reasons (e.g., organizational learning). Despite potential benefits, member firms in multilateral networks also face a number of challenges, including equity problems (e.g., free riders) and the uncertainty of coordinating multiple, independent, often competing members.

While not all network firms need to interact directly with one another to succeed, there must be a sense of collective "networkness," by which member firms see themselves as part of the network and are committed to network-level goals. These networks may emerge from existing relationships, such as the relational contracting among artisan firms in Italy's Emilia Romagna region or the close linkages among Silicon Valley high-technology firms (Brusco, 1982; Saxonian, 1994). Many others, like the research consortium SEMATECH (Browning, Beyer, and Shetler, 1995) and the Norwegian SME network Nordvest Forum (Hanssen-Bauer and Snow, 1996), are formed at an identifiable point in time.

A key structural feature of many multilateral networks is the establishment of a distinct administrative entity. Several researchers have discussed the administration of a network through a powerful lead firm (Lorenzoni and Ornati, 1988) or expert head firm that "performs some degree of planning and coordination" (Inzerilli, 1990: 11). In many networks,

however, this entity is typically a large preexisting firm that is the central buyer or supplier in the network. In such cases, there may be little attempt to develop or encourage interaction among member firms, and the lead firm is clearly dominant. In contrast, in multilateral networks a separately created administrative entity is established, which practitioners often refer to as a broker. It is the role of this entity to help build the network, coordinate and manage its activities, support network firms and network-level goals, and provide a centralized location for performing key activities of the network (Aldrich and Sasaki, 1995; Hanssen-Bauer and Snow, 1996). The role of the network broker, or network administrative organization (NAO), is especially important and increasingly common in networks of small firms (Liston, 1996), which generally lack the resources to form or manage the network themselves, particularly when more than a few firms are involved. It is this type of broker-led, SME network that is the focus of our research.

Development of SME multilateral networks did not really start in the U.S. until the late 1980s and early 1990s, the time when the two networks we studied first formed. During this period, the main source of support for SME networks was from national industry leaders and policy makers. At the local level, where the networks were formed, there was considerable uncertainty and even skepticism. SME networks were not legitimized forms, network administrators and member firms had little idea how to proceed, and the entrepreneur managers of the SMEs did not know whether cooperating with competitors would lead to advantages or problems. This was the context for our study.

RESEARCH METHODS

Consistent with a theory-building research design, the study is essentially qualitative, based on data from in-depth interviews conducted at two points in time. Following Jick (1979), we supplemented the qualitative findings with quantitative data from a structured survey of network participants collected during the same two time periods. While we recognize the "micro to macro problem" in social science research discussed by Coleman (1990: 6), we rely primarily on data obtained from individual firms to draw inferences at the level of the network.

Sampling

We selected the networks for study from a U.S. Department of Commerce directory profiling 27 SME networks (Lichtenstein, 1992). The majority of these networks were in the wood-products, metalworking, and apparel industries, and consistent with the newness of the phenomenon, most had formed between 1989 and 1991. The two networks selected were in the secondary wood-products industry, comprising firms that manufacture products, like furniture, from raw wood materials. This industry, which was represented by 10 of the 27 networks listed in the directory, was one of several fragmented industries targeted by economic development agencies for multilateral network development (Bosworth

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and Rosenfeld, 1992). Thus, the network idea, while new, was not totally foreign to the industry we studied.

We randomly selected the two wood-products networks for study and then checked to be sure that member firms were involved in network activities (i.e. it was a multilateral network) and that the network administrative organization would agree to cooperate. The total membership listed in each network directory was 60 and 77 organizations, excluding associate members such as governmental agencies, but we soon found that most of these firms were members in name only. Thus, we studied only those firms from each network that met the criterion for inclusion in our sample of being involved in network activities.

We made the decision to define the sample as active network members after a pretest of the survey. The inactive firms had virtually no involvement in establishing or maintaining either network and had little or no knowledge or insight about how the network evolved, which was the focus of the research. It was not the purpose of the study to examine relationships or gaps that might exist between involved members and those that were members in name only. Most of these firms sent in their dues and were put on the mailing list, but their status was purely nominal. Thus, the criterion for inclusion as a sample member was based on real rather than apparent membership in the network. Our discussion of the networks refers to these two sets of active participants.

To ensure that we obtained as complete a sample as possible of all active network participants, we used a reputational sampling technique based on "expert opinion" (Burt and Minor, 1983; Scott, 1991: 59). This approach has been found to be effective when random or snowball sampling do not meet the research criteria (Holsti, 1968). The appropriate informants were the two network directors, both of whom had actively participated in their network's evolution since inception and had played the principal role in early membership development.

To reduce bias based on recency or selective memory effects, one of the authors reviewed the complete membership directory with each director during the nomination process. The director of the first network, Alpha-net, nominated 22 active firms, while the second network (Beta-net) director nominated 23 such firms. Our "active" criterion was purposely inclusive, requiring only that these firms were known to have had at least some interaction and contact with the network administrative organization regarding network activities over the past year. The proportion of active firms in each network, 37 and 30 percent, respectively, is slightly higher than estimates of 25 to 30 percent obtained from the administrators of three other networks reported in the national directory (Lichtenstein, 1992). We refer to the two networks in our study as Alpha-net and Beta-net to maintain confidentiality. Both networks were structurally similar in having a network administrative organization, which was a critical force in the evolution and legitimacy-building process of each network.

Data Collection and Analysis

Both real-time and retrospective data were collected at two points in time—from mid-1994 to early 1995 and then from 1997 to early 1998, one year after Beta-net had dissolved. We relied on interviews with network founders (NAO and member firms), articles and network reports, surveys, and observations of a monthly meeting. As groundwork for the current study, we had originally hoped to observe firsthand the earlier activities of network evolution, but we were unable to obtain permission to act as participant-observer. Network facilitators and several participants of the two networks expressed concern that an “outside” party might jeopardize the “budding relationships” developing among new network members.

For the first wave of data collection, we used a two-stage process that has been suggested for exploratory research (Eisenhardt, 1989). Stage one consisted of exploratory interviews with a randomly selected subset of the chief executive officer (CEO) owners or top managers of five firms from each network as well as the two network directors. These interviews helped to guide data collection in the second stage. Stage two involved contact with all firms in our samples, in which we collected data from CEO/owners or top managers using phone interviews and a closed-question survey requesting data on firm characteristics and involvement with other firms in the network. The interviews, which lasted up to two hours each, were designed to uncover major issues in network evolution. Using an iterative, constant comparison approach (Glaser and Strauss, 1967; Yin, 1989), we interviewed and recontacted participants as emergent data required confirmation. Field notes and tapes were transcribed shortly after each interview. Using systematic pattern search analyses of textual data (Miles and Huberman, 1994), we analyzed qualitative interview data with QSR NUD*IST software (Scolari, 1997). We identified overall themes in our coded interviews, then, following Eisenhardt’s suggestion, returned to the organizational literature for clarification of concepts and response patterns.

The surveys were pretested on separate networks and with two firms in the networks we studied to ensure the applicability and clarity of the items. After pretesting, we asked respondents in all active firms to provide data on firm characteristics and to indicate whether they exchanged friendship, business, and information with the other sample firms both prior to joining the network and at the time of the first wave of data collection. We completed surveys and interviews from 19 of the 22 firms in the Alpha-net sample (86 percent response rate) and from all 23 firms in the Beta-net sample.

By the end of our first wave of data collection, both networks, while experiencing growing pains and some differences in outcomes, appeared to be moving toward continued growth and success (Human and Provan, 1997). In a follow-up interview two years later, however, we discovered that Beta-net had formally closed. Consequently, we undertook a second wave of data collection to explore and understand why that network had dissolved and whether relationships

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established earlier were maintained. This wave also allowed us to see if and how the evolution of Alpha-net had been sustained. In-depth interviews and structured surveys were conducted once again with the two network directors and with the same CEO/owners or top managers of all the firms in both networks who had agreed to participate in the first data collection and who were still in business. We received full cooperation from all 19 of the 23 firms in the defunct Beta-net sample that were still in business and from 18 of the 19 firms in our original sample of Alpha-net (one firm had been sold). Tables 1 and 2 provide descriptive characteristics of the networks and respondent firms from both waves of data collection.

We analyzed sociometric survey data (friendship, business, and information exchanges) from both waves of data collection using UCINET software (Borgatti, Everett, and Freeman, 1999). To analyze interactions based on complete samples at both points in time, we constructed sociometric data for firms sold or closed since our first wave of data collection by using the exchange data about these companies provided by the other network respondents. Consequently, the sociometric analyses were done with the full samples of 19 firms for Alpha-net and 23 firms for Beta-net for both waves of data collection.

Interactions were validated using a minimizing decision rule, requiring both partners in a dyad to have reported that at least one of the three types of exchanges took place between them (Burkhardt, 1994). The specific type of exchange did not have to be confirmed to validate the relationship. From these interaction data, we then calculated network density, fragmentation, and multiplexity. Density refers to the number of interactions, or links in a network, expressed as a proportion of the total possible links among

Table 1

Network Descriptive Characteristics in Two Data Collection Periods

Network	1994–95 Data collection	1997–98 Data collection
Alpha-net (formed 1989)	Structure of network administrative organization: Part-time director, one part-time staff member, 13-member board of directors.	Structure of network administrative organization: Part-time director, one full-time staff member, 13-member board of directors.
	Structure of member exchanges: Monthly membership and board meetings, monthly newsletter.	Structure of member exchanges: Bimonthly to quarterly membership and board meetings, bimonthly to quarterly newsletter.
	Objectives: Joint marketing, production and development for similar-product wood manufacturers in the state.	Objectives: Joint marketing, production, and development for similar- and complementary-product manufacturers.
Beta-net (formed 1990)	Structure of network administrative organization: Full-time director, three full-time staff members, 13-member board of directors.	Structure of network administrative organization: Closed.
	Structure of member exchanges: Quarterly board meetings and newsletter, annual membership meetings.	Structure of member exchanges: No scheduled meetings, limited exchanges among former members.
	Objectives: Joint marketing, production, and development for secondary wood products firms in a multicounty region of the state.	Objectives: Not applicable.

