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NETWORK CATALYSTS TO SMALL BUSINESSES: A STRATEGY FOR FRAGMENTED INDUSTRIES

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ABSTRACT

The catalyst roles played by the New York City's Garment Industry Development Corporation (GIDC) and San Francisco's Garment 2000, two non-profit organizations providing services to the apparel industry, were analyzed using a network perspective. The networks of apparel businesses in the two cities were advanced by GIDC and Garment 2000 through their structures and strategies, including building trust, providing easy entry and exit mechanisms to network members, offering dynamic programming, and establishing partnerships with other organizations serving the apparel industry. The loosely structured business networks in the apparel industry and other fragmented industries benefit from catalyst organizations that can increase communication across the memberships, identify and address needs of member businesses, and seek funding to support programs. Implications for businesses that want to initiate catalyst organizations to serve small business networks in other industries are discussed.

INTRODUCTION

Business networks, networks within organizations, and personal use of networks or networking have been extensively discussed in the 1990's. Small business or small firm networks are loosely organized groups of firms that interact, share information and contacts, cooperate, and reciprocate on a fairly stable basis (Sydow, 1996). Networks within and across large organizations are engaged as people repeat internal and external business transactions with the same people, such as interactions that arise between designers and production managers or when purchasing from a particular vendor. Linkages up and down the supply chain are characteristic of both small and large business networks. Entrepreneurs just starting a business and young people fresh from college are advised to identify mentors, clients, and potential jobs to help them in their respective objectives, in other words, to network.

Some industries are more fragmented than others, that is, have many small businesses with many supply chain levels resulting in less well defined supply chain relationships. These fragmented industries, such as apparel and service, are less likely to have stable, formal, structured business networks. Indeed, by definition, the communication and information sharing is fragmented. These industries may be helped by a catalyst organization that works on behalf of the fragmented business network membership.

Networks can result from interpersonal relationships founded outside or within a business context that build trust among the parties, often based on repeated interactions. The literature has highlighted the role of geographic proximity, shared resources, and shared needs as positive influences to business network development. The general goal of a regional business network, or industrial district, is for businesses to benefit from clustering in location by sharing resources such as labor, information, and business services as well as vendors and customers. Businesses that share input-output relationships, such as apparel cutting contractors, sewing contractors, and manufacturers, locate together to allow easy and frequent personal interactions that enhance the workforce and workplace opportunities for all businesses and promote the industry as a whole. Networks can be informal without a clear accounting of members and activities or more formalized with membership directories, regular meetings, or by-laws. Sometimes, established organizations that businesses have in common, such as trade associations, unions, or chambers of commerce, have a part in the initiation, development, or evolution of business networks, even to the extent of institutionalizing the network in the form of an independent, catalyst organization.

The purpose of this paper is to analyze and compare the catalyst roles of two organizations from a network perspective: New York City's Garment Industry Development Corporation and San Francisco's GARMENT 2000.

BACKGROUND

The dynamic business network was described by Miles and Snow (1986) as a new organizational form compatible with the competitive environments of the 1980's. They outlined the building blocks of network theory to be vertical disaggregating of business functions, increased use of brokers, market mechanisms such as contracts for results, and information sharing across firms. The theory contended that the traditional functional business roles would be divided among a set of network members instead of within an individual firm. Network members would have complementary relationships that encompassed a broad view of an industry and competitive relationships that focused on firm-specific productivity and profit. Network theory has since been explored and extended by a number of researchers, including a focus on regional location and catalyst institutions.

Powell (1990) listed four characteristics of a network framework that distinguish a network's logic of exchange from either a hierarchy or economic motivated exchange. These were: 1) cooperation along a horizontal exchange format, 2) open-ended membership allowing easy entry and exit, 3) supplier of efficient and reliable information, and 4) enhancement of the industry knowledge base and innovation through incentives for learning. These characteristics included social variables that were not always included in explanations of an exchange transaction. Trust was identified by Staber (1996) as a necessary social element of a business network as he explained "how a cluster of autonomous firms can be transformed into a community of trusting partners, willing to share scarce information in pursuit of innovative projects" (p. 168).

The embeddedness concept focused on economic action embedded in social structure. Granovetter (1985) initiated interest in embeddedness as an explanation for successful small

firms operating without being absorbed by larger firms "because a dense network of social relations is overlaid on the business relations connecting such firms and reduces pressures for integration" (p. 507). Uzzi (1997) extended Granovetter's work by identifying four types of embeddedness (i.e., structural, cognitive, political, and cultural) and more fully developing the concept of structural embeddedness in a business network context. He emphasized the quality of social relationships in a network as the unit of analysis for embeddedness, the use of both arms' length and embedded ties, and the desire for repeated transactions rather than single, maximum-profit transactions.