Table 2

Sample Firm Descriptive Characteristics in Two Data Collection Periods

Characteristics	1994–95		1997–98	
	Alpha-net	Beta-net	Alpha-net	Beta-net
Number of active members	22	23	22	23 (former members)
Respondent position	17 CEO/owners 2 Top managers*	20 CEO/owners 3 Top managers	16 CEO/owners 2 Top managers †	16 CEO/owners 3 Top managers‡
Mean firm size				
Employees	13.7	26.1	14.1	18.7
Gross sales (\$000)	545	3,324	1,350	5,608
Number of primary product lines represented	4.2	12.2	4.1	9.9
Mean number of hours per month spent in network activities	7.3	5.1	2.4	Not applicable

* Three non-respondents not included; $N = 19$.

† Same respondents from 1995 sample, except for one who sold business; $N = 18$.

‡ Same respondents from 1995 sample, except for four who sold or closed businesses; $N = 19$.

network members (Scott, 1991).¹ We calculated both unidirectional density scores, which counts every firm's links to all others without regard to whether that specific type of exchange was reciprocated, and reciprocated density scores, which counts only those specific exchange types that both firms in a dyad agree took place between them. Fragmentation is based on component analysis, which is based on unidirectional ties and counts the number of wholly disconnected pieces (firms or clusters of firms) that make up the entire network. A component is defined as a maximal set of nodes (i.e., firms), all of which are reachable directly or indirectly from every other node in the component (Scott, 1991). Multiplexity refers to the number of different kinds of unidirectional ties (business, information, or friendship) that simultaneously bind a given pair of firms (Burt, 1983; Borgatti, Everett, and Freeman, 1999). We provide a brief overview of the evolution of each network before our more detailed comparisons of the two networks, based on how each built legitimacy.

CASE OVERVIEWS

Network Evolution: Alpha-net Case

In late 1989, a small-business consultant organized a state wood-industry conference in which several hundred firms participated. After the conference, a core group of ten firms formed a steering committee to follow up on the idea of forming a wood-industry manufacturing network. In early 1990, the consultant was hired as Alpha-net's part-time executive director. The steering committee and other new member firms then formed a 13-member board of directors.

Alpha-net's director began facilitating monthly board and membership meetings and obtained small external grants to fund special projects or equipment purchases. Operational funding, however, was provided through membership dues to maximize the network's independence. To expand membership, the director and board decided that a combination showroom and gallery could provide tangible benefits for member firms. An empty building was located, and a

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The density scores of large networks are not directly comparable to those of much smaller networks, since relationships in networks have a natural upward boundedness. For instance, while it would be exceptionally difficult to maintain 50 percent of all possible relationships in a network of 100 firms, a density of .50 could readily be maintained in a 10-firm network. Our networks were both relatively small and comparable in size, making density comparisons possible.

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reduced lease was negotiated in exchange for its renovation. Member firms could earn the right to display their products by working on the sales floor. The building also housed Alpha-net's administrative office, providing a centralized facility for all network activities. During this early growth, the showroom provided a successful incentive for joining the network, and within a year membership grew to 60 firms.

Unfortunately, the newly renovated building caught the attention of local corporate buyers and was sold unexpectedly. The sale required the network administrative office to move and the showroom to close within one year, during which time Alpha-net membership dropped by nearly half. The remaining member firms pursued multiple avenues to reestablish the network, none of which appeared as successful as the showroom, and dissolution of the network was a real possibility.

After surviving a critical year of trial and error, Alpha-net members realized the importance of developing multiple opportunities rather than one (i.e., the showroom), while recognizing that large-scale external support was needed to survive. After acquiring a substantial government grant, the director and board purchased a building for a second showroom and soon reported a modest increase in network membership. A new director was hired who focused on renewing personal contacts in Washington, DC, to promote the network. By the second wave of data collection, network membership had surpassed its 1995 size. Table 3 summarizes the major events we identified for Alpha-net and categorizes these events into five conceptually distinct stages in the evolution of the network, ranging from the pre-network organizational field to sustainment of the network.

Network Evolution: Beta-net Case

In late 1990, a state economic development council applied for and obtained a large grant to develop "European-style . . . networks . . . for small business development." The initial grant included multiyear funding for network operations, such as staff and office space, and for projects such as trade shows and catalogs. After an extensive national search, an executive director was hired, and Beta-net was formed. Initially operating out of the council's offices, the director had primary responsibilities for network membership development and promotions. Using an existing data base of the wood industry published by a state agency, the director traveled the state "contacting and recontacting" wood manufacturers to join Beta-net. During the network formation process, new member firms formed a 13-company board of directors, and monthly board and membership meetings were initiated. The director emphasized doing "whatever it took to gain credibility" for Beta-net during the network's formation and emphasized establishing "positive relationships" with the press and public officials.

During early growth, Beta-net was extremely successful. Linkages with national network consultants led to opportunities for member businesses both inside and outside the state, as well as internationally, while the formal membership roll expanded to 77 firms. Despite its apparent success, how-

Table 3

Event Listing: Alpha-net Case*

Pre-Network Organizational Field		
Environmental characteristics	Emergence of prime movers	Formation
Few interfirm linkages among network sample firms.	Local business consultant identifies state's secondary wood industry as undeveloped market and investigates mechanisms for increasing company and industry competitiveness (I).	Director and core group establish network's structure, including non-profit status, mission statement, governing board of 13 member firms (I).
Perceived lack of interest in secondary wood industry on the part of state legislators.	Consultant organizes statewide conference to coalesce secondary wood industry firms and identify firms' business needs and interests; 200-plus firms participate (I).	Director sets up network's initial offices in home (I).
No state database of secondary wood manufacturers.	Core group of wood industry firms assembled from conference meets with consultant to investigate networks and begin groundwork for statewide network implementation (I).	Director and core group create statewide database of secondary wood firms to use for network membership development and to promote wood industry in the state (I, E).
Many (700+) wood products firms in state.	Core group hires consultant to form network and act as network's first executive director (part-time) (I).	Director and core group solicit similar-product small wood manufacturers to join network (I).
National consultants disseminate information on manufacturing networks, train network brokers, and facilitate regional U.S. workshops with representatives of European networks.		Monthly board and membership meetings initiated with occasional guest speakers (I, E).
Wood industry trade publications publicize European-style networks as firm-level competitive strategy and as economic development tool, including how-to articles on network formation, structure, and processes.		\$200+ "commitment building" membership dues provide funding for network operations (e.g., office equipment, part-time staff) with goal to minimize network operation's dependence on external institutions and funding (I).
		Intermittent small private and public grants provide special project funding (e.g., trade shows, demonstration projects) (E).

ever, the success of Beta-net as an organization came at a price to members. In particular, the director's focus on creating a "high profile" network organization, separate from its members, was a concern, since it appeared to some that in "blowing the [Beta-net] horn," the director and staff "took the forefront" and inadvertently placed members in a "less than positive light."

Overall, most Beta-net members felt that while network management had done a good job of promoting the network's interests, the benefits to members were not always clear. In the beginning, the network director's focus on external issues, especially network promotion and external fund raising, held great promise. But as the network began to mature, it was not clear how its external orientation would translate into tangible benefits to members. Within a year after initial data collection, Beta-net's primary external funding base collapsed. When no new grants were forthcoming, and with little internal support to fall back on, the network organization soon closed. Table 4 summarizes the major events from Beta-net and indicates how they fit into each evolutionary stage.

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Table 3 (*Continued*)

Early growth	Emerging legitimacy deficiencies	Sustainment
Member firms interact to exchange friendship, business, and information; most interactions are new since joining network (I).	Member showroom and gallery lost due to informal leasing arrangements (lack of external support) and self-funding mechanisms (lack of external funding) (E).	Director obtains multi-hundred-thousand dollar grant to purchase building for new showroom (E).
Monthly meetings continue to emphasize member networking (I).	Network membership drops by nearly 50 percent due to loss of gallery with no other tangible (i.e., legitimizing) benefits to counteract loss; no external groups come to network's assistance or offer alternative gallery location (E).	Member firms contribute time, supplies to renovate newly purchased showroom building (I).
Media and publicity attempts perceived to "fall on deaf ears" since network not a "known entity" within state (E).	Core group and director meet weekly to "re-group" network goals and activities (I).	Membership diversity expanded to include manufacturers of complementary products (e.g., accessories) that "create a complete display" for members' wood products (I, E).
Member showroom and gallery initiated after informal leasing arrangement secures use of local building; extensive building repairs completed by member firms prior to moving into building (I).	Other, non-showroom, activities explored (e.g., group purchasing), as well as external funding sources (I, E).	Director feels new leadership needed for next "push" in network development; new director hired with background in grants, marketing, and with state and national connections for network promotion (E).
Informally produced member directory printed and distributed to membership; includes description of firm and primary product lines (I).	Core group and director consider "letting organization go" since external support not eminent, and additional financial support from members not possible (E).	Electronic catalogs developed; participation in statewide media and economic development events (E).
Network membership of similar secondary wood manufacturing SMEs steadily grows, creating internal credibility among members and potential members (I).	Decision made that showroom and external funding are critical to ongoing success of network (I, E).	Color catalog published and nationally distributed (E).
		Additional project-specific grants pursued and obtained (E).
		Network "branch sites" in other locations within state explored (I, E).

* I = events that primarily involve or focus on the network's or future network's internal stakeholders (i.e., network members); E = events that primarily involve or focus on the network's or future network's external stakeholders (e.g., non-network firms, public institutions, foundations, potential customers, the media, etc.).

WHAT IS NETWORK LEGITIMACY?

Our findings from both networks were consistent in pointing to the importance of establishing legitimacy. Rather than being a single broad concept related to overall network legitimacy, discussions with network members indicated that legitimacy has three distinct dimensions: network as form, network as entity, and network as interaction. We discuss each dimension and its conceptual rationale, followed by a discussion on how these dimensions of legitimacy emerged in each network and how each was addressed over time.

We found that an early key to network success was legitimizing the network concept as an acceptable form of organizing. While individual start-up organizations certainly require external resources and support (Stinchcombe, 1965; Kimberly, 1979), the organizational form has long assumed the status of taken-for-grantedness (Meyer and Rowan, 1977) in our society. In contrast, in the late 1980s, the multilateral network was a relatively new form of organizing in the U.S. that was not well accepted, especially by small firms. For instance, an article on networks by Lipnack and Stamps (1993: F11) in the *New York Times* stated that "terms [such as virtual corporations and strategic alliances] are usually con-

Table 4

Event Listing: Beta-net Case*

Pre-Network Organization Field		
Environmental characteristics	Emergence of prime movers	Formation
Moderate interfirm linkages among network sample firms.	Economic development council pursues and obtains multi-hundred-thousand-dollar, multiyear foundation grant to develop local wood-industry networks (E).	Council and director establish network's structure, including non-profit status, mission statement, governing board of 13 member firms (I, E).
Private foundation grants offered for building "model" manufacturing networks in the state's secondary wood industry.	Council implements national search and hires professional in association management to form network and act as network's first executive director (full-time) (E).	Director sets up network's offices in council's location (E).
Statewide database of secondary wood manufacturers previously developed.		Director uses existing state database to contact firms for membership (I, E).
Many (1000+) wood products firms in state.		Director solicits large and small firms that make diverse wood products for network membership and to establish network's external credibility (E).
National consultants disseminate information on manufacturing networks, train network brokers, and facilitate regional U.S. workshops with representatives of European networks.		Monthly board and membership meetings initiated with occasional guest speakers (I, E).
Wood industry trade publications publicize European-style networks as firm-level competitive strategy and as economic development tool, including how-to articles on network formation, structure, and processes.		Organization-building grants provide multiyear funding for network operations and projects (E).
		\$25 or less membership dues provide low barriers to membership and quickly build large-size network (I, E).
		Frequent network promotions initiated to build network's external credibility (e.g., press releases, articles, media events, members sent on "trade missions" to Europe and Canada) (E).

fined in the United States to the activities of large companies. Few people discuss . . . various forms of organizational collaboration . . . for *small business* [*their emphasis*]. One reason is that the independent spirit of entrepreneurs makes cooperation difficult." Thus, the SME networks in our study faced critical legitimacy concerns that went well beyond the age, size, or success of any single member firm. Building the legitimacy of the basic network form must happen early in the evolutionary process and is similar to what Suchman (1995) called the challenge of sector building faced by individual firms in an industry or sector that has minimal external acceptance. It was clear from our interviews that the multilateral network as a form of organizing was not well understood at first and was even feared by some firms. Successful evolution would depend on legitimizing the network as form, both to members and to external groups, such as funders.

The second dimension of legitimacy we uncovered focused on the network as entity. We found that while the network concept had to be legitimized, this was not enough for success. The network also had to develop a recognizable identity

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Table 4 (*Continued*)

Early growth	Emerging legitimacy deficiencies	Demise
Member firms increase interactions somewhat to exchange friendship, business, and information (I).	Members express concern that network's high public profile may be detrimental to member firms (I).	Director pursues manufacturing center as tangible member benefit and for ongoing network funding through non-member user fees (I, E).
Monthly meetings discontinued due to expressed lack of need for such regular meetings; quarterly board and annual membership meetings initiated, replacing monthly meetings (I).	Members suggest that network not take the forefront in place of member firms (I). Suggestion by "many members" to create member showroom not pursued (I).	Manufacturing center board of directors assembled of member firms to advise director and generate internal cohesiveness for network and center project (I).
Professionally produced member directory developed with description of firm, products, capabilities; directory distributed to members, the media, politicians, economic development groups (E).	Director pursues multiple grants to continue network operations and projects (E).	Multiyear grant from primary funding source extended for short period then not renewed (E).
Annual catalog of member products published for 3 years; distributed through national mailing lists (E).		Director contacts selected board members to write letters of support, contact media to "create a swell" of network support (I, E).
Opportunity-specific networking between members and non-members initiated (E).		Many members question the validity of the network concept (I).
Network staff regularly scan local/national publications for member-firm business opportunities, faxing opportunities to member firms as they occur (E).		Network "hibernation" begins as NAO awaits potential new grant awards; office and phone moved to director's home; files and equipment placed in storage (I).
		Outstanding proposals not awarded in "sufficient time or quantity" to allow NAO continuation (E).
		Director and board have final meeting to close accounts, prepare and submit appropriate paperwork to the state to officially close network (I, E).

* I = events that primarily involve or focus on the network's or future network's internal stakeholders (i.e., network members); E = events that primarily involve or focus on the network's or future network's external stakeholders (e.g., non-network firms, public institutions, foundations, potential customers, the media, etc.).

(Gioia, 1998; Whetten and Godfrey, 1998) that would allow both members and outsiders to perceive the network as a legitimate entity. Respondents in both networks were emphatic about the importance of "creating a viable-looking network organization" that could attract members, customers, and funders. Only by creating such an identity could the network successfully meet what Suchman (1995) described as the second challenge of gaining legitimacy: outreach to new, allegiant constituencies and to existing groups that can provide support. While this dimension of legitimacy could conceivably be attended to collectively by network members, our findings strongly support the idea of a lead organization taking a critical role. In our networks, this lead organization was the network administrative organization, which was the organizational embodiment of the network as a whole and its primary focal point.

The final dimension of legitimacy we uncovered focused on the network as interaction. Although effective interactions are essential to the development of all types of interorganizational relationships, they are especially critical to multilateral

networks. Relationships must be established and sustained, not just with one or two firms but sometimes with 10, 20, or more firms, many of which may be competitors. In SME networks, many member firms are themselves young and evolving and often are reluctant to establish a web of cooperative but uncertain external commitments. We found that the firms in our networks had to learn to accept the idea that cooperative interaction could create benefits for them and for the network as a whole. The interaction process itself had to be legitimized so network members would be willing to work together to build and maintain the levels of involvement and norms of cooperation that would be critical for sustaining the network (Powell, 1990).

Although our findings uncovered differences in the extent to which the two networks emphasized interactions among members, we found that, in both networks, organizers faced considerable barriers to "building a case" for network interaction, especially at first. This finding is supported by the practitioner literature on networks, which over the past decade has consistently described the U.S. SME business culture as prizes independence, competitiveness, and a belief that "sharing is bad" (Hatch, 1988; Lichtenstein, 1992: 19). Scholars have also described the "competitive ethos . . . [that] makes cooperation across . . . organization boundaries very difficult" (Browning, Beyer, and Shetler, 1995: 114). Thus, there was a tension in both networks between the desire to maintain independence and a recognition that interactions among members would be critical for network success. Legitimizing the network as interaction thus became a major challenge in both networks.

Overall, our findings suggest that multilateral SME networks do not simply build legitimacy in a single, monolithic fashion. Rather, legitimacy for the network as a whole is established along three conceptually distinct dimensions. Stated as a proposition:

P1: Multilateral networks build legitimacy along three key dimensions: network as form, network as entity, and network as interaction.

LEGITIMACY BUILDING AND NETWORK EVOLUTION

Our second two research questions focused on how legitimacy is established as networks evolve and how the legitimacy-building process and its outcomes might differ across the two networks. We found that different networks confront similar legitimacy challenges but adopt unique strategies for dealing with these challenges. Consistent with the strategic orientations literature (Hitt et al., 1997; Pan, 1997), these strategies are shaped by the institutional context of the network and result in very different approaches to building legitimacy, one internal and the other external. We refer to these alternative strategies as inside-out and outside-in (Edstrom, Hogbert, and Norbak, 1984), rather than simply internal versus external. The distinction is important and reflects the fact that while the primary orientation for building network legitimacy was clearly internal in one case and external in the other, both strategies tried to address both the internal and

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external legitimacy needs of the network, albeit from very different starting points. An inside-out strategy, for instance, does not ignore external legitimacy demands, but the legitimacy-building mechanism is largely internal in its orientation. In theory, network legitimacy would first be firmly established internally among member firms, which would then presumably lead to, or facilitate, enhanced external legitimacy. The reverse would hold for an outside-in strategy.

We also found that legitimacy building could be tracked over several loose stages of evolution, consistent with earlier life-cycle research (Kimberly, 1979; D'Aunno and Zuckerman, 1987). The five stages we identified proved to be convenient for categorizing and comparing how the two networks evolved. Table 5 summarizes our key findings on legitimacy building at each evolutionary stage, supported by interview data from representative network respondents.

Pre-network Organizational Field

Scholars have described the organizational field, consisting of the environment of related organizations within which firms operate, as a critical factor influencing the development of new organizations and networks (DiMaggio and Powell, 1983; D'Aunno and Zuckerman, 1987; Lorenzoni and Ornati, 1988; Gray, 1990; Doz, 1996). Research on organization founding has determined that conditions in the organizational field at the time of founding influence specific formation strategies (Kimberly, 1979; Wiewel and Hunter, 1985; Boeker, 1989). Our work confirms the importance of these "initial conditions" (Doz, 1996: 64) prior to network formation and indicates that they set the stage for the legitimacy-building strategies used by emerging networks. We examined three issues that seemed critical for understanding the direction that legitimacy building might take: the pre-network climate for cooperation, the legitimacy of the industry in the location where the network would emerge, and the existence of preliminary support by potential key stakeholders.

Since cooperation among firms is essential for network success, we first sought evidence that cooperation in the pre-network organizational field might already have been legitimized, thus paving the way for a smooth transition to a network. Unlike Gulati (1995) and Gulati and Gargiulo (1999), who found that trust and embedded ties are built on prior relationships, we found little evidence that this was the case, at least initially. The network density scores shown in table 6 indicate there were few pre-network ties among Alpha-net firms, especially for business and information exchanges, and ties among Beta-net firms, although more extensive, were still modest. Results of component analysis in table 7 show that pre-network ties were highly fragmented in both samples (although less so for Beta-net), as indicated by the large number of components in each network (non-interacting firms or disconnected groups of firms only interacting with each other). Multiplexity, too, was low for Alpha-net, although not for Beta-net, in which many of those firms that did interact had either two or all three types of exchanges.