Using the New York apparel industry as an illustrative example, Uzzi (1996; 1997) argued that structural embeddedness could explain the effectiveness of networks in environments where 1) time was an important variable, 2) there were low barriers to entry, and 3) many substitutable shops were available. He evaluated the structure and quality of social ties among firms in analyzing the success of NYC apparel contractors through interviews of manufacturers and contractors and union records. He concluded that embeddedness was used as a logic of exchange that contrasted to market logic and that resulted in economies of time, integrative agreements, allocation efficiency, and complex adaptations. However, he cautioned that there was a threshold where too much social embeddedness combined with external shocks could cause negative economic effects. For example, excessive embeddedness with network members without a continuous monitoring of the market place could create a false security that all was stable and going well when, in fact, innovations and new approaches were emerging that had major effects on network members' businesses and the industry.

Uzzi (1996) defined network "go-betweens" as individuals who facilitated two parties working together when the parties were known to the go-between but not to each other. The connection was based on trust, fine-grained information (that is, detailed or specialized), and eventually resulted in joint problem solving arrangements. An institution as well as an individual could serve as a network go-between. Staber (1996) described an increasing need for institutional infrastructures that facilitated business networks while limiting opportunistic behaviors among the members.

Piore and Sabel (1984) used the network perspective in developing the concept of flexible specialization as a strategic business choice. Flexible specialization required an inter-firm dependence often coordinated by a collective institution, such as a trade union, where each firm could specialize on its best product or process and flexibly offer it in coordination with the other network members. Piore and Sabel used the Italian textile industry as an example of a successful regional business network using flexible specialization through technology innovation, a sense of community, and trust. Lazerson (1995) extended the illustrative example, analyzing the network structure of the Italian knitwear industry near Modena. He concluded that technology, marketing, cohesive family units, and relationships among businesses, communities, and institutions contributed to the network's success. Others (Uzzi, 1996, 1997; Waldinger, 1986; Rantisi, 2002; and Kaan, 2001) studied New York City's apparel industry using a network perspective to explain the close proximity of design, production, and retail functions, and use of personal and business networks. The concepts of flexible specialization, industrial district (or regional business networks), and a network catalyst institution have been applied to other industries and locations, including the high-tech industry in Silicon Valley (Saxenian, 1994) and the automotive industry in Baden Wurttemberg region of Germany (Cook & Morgan, 1990).

This paper evaluates the catalyst roles that two non-profit institutions, the Garment Industry Development Corporation and GARMENT 2000, have played in the apparel industry in New York City and San Francisco by developing and extending business network relationships to new participants and markets. Data acquired through interviews, reports about the

organizations, and first-hand knowledge based on authors' work with the organizations were analyzed using Powell's framework of network characteristics and Uzzi's work on network embeddedness and the role of go-between or catalyst organizations.

APPAREL INDUSTRY NETWORKS IN NEW YORK CITY AND SAN FRANCISCO

New York City's Garment Industry Development Corporation (GIDC)

New York's Garment District has long been considered the center of fashion and the apparel industry in New York. Defined as the section of Manhattan Island between Fifth and Ninth Avenues and 23rd and 35th Streets, the Garment District is organized by product type and price points. Whole buildings house business competitors, for example, manufacturers of women's dresses that retail at $100-200. In the past several decades, however, apparel production, and fabric, trim, equipment, and service suppliers have moved to other city locations, such as Chinatown, Queens, Brooklyn, and the Bronx. Many innovative young designers are currently clustered in the Lower East Side. Housing over 4000 apparel production shops and employing over 87,000 workers in the manufacturing sector even after decades of decreasing employment (U.S. Census Bureau, 2000), New York City's five boroughs have hosted the dominant cluster of apparel design and innovation, manufacturing, and retail business headquarters since World War II.

New York City's Garment Industry Development Corporation (GIDC) was created and initially funded in 1984 by the city, union, and several garment industry trade associations to advance the New York City (NYC) apparel industry. It served as a catalyst organization to the NYC apparel industry, addressing the needs of the many small production firms located throughout the city's five boroughs that were driven by fashion change. Citywide geographic proximity of businesses was long established but at risk as international trade policies and changing relationships between manufacturers and retailers were sending apparel production off-shore to countries with plentiful low wage labor. As the largest manufacturing sector remaining in NYC, the apparel industry provided jobs for many unskilled workers, often new immigrants, and GIDC was founded in an effort to keep these jobs in New York City.