Another indicator that pre-network involvement was not legitimized was that only three of the 19 Alpha-net (16 per-

Table 5

Representative Findings Comparing Legitimacy Building Processes in Alpha-net and Beta-net		
Stage of network evolution and critical factors in each	Alpha-net	Beta-net
Pre-network organizational field Legitimacy of cooperation as a competitive strategy	<i>Weak:</i> Few prior ties among members, and only 16% (3) of Alpha-net members had been a member of another manufacturing network.	<i>Weak:</i> Modest prior ties among members, and only 13% (3) of Beta-net members had been a member of another manufacturing network.
Legitimacy of the industry locally and its organizational field	<i>Weak:</i> "We [as a local industry] don't get much attention paid to us, even though there are lots of us [firms] around here!"	<i>Strong:</i> "Our state has been pretty supportive of our [local wood manufacturers'] dilemma. We've had a lot of competition come in to the state and they [government officials] want to help us beat them."
Key stakeholders	<i>Internal:</i> "I [eventual Alpha-net director] helped organize a conference to get our small wood manufacturers together to look at ways to become more competitive, and networks was one of the things we talked about. . . I had heard about them from other [small business] consultants at a meeting."	<i>External:</i> "We had an active economic development group that wanted to help the [wood manufacturing] companies in the state, so they went after, and got, a grant to help set up what they called a 'flexible manufacturing network.'"
Network formation Initial legitimacy building focusing primarily on network as form and network as entity	<i>Network as form:</i> "We had to educate the people in the state. Those folks in government didn't have a clue as to what we were about. . . they kept thinking we were another trade association. . . and we had to keep explaining that we were not!" <i>Network as entity:</i> "We didn't know what we were doing since we had no other networks to look at. . . it was sort of like starting a new business since we were creating something from nothing."	<i>Network as form:</i> "Early [Beta-net] meetings were spent talking about what we [Beta-net] were and were not. . . it was sometimes slow and frustrating since we were trying to be something different." <i>Network as entity:</i> "We [Beta-net] were one of the first [networks] in the U.S. trying to model ourselves after European networks. [The director] was good at learning what to do and not to do in setting up our structure so we could run smoothly."
Emergence of different strategic orientations for legitimacy building	<i>Inside-out:</i> "I [director] first had to prove that our organization could do something useful for the members, because otherwise what have you got to sell on the outside? I felt that we had to create a social culture of cohesion among members and with our new organization."	<i>Outside-in:</i> "All the [network] meetings in the world won't create a unified impression to the world. . . you have to build an image that you are 'more than you are' so others [outside the network] will pay attention. . . and believe you can do something important."
Early growth Clear differences in legitimacy-building strategy by NAO	<i>Network as interaction (strong emphasis):</i> "I [director] strongly believed that we had to break down barriers (between members). . . and in my mind, that meant getting folks [members] together in all sorts of ways."	<i>Network as interaction (weak emphasis):</i> "We decided that the members did not need to meet monthly as we had started out doing. . . so we went to quarterly board and annual member meetings, with the option of calling meetings in between if needed. [The director] faxed us information, and we had newsletters to keep us up on the network news."
	<i>Network as entity (NAO and network legitimacy built through strong links to internal constituencies):</i> "The gallery was a way to show members and potential members that [Alpha-net] was providing something for them. . . a tangible benefit from what [the director] was doing."	<i>Network as entity (NAO legitimacy built through strong links to external constituencies):</i> "[The director] and his staff really made strong connections for [Beta-net] with banks, the newspapers, radio and TV and got hooked in with one of the cable shopping networks so we could advertise our members' products."

(Continued)

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Table 5 (Continued)

Stage of network evolution and critical factors in each	Alpha-net	Beta-net
Growing pains/ legitimacy setbacks	<p>"The showroom puts a public face on our new group . . . people can see it [the network] rather than just showing someone a catalog."</p> <p><i>Legitimacy setback:</i> "They [Alpha-net staff] set up a member store to sell commonly used products, like hardware and certain kinds of wood, to members at a discount . . . and it would provide revenue for [Alpha-net's] operations. But some of the items sold competed with products sold by members! So . . . [the director] made sure he referred to members instead and only sold products in the store that members didn't sell themselves. Some members got a little upset that [Alpha-net] might compete with them."</p>	<p>"The amount of PR that [the Beta-net NAO] was getting . . . it's been such a high visibility organization from the beginning. By joining, I could be a part of that visibility, that PR."</p> <p><i>Legitimacy setback:</i> "We were pretty upset when [the director] gave details of our business to someone who called his office wanting to know how to start our kind of business. I don't think [the director] meant to hurt us, he was just so interested in showing off what [Beta-net] could do!"</p>
Emerging legitimacy deficiencies Overemphasis of internal or external strategic orientation	<p><i>External legitimacy deficiency:</i> "We were doing great until [a local business] bought our showroom building out from under us. We just didn't have the political clout or the money to counter the offer for the building . . . and after we had fixed it up so well. It was a real low point in our history."</p>	<p><i>Internal legitimacy deficiency:</i> "[Beta-net] has gotten away from its major focus, its members, and gotten into more bureaucracy. It has turned into big business. It seems to have followed the same old course with grants, hiring people, trying to hook into really big companies, and has not focused as much on us [member firms]."</p>
Sustainment or demise Need for both internal and external strategic orientations for network legitimacy building	<p><i>Increased outside-in orientation:</i> "Once you get one of the bigger tunas [firms] in the network, then you can go to two or three other bigger tunas and bring them in . . . this makes everybody look good . . . us [Alpha-net] and them [members]."</p>	<p><i>Collapse of internal and external support:</i> "An awful lot of [Beta-net] energy went into the [manufacturing] center, on the backs of the smaller members who saw the center idea and said, 'well, this is nice, but it is not going to do us any good.'"</p>
Continued legitimacy deficiencies result in demise of formal network	<p>"The organization is now a tangible entity again . . . and because of this our membership is growing again. Becoming tangible helps us look legitimate and real to our members, customers, and to the government as far as getting grant funding from the government."</p>	<p>"We had a number of grant proposals pending and there came a time when I [the director] said 'we are not applying for a single dollar anywhere else. These are heroic efforts we have engaged in. If what is in the pipeline comes through for us in sufficient quantity and time, then great. If it doesn't, then so be it.'"</p>

cent) and three of the 23 Beta-net (13 percent) sample firms answered positively our survey question, "Have you ever been a member of another manufacturing network?" Alpha-net was also the only SME network listed in its state (Lichtenstein, 1992), and Beta-net was one of only two networks listed in its state, both of which were formed in the same year. Thus, Alpha-net and Beta-net participants had little or no prior history of network involvement and had few existing networks to emulate. Practitioner publications on networks at that time were also describing the lack of cooperative experience among U.S. SMEs as a primary challenge for getting

Table 6

Unidirectional and Reciprocated Network Densities across Three Time Periods

	Type of exchange	Pre-network exchange density
Unidirectional†		
Alpha-net ($N = 19$)	Friendship	.0526
	Business	.0175
	Information	.0234
Beta-net ($N = 23$)	Friendship	.0810
	Business	.0592
	Information	.0613
Reciprocated ‡		
Alpha-net ($N = 19$)	Friendship	.0351
	Business	.0058
	Information	.0175
Beta-net ($N = 23$)	Friendship	.0712
	Business	.0474
	Information	.0474

* For Beta-net, this column shows exchange densities approximately one year after its demise.

† Unidirectional density score = number of single-direction links / [$n(n-1)$].

‡ Reciprocated density score = number of two-direction links / [($n(n-1)/2$)].

Table 7

Components and Multiplexity of Exchanges across Three Time Periods

	Type of exchange	Pre-network
Number of network components*		
Alpha-net ($N = 19$)	Friendship	9
	Business	15
	Information	15
Beta-net ($N = 23$)	Friendship	8
	Business	10
	Information	10
Multiplexity of member firms (number of single and multiplex exchanges)		
Alpha-net ($N = 19$)	One type	10
	Two types	8
	Three types	2
Beta-net ($N = 23$)	One type	6
	Two types	24
	Three types	16

* Higher component scores equal greater network fragmentation.

networks started (Bosworth and Rosenfeld, 1992). Given these initial conditions in the pre-network organizational field of both networks, use of interorganizational cooperation seemed to have little legitimacy as a competitive strategy.

We did, however, find differences in the pre-network legitimacy of the small-firm wood-products industry by local support groups. For Alpha-net, respondents reported that external constituencies like state legislators and public funding agencies showed little pre-network interest in the wood industry or in network development. Members told us that "our state officials just won't give us the resources or attention we need

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Table 6 (*Continued*)

1994-95 Exchange density	% Change	1997-98 Exchange density*	% Change from 1994-95
.2456	+367	.1764	-28
.0585	+234	.0915	+56
.2164	+824	.1764	-19
.1186	+46	.1316	+11
.0810	+37	.0468	-42
.1008	+64	.0965	-4
<hr/>			
.2339	+566	.1567	-33
.0292	+403	.0588	+101
.2105	+1,103	.1569	-26
.1146	+61	.1169	+2
.0712	+51	.0234	-67
.0869	+83	.0643	-26
<hr/>			

Table 7 (*Continued*)

1994-95	% Change from pre-network	1997-98	% Change from 1994-95
4	-56	2	-50
6	-60	4	-33
4	-73	2	-50
6	-25	7	+17
7	-30	11	+57
6	-40	5	-17
<hr/>			
7	-30	14	+100
58	+625	24	-59
19	+850	25	+32
5	-17	19	+280
29	+21	25	-14
36	+125	14	-61
<hr/>			

... they even go out of state to try and bring in big companies that would compete with us, rather than try to help us become more competitive ... it's frustrating!" Beta-net respondents, in contrast, described external constituencies' active interest and involvement in the local wood industry: "Our state has been pretty supportive of our [local wood manufacturers'] dilemma. We've had a lot of competition come in to the state and they [government officials] want to help us beat them," and "We were lucky since we were already tied in with the economic development group. . . . They really helped us get off the ground, both financially and with the community." In summary, Alpha-net members

viewed their industry locally and its broader SME organizational field as having low legitimacy prior to network formation. Beta-net members, in contrast, described strong pre-network support for their local industry and its organizational field.

Finally, we found clear differences in the types of pre-network constituency groups that would soon form the bases of support for each network. For Alpha-net, pre-network support came from internal stakeholders, primarily organizations that could potentially "share an interest or stake in the outcome" (Finn, 1996: 154) of network participation and could potentially become active participants in the network process once the network formed. An Alpha-net respondent commented,

A small group of us got together with [the consultant who became Alpha-net's first director] after the conference and discussed how to help ourselves and our industry become more competitive. We had a long list of ideas from the conference participants . . . and one of them was to look into the network idea. It was only an idea at that time.

In contrast, pre-network support for Beta-net was primarily from external groups like government, foundations, or financial organizations that would not actually become network members. Beta-net respondents commented, "There was a foundation that apparently wanted to help our industry and they somehow heard about networks as a possibility and looked into them," and "We had an active economic development group that wanted to help the [wood manufacturing] companies in the state, so they went after, and got, a grant to help set up what they called a 'flexible manufacturing network.'"

Overall, our findings on the pre-network organizational field provided evidence as to the legitimacy needs of the two emerging networks. Both networks would have to legitimize the network form, since formal networks were mostly an unknown to the firms, and more informal cooperation, particularly among direct competitors, was not commonly used. Beta-net could rely on the support of powerful groups outside the industry who could provide resources and legitimacy from the start. Alpha-net, however, would have to rely on the strength of the commitment and involvement of its early members to build its legitimacy.

Network Formation

Our findings, supported by the practitioner literature on networks (Bosworth and Rosenfeld, 1992; Lichtenstein, 1992), suggest that for a network to succeed, a critical step at the time of formation is to establish the legitimacy of the network concept, or network as form. This legitimacy must be conveyed both to outsiders, who might offer support to the fledgling network, and to new and potential member firms, which may be unsure about the value of a network.

In our interviews, Alpha-net and Beta-net participants often discussed the importance of building acceptance of the network concept early on. An Alpha-net respondent commented, "We had to educate the people in the state. Those folks in government didn't have a clue as to what we were about . . .

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they kept thinking we were another trade association . . . and we had to keep explaining that we were not!" The director noted, "What I didn't try to do was go in and . . . define anything specifically. What I wanted to do was introduce the network concept and then allow it to develop its own dynamic." Similarly, a Beta-net respondent stated, "What do we know about this cooperation stuff? Then [the director] told this story about all the good things that happened in Italy . . . how small manufacturers were really doing well because of these networks. So Italy and the Italian model were used as a selling tool for the idea." A second Beta-net member described how "the early [network] meetings involved our talking about the network idea and how it might work for us. [The director] had some selling to do!"

The primary mechanism for establishing the legitimacy of the network as form was through the actions and credibility of the network administrative organization. Yet the NAO was itself new and unknown. Thus, at the same time that legitimacy had to be built for the network as form, it also had to be established for the network as entity. Alpha-net members commented, "We didn't know what we were doing . . . it was sort of like starting a new business since we were creating something from nothing, which was fun, but we also knew that the way it [the NAO] looked to others would make a difference in whether they joined or not, or whether it worked or not." As a Beta-net respondent told us, "We were one of the first [networks] in the U.S. trying to model ourselves after European networks. [The director] was good at learning what to do and not to do in setting up our structure so we could run smoothly and look professional from the start." Descriptions of the genesis of similar U.S. networks support our findings, describing the "difficulties of a start up" network organization and the challenges of designing "administrative systems" that "unlike conventional [systems must] work under multi-party circumstances" (Lichtenstein, 1992: 31, 55; see also Wiewel and Hunter, 1985).

As with legitimacy building in organizations, legitimacy of the network as entity in both networks was built by adopting familiar organizational structures or structures that mimicked those used in other networks (Meyer and Rowan, 1977; DiMaggio and Powell, 1983). For instance, during formation, the NAO in both networks was set up with a paid director and staff, although Alpha-net hired a part-time director and one part-time staff member while Beta-net had a full-time director and three staff members. Both networks developed mission statements, by-laws, boards of directors, and established a nonprofit status for the NAO. As one Beta-net respondent stated, "[The director] investigated how other networks were organizing, which helped a lot." Thus, the director and members of both networks moved quickly at formation to create a viable administrative entity that had a recognizable form, or what Scott (1995: 47) referred to as building legitimacy through "cognitive consistency." This entity could then promote the network concept while managing network activities and growth.

Up to now, we have discussed legitimacy-building strategies during network formation with only passing reference to the

role of key stakeholders, but there were significant differences in the different groups of key stakeholders dominant in the pre-network organizational field of the two networks: internal stakeholders for Alpha-net and external ones for Beta-net. During formation, these stakeholders had a major impact on the overall legitimacy-building strategy of each network in ways that were consistent with the stakeholders' own perspective and with conditions in the network's organizational field.

As Alpha-net's new administrative organization formed, key internal stakeholders in the pre-network organizational field, namely, the founding members, became the primary drivers of network formation. These stakeholders focused on the need to facilitate interactions among similar firms that could relate shared experiences and "share common peril." The orientation of the consultant-turned-director during network formation reflected this internal legitimacy-building emphasis: "I am saying that the way to do this [establish Alpha-net] is to first provide a continuing forum through which the socialization process can occur, which gets members past individual opportunities or obstacles." Alpha-net founding members invested their own time and money and "went out on the road" to solicit members, again focusing on internal legitimacy-building activities: "We had to get out on the road, and find out . . . who was doing what and where. We would talk to them [potential member firms] about what we were doing with [Alpha-net] and how they might learn from others in the same business if they came to meetings." Thus, network legitimacy during formation was conferred primarily from inside the network, through an inside-out strategic orientation. Legitimizing interactions among network members (network as interaction) also started to develop at formation, as the core member firms learned to work together, as well as with the NAO, right from the start.

In contrast, our findings indicated that key external stakeholders in the pre-network organizational field of Beta-net were critical for establishing the legitimacy of the network during its formation, leading to an outside-in approach to legitimacy building. For instance, Beta-net's director was hired from outside the state through a national search. The new director even characterized himself in ways consistent with our definition of an external stakeholder: "I knew about . . . setting up associations . . . but not about wood manufacturing. If I knew too much about wood products, it would get in the way." Early members were solicited not only from small wood manufacturers but also from major suppliers and large wood manufacturers, with an eye to "building up [Beta-net] credibility" through what Kilduff and Krackhardt (1994: 89) referred to as the "reflected glory" of these already legitimate organizations. These members could not only attract other, similar members but could also attract media attention and give the "right signals" to key external constituents such as banks and foundations that the network idea was a credible concept (network as form).

Since Beta-net's overall strategy was to build legitimacy through the support of external stakeholders, developing strong relations among member firms (network as interac-

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tion) became less of a priority than developing these external ties. Beta-net's director interacted with potential member firms to convince them to join, and early meetings of members were set up. But members perceived that the director used these meetings more as mechanisms for building support for the network concept and for the NAO itself, rather than as a way of enabling member firms to understand and learn about each other. A charter member commented,

Although [the director] first sold me on the network idea as a way to "network" with each other, what really happened right from the beginning was that he hammered on how we could make connections around the state . . . and even the country . . . for money, for technology, for what was coming down from Washington [DC] that could affect our industry, and more, through his office.

The Beta-net director stated, "You've got to establish credibility for these types of networks fast, and one way to do this is to show members the types of associations [relationships] we [Beta-net staff] can establish for them, not only with each other, but with politicians, key suppliers . . . and many other important organizations."

Thus, Beta-net's legitimacy was built primarily from the outside. The legitimacy of the network as entity focused almost exclusively on establishing the credibility of the NAO, which was the sole network contact point for external support groups. Legitimizing the network as interaction received only minor attention at this point. It is important to note, however, that Beta-net's outside-in strategy was not meant to ignore the legitimacy of interactions. Rather, it was a strategy designed to build internal strength and credibility through external success.

We conclude from our results that during network formation, initial legitimacy building focuses primarily on the network as form and network as entity, regardless of strategic orientation. Consistent with the literature on strategic orientations, which holds that key managerial decisions reflect the constraints of the organizational context, the specific network legitimacy-building strategy that is adopted at formation will be determined by key stakeholders in the network's pre-organizational field. Stated as propositions:

P2: Legitimacy building during network formation will emphasize legitimizing the network as form and network as entity, regardless of the network's strategic orientation.

P3: The overall strategic orientation of the network for building legitimacy (inside-out versus outside-in) that emerges during network formation will reflect the needs and interests of the dominant stakeholders in the pre-network organizational field.

Early Growth

The period of early growth in the two networks after founding was characterized by growth both in the number of members and in accomplishments. We found that either approach to legitimacy building, inside-out or outside-in, can be successful during early growth and that the strategy adopted tends to carry forward and become solidified. This is consistent with Stinchcombe's (1965) idea of organizational imprint-

ing, in which environmental and contextual factors at founding affect the early direction and structure of a firm and then become institutionalized, determining subsequent strategic decisions (Boeker, 1989).

Our findings also revealed both similarities and differences in how network legitimacy was built during early growth. At Alpha-net, the inside-out strategy pursued by the NAO during network formation continued. External funding was kept to a minimum, used only for specific projects, like trade shows, and not for network operations. The primary source of operating funds was the "several hundred-dollars" annual dues, which increased legitimacy from within, consistent with Hechter's (1987) argument that group solidarity is a function of individual resources committed for collective goals. An Alpha-net member said, "We wanted to have the members [financially] support the operation of [Alpha-net], so they would have their own skin in the game! This also looked good to members and to potential members." Alpha-net's strategy of building legitimacy from the inside-out was exactly what member firms wanted. As one Alpha-net respondent commented, "[The director] was real good at avoiding politics, promotions, or money with lots of strings attached. He worked on that very diligently . . . and that suited us [members] to a 'T'!"

Alpha-net's principal mechanism for spurring growth at this stage was the showroom. It was intended to focus on the immediate needs of members to enhance sales, but it also served as a critical legitimacy-building mechanism. An Alpha-net respondent commented, "The showroom puts a public face on our new group . . . it is much easier to talk to potential members about what the network is about with the gallery to show them." Alpha-net's NAO was able to work closely with members to set up a new physical entity that represented, in a very concrete way, the network itself (network as entity) and its possibilities (network as form). In so doing, the NAO clearly established its own legitimacy as well (network as entity).

Beta-net's director and staff, which emphasized outside-in support during network formation, continued at this stage to build the legitimacy of the network externally, by establishing links to large visible suppliers, public officials, grant sources, other national networks, and the media, while building membership. Although dues were assessed at formation, they were very low (\$25 per year) and were often not collected as the network grew. Instead, the director used his considerable energy to draw on the external links he was establishing to "build a professional looking organization," as he described it, which he felt was critical for ultimate network success.

Beta-net's director did not ignore the internal needs of members, although he tried to build enthusiasm for his long-term vision of what the network might be (network as form), rather than focus on the shorter-term needs of member firms. For instance, a member showroom was "suggested by many [Beta-net] members and others" but not pursued by the director, who considered the idea too limited to satisfy enough members and a drain on network resources at a time

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when it was trying to build momentum. Resources were used instead for developing a professionally produced directory and a catalog of members' products, both of which brought external visibility to both the network and the NAO. Beta-net management emphasized what it did best, emphasizing external sources of legitimacy and presuming that by building its own legitimacy, benefits to member firms would follow. Unlike Alpha-net, Beta-net's NAO viewed itself as the "entity" that was to be legitimized, building its own credibility with outsiders and assuming its own success would ultimately legitimize the full network.

We also found key differences at this stage in the network as interaction that would ultimately have a significant impact on the capacity of the networks to be sustained. While some Beta-net firms had had interactions with each other prior to network formation, most participants of Alpha-net and many of Beta-net were interacting for the first time. At the formation stage, the main form of interaction, especially in Beta-net, was between the new members and the NAO, primarily as a means of legitimizing the network form and the NAO itself. Preliminary interaction among members in both networks was initiated and facilitated by the NAO through meetings, newsletters, and the like. During its early growth, however, Alpha-net, with its strong internal orientation, began to move well beyond "testing the waters" for potential partners and toward working together and establishing the trust and commitment characterizing the successful dyad relationships studied by Larson (1992), Uzzi (1997), and others. As an Alpha-net respondent described it,

[The director] really played up the importance of regular meetings . . . and from those meetings, I've learned not to be so afraid of the competition. At first, you want to be real cautious about what you say and do, but in most cases you find that your competitors are really not what you think. I've found out that instead of "a network of the competition," we actually have a "network of people in like businesses."

In Beta-net, members were encouraged to work together, but the energies and attention of Beta-net staff were externally directed. Beta-net had an advantage over Alpha-net in developing relationships among members, since a number of its firms had worked together prior to network formation. In addition, although all firms were in the wood-processing industry, few were direct competitors, easing the difficulties of legitimizing and building cooperative interactions that Alpha-net faced. Despite these advantages, Beta-net's interactions during early growth did not develop as they did in Alpha-net. While Beta-net's NAO encouraged cooperative interactions among member firms, its external orientation limited its emphasis in this area. For instance, to ease internal administrative burdens during early growth, Beta-net's director dropped the monthly meetings held at formation in favor of quarterly meetings. The NAO also favored communicating with members by fax. In general, the strong inside-out strategy adopted by Alpha-net lent itself far better to building and reinforcing the legitimacy of the network as interaction than the external orientation of Beta-net.

The differences in emphasis on building and legitimizing interactions among member firms can be clearly seen in the results presented above in tables 6 and 7, which show the evolution of friendship, business, and information exchanges among our sample firms. Pre-network densities (table 6) for all three types of exchanges, whether counting every unidirectional tie or only those that were reciprocated, were lowest for Alpha-net. By the time of our initial data collection at the end of the early growth stage (1994–95), interactions among core member firms had grown for both networks for all three types of exchanges, although business exchanges, which often require significant resource commitments, lagged behind friendship and information exchanges. What was most striking was the difference between networks in the evolution of interactions. Not only was involvement (density) among Alpha-net firms strong, even as its legitimacy crisis was unfolding during the 1994–95 period, but the increase in involvement for all three types of exchanges was truly impressive and far exceeded that of Beta-net. In addition, the number of network components in Alpha-net for all three types of exchanges dropped by more than half during this early growth period, resulting in a network in 1994–95 that was more consolidated than Beta-net. Multiplexity based on all three types of exchanges remained stronger in Beta-net, but the percentage change in multiplexity was much greater for Alpha-net.

Despite the fact that both networks were successful in building legitimacy during formation and early growth, albeit in different ways, this process was not always smooth and involved setbacks. For instance, as an Alpha-net participant described it,

They [Alpha-net staff] set up a member store to sell commonly used products, like hardware and certain kinds of wood, to members at a discount . . . and it would provide revenue for [Alpha-net's] operations. But some of the items [Alpha-net] sold competed directly with products sold by members! Some members got a little upset that [Alpha-net] might compete with them.

Similarly, a Beta-net respondent commented, “We were pretty upset when [the director] gave details of our business to someone who called his office wanting to know how to start our kind of business. I don’t think [the director] meant to hurt us, he was just so interested in showing off what [Beta-net] could do!” Growing pains and legitimacy setbacks such as these illustrate that network legitimacy building is not a task that is ever actually completed (Suchman, 1995; Deephouse, 1996) but, rather, fluctuates over time as networks evolve. Thus, an important issue during early growth is monitoring the evolution of legitimacy so that minor setbacks do not create major legitimacy crises.

Consistent with the literature on strategic orientation (Hitt et al., 1997; Pan, 1997), our findings indicate that during early network growth, emphasis on internal versus external legitimacy building remains consistent with early imprinting from the pre-network organizational field. Legitimizing the network as form and the network as entity continues. Legitimizing the network as interaction becomes increasingly important

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regardless of differences in strategic orientation, although it is more readily established when an inside-out strategy is adopted. Finally, growing pains and temporary legitimacy setbacks are not uncommon. Stated as formal propositions:

P4: Networks adopting either an inside-out or an outside-in legitimacy building strategy during network formation will maintain that strategic orientation during early network growth.

P5: During early growth, networks with an inside-out strategic orientation will primarily emphasize legitimizing the network as interaction and the network as entity. Legitimacy of the network as entity will depend on the ability of the NAO to work closely with member firms to establish a recognizable network identity.

P6: During early growth, networks with an outside-in strategic orientation will emphasize building legitimacy of the network as interaction significantly less than networks with an inside-out orientation. Building legitimacy of the network as entity will have high importance and will be based heavily on legitimizing the NAO itself, primarily through attracting external support.

Emerging Legitimacy Deficiencies

Models of the evolution of networks and alliances frequently incorporate a development stage in which network decision makers face decisions about network conflicts and even dissolution (D'Aunno and Zuckerman, 1987; Gray, 1990; Niederkofler, 1991; Zajac and Olsen, 1993; Doz, 1996). For instance, D'Aunno and Zuckerman (1987) suggested that characteristics of network growth, such as dependence on centralized management, influence whether members continue to participate or choose to withdraw. Our research did not reveal an unequivocal "critical crossroads" stage faced by each network, but our findings did suggest that continued emphasis on the type of legitimacy-building strategy emphasized, and proven successful during network formation and growth, can lay the groundwork for a major crisis and possible dissolution.

After successfully building legitimacy across all three dimensions through formation and early growth, Alpha-net suffered a major legitimacy crisis when its showroom building was sold unexpectedly. Alpha-net had neither sufficient external legitimacy to block the sale nor sufficient funding from external sources to counter the offer that was made. The network suddenly became a group of firms with no obvious focal point for its activities, and membership declined substantially.

The absence of external support appeared to be the main reason for Alpha-net's precarious situation. A number of member firms quickly explored additional support from within and outside the membership. But external organizations did not act as though Alpha-net were a permanent, legitimized community resource, and no outside groups were willing to help relocate the showroom. According to one informant, the network's internal constituents, both firms and staff, had to "re-group and decide what direction we should go in. Without that gallery, we were going to have a hard time keeping [Alpha-net] going." An Alpha-net respondent told us, "We were doing great until [a local business] bought our show-

room building out from under us. We just didn't have the political clout or the money to counter the offer for the building . . . and after we had fixed it up so well. It was a real low point in our history." While the crisis was clearly tied to the network's capacity to attract resources, it was the legitimacy of Alpha-net as an entity, or the lack of it, in the eyes of those who controlled resources that turned a difficult situation into a threat to survival. With minimal external legitimacy and support, the NAO and member firms could do little to prevent the crisis, creating substantial internal uncertainty and pointing out the network's obvious legitimacy deficiencies.

In contrast, Beta-net's outside-in strategy led to deficiencies in internal support. While respondents described the NAO as instrumental in facilitating discussions about common problems, they also raised concerns about the network's value to its member firms. A Beta-net respondent commented, "[Beta-net] has gotten away from its major focus, its members, and gotten into more bureaucracy. It has turned into big business. It seems to have followed the same old course with grants, hiring people, trying to hook into really big companies, and has not focused as much on us." The approach that was at first helpful for building the network's legitimacy was now causing network members to question whether their interests were really being represented. Many members were starting to realize that the external support received by the NAO was not resulting in direct benefits to them. The legitimacy of the network as form and network as entity remained strong with external stakeholders, but not among member firms, who were increasingly seeing the NAO and the network as superfluous to their own success. A respondent stated,

Another thing was that there was no obvious hub of economic activity [within Beta-net]. I think a local network organization is like trying to decide where the boundaries of a town should be. You have a crossroads and a stoplight, then that's the center of town. That's where folks meet. It's pretty obvious. For us, we had no obvious center of town.

In general, our findings indicate that sources of support that were emphasized, and indeed were helpful, during formation and early network growth can lead to legitimacy deficiencies as the network evolves and its needs change. These deficiencies can sometimes be overcome, resulting in a stronger network, but they may also set the stage for dissolution of the network.

Sustainment or Demise

After its crisis, Alpha-net members and administrative staff recognized that their previous internal focus and reluctance to depend on outside resources would not provide enough ongoing support to sustain the network. In response, a new director was hired who specifically targeted his national contacts for network promotion. An Alpha-net member commented, "We were relying on our membership to care for the nucleus . . . and it didn't work. That's when [the director] started putting in work for government grants . . . to not be

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so tied to all the membership. Money's back in the bank . . . [and] we have a new tack to go on."

Using a newly acquired external grant, Alpha-net purchased a building for a second showroom and member store. The showroom had an immediate impact on generating new revenues for network operations and members. It also generated additional external support from community members and local banks, who now perceived Alpha-net as a viable organization. Alpha-net's director commented, "Once we got that grant and the new showroom building, we started publicizing our activities to the media, politicians, and industry." A member stated, "We wanted a storefront to be our public face. When we had legislators in our area or any type of political activity, we'd call the people and invite them to stop by, meet our executive director, and take back some information on [Alpha-net]." Another member commented explicitly on the importance of the new external orientation for legitimizing the network as entity: "The organization is now a tangible entity again . . . and because of this our membership is growing again. Becoming tangible helps us look legitimate and real to our members, customers, and to the government as far as getting grant funding from the government."

Alpha-net decision makers also focused on other changes to prevent any further decline in legitimacy. For instance, membership criteria shifted to attracting large suppliers and complementary product firms, and funding structures were put in place to incorporate large external grants for network projects and operations. As one member described it:

That was another problem for [Alpha-net] . . . the smaller guys were the first in the organization. But the bigger companies bring in [to Alpha-net] their management skills, experience, financial wherewithal, and prestige. Once you get one of the bigger tunas in the network, then you can go to two or three other bigger tunas and bring them in. . . . this makes everybody look good.

Overall, after being forced to recognize its external legitimacy deficiencies by coming close to collapse, Alpha-net adopted an outside-in survival strategy while continuing to maintain the inside-out strategy that had worked so well to legitimize the network during its formation and early growth.

At the time of our initial data collection, Beta-net had not experienced any real crisis of the sort faced by Alpha-net (loss of a showroom). But it was apparent that Beta-net was experiencing a significant lack of internal support, which had to be overcome. Beta-net's strategy to overcome its legitimacy deficiencies was most apparent in its pursuit of funding for the establishment of a new regional manufacturing center. Through his external connections, the NAO's director was given a substantial grant to investigate the potential for this center. Beta-net management viewed this as an excellent opportunity for network members and promoted the possible center in its newsletters and other communications. Later, Beta-net management assembled a manufacturing center advisory board consisting of most of the firms we sampled. This "core group" of firms, which met or communicated at least monthly, was formed to discuss internal network affairs related to the potential manufacturing center, similar to

Alpha-net's original steering committee. It would also serve the purposes of strengthening the bonds among key members (network as interaction) and establishing the role of an activist NAO concerned with the well-being of member firms (network as entity). At the same time, Beta-net continued its primary external focus through its plans to use the manufacturing center as an ongoing source of network revenue by charging user fees to non-members.

Despite the NAO's success in attracting preliminary funding for the technology center, some respondents expressed concern for how the center would meet members' needs. One member said, "I'm not sure that the center is what most members want. . . . I guess I'm not sure how I would use it." Another stated, "It was very much a self-interest situation. An awful lot of [Beta-net] energy went into the center, on the backs of the smaller members who saw the center idea and said, 'well, this is nice, but it is not going to do us any good.'" In effect, Beta-net approached its internal legitimacy challenge not by attempting to respond to members' actual needs but by trying to impose its vision of what was needed to build a successful network. That vision meant building on its external legitimacy to attract funds and opportunities that would presumably benefit member firms.

At this point, in addition to suffering declining internal legitimacy for the network as entity and network as interaction, Beta-net's activities appeared to have a detrimental effect on members' support of the network concept (network as form), though this was not true for all members, one of whom remarked, "The idea of a network was the most effective thing about [Beta-net], but putting the idea into place was not." For other members, however, the network concept had lost its legitimacy. One member stated:

A lot of the [Beta-net] project could be identified as social engineering. "What we are going to do is to restructure how these small businesses operate." "Social engineering" is a big word for me because I just graduated from high school, but I do understand what it is . . . and I am not too impressed with it at this point.

Another respondent commented, "It appears that the concept of manufacturing networks may not be as popular in the U.S. as it was five to seven years ago . . . and I can see why. I mean how many of these networks are successful? Not many from what I understand!" A third Beta-net member quipped, "The European model. I'm not too hot on it anymore. That's one reason some of my relatives left Italy some time ago. . . . the government or somebody else knows best? I think not!"

About one year after our initial data collection, Beta-net's director "began seeing the writing on the wall." As he said, "We had a number of grant proposals pending and there came a time when I said 'we are not applying for a single dollar anywhere else. These are heroic efforts we've engaged in. If what is in the pipeline comes through for us in sufficient quantity and time, then great. If it doesn't, then so be it.'" At that point, Beta-net "went into hibernation . . . into stasis . . . to conserve our strength in case the grants came through." As grant award deadlines passed, Beta-net management

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moved operations to the director's home, put files in storage, and held its final board meeting, where "we made sure all our accounts were cleared up and signed, and that we submitted all the necessary documents to the state. . . . it was an orderly and honorable wind down of operations."

Beta-net's weak internal focus and subsequent lack of legitimacy was clearly evident during dissolution. For one thing, only 12 of the 19 core member firms we surveyed in 1997-98 even indicated that they had been aware of the possible loss of funding six to twelve months prior to closure. One member commented, "Nobody contacted me to try to save [Beta-net]. When the major source of funding dried up, so did the organization." In fact, only four of the firms we surveyed reported that they actively worked to try and save the network. The others gave a range of reasons for not helping, such as "since [Beta-net] got so much government money, we figured it would only last as long as the money lasted, so why bother to try and save it?" Several others commented on the network's "lost focus" or "shift in focus" away from the members. A third group was more fatalistic and took the position that small firms like those in Beta-net could really do little to help the network survive, since they could not be expected to "overcome the whims and wishes of government funders."

The findings from both networks indicated that early efforts to build legitimacy tend to be either internally or externally oriented, but not both, and that either can be successful. We also concluded that ultimate network sustainment could only be accomplished through a broader legitimacy-building strategy that addressed both internal and external stakeholders. Yet in view of pre-network conditions, the imprinting that takes place at network birth (Stinchcombe, 1965), and the difficulty in developing dual strategies when first getting started, equal emphasis on both internal and external constituents as a way of building legitimacy is unlikely and did not occur in either of our networks. Unlike Beta-net, however, Alpha-net was able to develop more of an external focus to complement its basic inside-out strategy. This was accomplished through the efforts of a new NAO director, who was not wedded to the same inside-out strategic orientation as his predecessor.

Although other scholars have concluded that external legitimacy is most critical for successful evolution (Wiewel and Hunter, 1985; Singh, Tucker, and House, 1986), our findings on network sustainment indicate otherwise, suggesting that while all three dimensions of legitimacy must be established if the network is to succeed, a strong and early inside-out emphasis is more likely to achieve this goal than an early outside-in focus. While legitimacy for the network as form and the network as entity can be readily established using an external strategy, legitimizing the interactions among members appears to be more problematic. A strong outside-in orientation appears to be based on the presumption that members' interactions will develop as a consequence of success in raising money, generating customers, and the like and that external success will then legitimize the interaction process. This might well have occurred if Beta-net had been able to

continue to raise outside funds, although the weak emphasis on interactions throughout Beta-net's history suggests otherwise. Our results indicate that when external support for the network dries up, the absence of strongly legitimated interactions undercuts the legitimacy of the other two dimensions as well, resulting in lack of support by member firms and ultimate collapse of the network.

We also found evidence that an outside-in strategic orientation may well have an impact on what might be referred to as post-network sustainment. Although former members continued to interact with one another through friendship and even information exchanges one year after Beta-net's collapse (see table 6), business exchanges dropped substantially from the 1994–95 period, falling below what was reported during the pre-network stage. Beta-net also experienced increased fragmentation during the post-network period (table 7), especially for business exchanges, and the percentage of firms maintaining all three types of exchanges (multiplexity) fell by more than 60 percent. Contrary to what might be predicted based solely on a structural analysis, the more multiplex ties that Beta-net maintained were apparently not sufficient to prevent the demise of the formal network once the NAO failed. In sum, the lasting effect on network sustainment of Beta-net's external strategy for legitimacy building was mostly negative across all three dimensions. After more than six years of effort, the formal network and its NAO had dissolved (network as entity), many members no longer believed in the network concept (network as form), and business exchanges among former members were fewer and weaker than before the network was formed (network as interaction).

Unlike Beta-net, Alpha-net actually showed declines in density scores for both friendship and information exchanges between 1994–95 and 1997–98. But these declines were coupled with continued increases in business-exchange density, suggesting that network-member firms used friendship and information exchanges to test and legitimize relationships with competitors before committing to more risky business ties, consistent with Larson's (1992) findings. It also indicates how long it can take to establish trust among competitors, reinforcing our conclusion that building internal legitimacy early on is critical for ultimate network success and sustainment. Based on our findings, we conclude by proposing the following propositions:

P7: For networks to be successful in moving from early growth into sustainment, the legitimacy of the network as form, the network as entity, and the network as interaction must all be established.

P8: Networks having an inside-out strategic orientation are more likely to be successful in establishing the legitimacy of the network as interaction than networks having an outside-in strategy.

P9: Networks seeking long-term sustainment must adopt a dual legitimacy-building strategy, emphasizing both outside-in and inside-out strategies, although not necessarily equally, if legitimacy across all three dimensions is to be maintained.

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Interestingly, only seven of the 19 Beta-net respondents described the Beta-net closing as a failure. One of these respondents commented, “[Beta-net] very much failed the membership. I don’t think there was a clear understanding of what [Beta-net] was from the beginning.” Those members that did not consider the network’s closing as a failure used terms such as “abandonment,” “disappointment,” and “demise.” As one Beta-net respondent commented, “Maybe we shouldn’t have looked at [the NAO] as the network itself, but as an entity that is a proponent of the idea of networking.” In Beta-net’s case, the modest legitimacy of the network as interaction was at least partially sustained through friendship and information ties among former members. It is for this reason that we use the term “dissolution” or “demise” of the network, rather than “failure.”

DISCUSSION AND CONCLUSIONS

This study has explored the ways in which multilateral networks of small and medium-sized manufacturing firms form, grow, and ultimately move toward either sustainment or demise, focusing on how legitimacy is built as networks evolve. Our data from two networks in the same industry suggest that networks tend to have similar patterns of evolution and develop similar legitimacy requirements across three dimensions. Despite similarities, however, networks go about building legitimacy in different ways, developing an inside-out or outside-in strategic orientation in response to the demands and expectations of key stakeholders just prior to network founding. While early network legitimacy can be attained using either strategy, network sustainment appears to depend ultimately on adopting both strategic perspectives.

The study contributes in a number of ways to the literatures on networks, legitimacy, and evolution. First, the study contributes to the growing empirical literature on legitimacy, not only by focusing for the first time on networks but by demonstrating that network legitimacy is a multidimensional concept. This is similar to recent work by Ruef and Scott (1998), who found that both managerial and technical dimensions of legitimacy were critical for the survival of hospitals. The three dimensions we uncovered—network as form, network as entity, and network as interaction—were related but clearly identifiable constructs upon which future network research can be based.

Second, our findings suggest that when networks are formally constructed and organized from scratch, like Alpha-net, Beta-net, and other multilateral networks, the dynamics of evolution are likely to be different than for alliances and joint ventures, which typically emerge from previous business ties. Since many of the organizations involved in a new multilateral network may have had little prior interaction with one another, embedded ties, based on trust, cooperation, and other aspects of identification and commitment that would normally stem from prior business exchanges, are not likely to be present. Instead, our data from both networks indicate that in early growth, friendship and information exchanges grow most rapidly, with business exchanges developing at a slower pace. In successful networks like Alpha-net, once

friendship and information exchanges are well established, trust-based business exchanges gradually assume a much more important role. In the absence of prior economic exchanges with one another, new network members have little reason to trust the other member firms, especially when many are competitors. In this case, the network, usually through the NAO, must legitimize members' interactions, which may take a number of years. This cautious process seems especially critical for networks of small firms, which have few slack resources to fall back on if it turns out that their trust has been misplaced.

These findings have important implications for the study of embeddedness. We have shown, for instance, that the context for establishing embedded ties can be formally constructed and that the process of network building, once sufficiently legitimized, can itself contribute to the embeddedness of member firms. Our findings also modify recent conclusions reached by Uzzi (2000) that embeddedness reduces the need for formal governance mechanisms, like an NAO. In our networks, embedded ties would have been few for Beta-net members and would not have occurred at all in Alpha-net had it not been for a legitimized formal governance structure—the network as entity. Only once these ties became strongly embedded, as in Alpha-net, is it possible that formal governance might then not have been needed. In general, for embedded ties to develop, interactions must first be legitimized. In contrast to work by Gulati and Gargiulo (1999), our findings suggest that embeddedness is not always based on pre-network interactions and that its evolution can be enhanced through formal, legitimized network structures. Our findings from Beta-net suggest also that formal network structures can have a strong effect on what Dacin, Ven-tresca, and Beal (1999) referred to as disembeddedness. Multiplex network ties, as well as the legitimacy of the process of interaction, can readily unravel once the governance mechanism that holds the network together has lost its legitimacy.

Third, our findings provide further evidence that transaction cost economics (Williamson, 1981) may not be entirely appropriate for understanding networks. Our findings from Alpha-net indicate that many of that network's early formation activities were internal, focusing on building legitimacy primarily among member firms. This approach was costly in time and in external resource opportunities that were sacrificed. Despite these inefficiencies of transacting and organizing, the network's strong internal support and bonds of commitment among members put it in a stronger position to sustain itself than did Beta-net, which was far more efficient. This conclusion supports arguments by Zajac and Olsen (1993) and Uzzi (1997) that less efficient choices for alliance formation can be justified by the added value ultimately created for member firms.

Fourth, our findings have important implications for understanding network failure. Despite their popularity and apparent success, networks can and do collapse. To find out if the demise of Beta-net was an anomaly, we contacted the remaining 25 of the 27 SME networks from which we select-

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ed our sample (Lichtenstein, 1992). Of the 24 network organizers we were able to contact, only nine (38 percent) active networks (including Alpha-net) remained as of 1998, with most of the other 15 organizers describing their network organizations as "closed." Thus, it seems important not to think of networks as an easy way for SMEs to improve their competitiveness. Networks can work but often do not. As we found here, achieving success and sustainment depends on a long process of building legitimacy across three conceptually distinct dimensions and being able to overcome significant challenges based on critical legitimacy deficiencies.

Fifth, the study modifies the point made often in the literature on legitimacy building that external support is critical in the early stages of evolution (Kimberly, 1979; Wiewel and Hunter, 1985; Singh, Tucker, and House, 1986). Our Alpha-net findings demonstrate that building legitimacy through outsiders is not required initially, as long as support exists internally. In fact, though both internal and external network support are eventually needed, building the three dimensions of legitimacy from the inside-out may be a more effective strategy in the long run than trying first to gain outside support. As long as internal network members find value in their membership, they will provide resources and support. This strategy may ultimately lead to greater external support as well, once the network is firmly established. But if network organizers focus primarily on outside-in legitimacy building, assuming that members' needs and preferences will be met through external success, they run the risk of having little or nothing to fall back on in the event that external support is withheld or reduced.

The findings led us to conclude that sustainment was most likely for networks adopting a dual legitimacy-building strategy. We do not, however, mean to suggest that to avoid a major legitimacy crisis, networks should adopt both internal and external strategies at formation. In view of the substantial legitimacy challenges facing new networks, it seems unrealistic to adopt a dual strategy until a primary legitimacy base, either internal or external, is reasonably well established. Successfully growing networks might, however, attempt to move quickly to solidify their primary base of support and then work proactively on their area of legitimacy deficiency to head off a crisis before it happens. This shift in strategic orientation may require a change in network leadership, as was the case with Alpha-net, as a way of breaking free of the strategic imprinting discussed by Boeker (1989).

Finally, this research extends our previous work (Human and Provan, 1997) in a number of ways. First, the new research was longitudinal, allowing us not only to examine what structures and processes seem to be working but also how they evolved. Second, while the earlier study examined the firm-level outcomes of network membership, the research reported here focused on network-level outcomes, specifically, network success or dissolution. The findings on Beta-net suggest that positive firm-level outcomes in early network growth cannot explain the ultimate fate of the network. Third, this paper focused on legitimacy building as critical to network success, while the earlier study addressed legitimacy

only as one of many firm-level benefits of network involvement. It is clear that while small firms especially may benefit from the credibility provided by being part of a larger network, the network itself must establish and maintain legitimacy. Enhanced firm-level legitimacy seems likely only when the network itself is legitimized. Finally, while in our earlier study we found that the domain-similar firms of Alpha-net reported a broader range of firm-level outcomes than the more heterogeneous firms of Beta-net, it is inappropriate to conclude that domain similarity can explain overall network success. Rather, we would argue that legitimacy building is critical to network success and can overcome the inherent disadvantages of building a network based on competing, domain-similar firms.

Despite the contributions we believe we have made, the research is not without limitations. Most notably, the use of only two networks limits the generalizability of the findings. It was our primary purpose to build new theory about network evolution and legitimacy building, and for this, the comparative case study approach was highly appropriate. While we have confidence that our methods accurately reflect how Alpha-net and Beta-net evolved and the strategies used to establish legitimacy, we cannot be sure that other networks might not evolve in ways that are different. For instance, it is possible that under certain conditions a strong outside-in legitimacy-building strategy might prove successful, especially if the legitimacy of interaction and form have been established prior to network formation. It is also possible that since we selected only networks that were succeeding at the time of initial data collection, our work may not accurately explain how all SME networks evolve, especially those that have substantial problems and crises early in their evolution.

Another concern is that our data collection focused only on the NAO and the core member firms that were active network participants. Because our intent was to develop an in-depth understanding of network evolution, we studied only the firms that were actively involved in this process.

Nonetheless, our conclusions clearly do not reflect the perspectives of all firms listed in the network directories, limiting to some extent what can be said about certain aspects of network evolution. For instance, it may be that interactions between core (active) and periphery (non-active) firms, even if only infrequent, may alter relations either among the active firms or between active firms and the NAO. This, in turn, could affect the legitimacy-building process, especially if active firms were significantly influenced by the non-active ones. The impact of non-active firms on network legitimacy building is likely to be greatest at the earliest stages of evolution, before ties to the NAO, the other active firms, and the network concept become firmly established.

Another issue is the focus on explanations of evolution tied to legitimacy, as opposed to resource dependence. As previously discussed, our emphasis on legitimacy emerged from observations and interviews, not from preconceived views of how networks evolve. It is not unreasonable to argue that the resource needs of member firms and the NAO played a significant role in shaping how the network evolved, similar

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to their role in solidifying other social groups (Hechter, 1987). We do not disagree with this explanation, although we believe that building legitimacy comes first and is critical to the capacity of a network to attract needed resources from both internal and external sources. We also agree with Aldrich and Fiol (1994), Suchman (1995), and others who argue that legitimacy, while difficult to separate from resource effects (Baum and Oliver, 1992), is an important organizational constraint worthy of study in its own right.

Finally, there are practical reasons for examining network legitimacy building and evolution. The burgeoning interest in multilateral SME networks in the U.S. and abroad calls for objective analysis of how best to use scarce resources for network development. From a policy perspective, our findings on how SME networks evolve suggest that state or local governments might consider strongly supporting the network through its NAO during formation and early growth, legitimizing the NAO and the network form. Funding should be earmarked for building interactions among member firms. As the network matures and interactions become legitimized, government support can gradually be withdrawn, and the role of the network administrative organization can be reduced. For network administrators, our work may help guide decisions concerning the efficacy of different legitimacy-building strategies, particularly at different stages of network evolution, so that network formation and growth can occur relatively smoothly.

Despite limitations, our findings and conclusions should contribute to a deeper understanding of both legitimacy building and multilateral networks. Legitimacy is critical for the survival of all organizational forms, and multilateral networks are an increasingly important way for small and medium-sized firms to organize and conduct business. By understanding how such networks build legitimacy as they evolve, new insights can be gained to inform both theory and practice.

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