San Francisco's GARMENT 2000

California had the largest apparel worker population nationally in the 1990's while New York was second. San Francisco's apparel industry spanned nine counties that touch the San Francisco Bay: San Francisco, San Mateo, Alameda, Marin, Sonoma, Solano, Napa, Santa Clara, and Costa Contra. In 1996, there were approximately 330 to 400 manufacturers, contractors, and subcontractors that supported over 25,000 workers, 14,500 of whom were located in the county of San Francisco (Schiorring & Stark, 1997). For the remainder of this analysis, the entire Bay Area apparel industry will be referred to as San Francisco. Los Angeles had an even larger cluster of apparel manufacturers, 4,085, with an additional 315 in neighboring counties, and supported 115,000 workers (Schiorring & Stark, 1997). Only San Francisco area businesses were served by GARMENT 2000.

The apparel industry in San Francisco did not have a central location. At one time Chinatown held a large number of contractor shops, but due to its proximity to an expensive real estate market driven in part by the dot.com frenzy of the late 1990's, many shops moved to the south side in the Market/Portrero area. According to a study by Stark & Rabolt (1997), 81 percent of the typical sewing machine operators in San Francisco were women and 90 percent were Chinese. Less than 21 percent spoke English fluently. As with New York City, the apparel manufacturing industry offered employment for immigrants who were likely to speak English as a second language (ESL) and were relatively unskilled.

San Francisco's GARMENT 2000 was formed in 1994 in response to labor law violations in the apparel industry. Modeled after GIDC's collaborative structure, it was a partnership formed by stakeholders including the City College of San Francisco (CCSF), the U.S. Department of Labor, the San Francisco Mayor's Office, the Union of Needletrades Industrial and Textile Employees (UNITE), the San Francisco Fashion Industries, and local manufacturers and contractors. Its funding came from the federal government and independent foundations. A sister project San Francisco Center for Applied Competitive Technologies (SFCACT) was one of twelve regional sites of a statewide manufacturing initiative in California. The SFCACT was the only state site that worked with the apparel industry and its expertise was often lent out to other regions. GARMENT 2000 and SFCACT programs, staffing, and clients overlapped. For the rest of this analysis, discussion of GARMENT 2000 will include programs and networks of both GARMENT 2000 and SFCACT. GARMENT 2000's mission was to reposition the local apparel industry in a way that would enable small and medium sized apparel producers to compete in the global economy.

San Francisco manufacturers and contractors faced the same problems as New York based manufacturers: modifications of international trade policies, changing relationships between manufacturers and retailers, low-skilled workers without transferable skills, an ever changing fashion product, and no central point for knowledge exchange. A production manager with Koret in California described the environment (personal communication, 1999), "There was an important need to refine the way we did business in the apparel industry in San Francisco because of increasing pressure from global competition. GARMENT 2000 provided contractors with expertise in use of current technology and manufacturing systems." As was GIDC's, GARMENT 2000's strategy was to shift production away from high volume manufacturing and toward higher-value, higher-quality manufacturing. This was accomplished by developing training activities to upgrade both workforce and workplace through the introduction of new production processes and information technologies (Schiorring & Stark, 1997).

Using the concept of embeddedness and a network analysis perspective, the catalyst roles played by GIDC in NYC's apparel industry and GARMENT 2000 in San Francisco's apparel industry were examined and compared to provide a model for other industries. The evaluation focused on initiation and oversight by industry stakeholders, organizational structures, and dynamic programming.

CATALYST ROLES

Building Trust

Neither New York City nor San Francisco apparel manufacturers and contractors had a history of trust with each other. So, the initial structures and collaborative funding of GIDC and GARMENT 2000 were designed to build trust among the stakeholders of the apparel industry (see Table 1). The union (now UNITE) represented its workers on the boards, the trade associations represented its business members, and the city governments worked toward the economic interest of keeping industry jobs in New York City and San Francisco. UNITE provided initial and on-going financial support to GIDC through the American Council for American Fashion, but GARMENT 2000 received no funding from UNITE. Through collective bargaining, UNITE had a clause in its New York City contracts requiring employers to contribute 1/10 of one percent of payroll in this development fund managed by UNITE. The varying financial support of UNITE was indicative of the differing union membership in the two regions. Approximately 50 percent of New York City apparel shops were unionized compared to the less than five percent unionized shops in San Francisco.

Table 1: Program Category-Initial Program Issue
Comparison of Garment Industry Development Corporation and GARMENT 2000

Program	Funding Source[1]	Date	Partners	Audience	Program Goals
GIDC		1984	New York City	Contractors	Sell affordable condominiums to contractors in Chinatown
Garment District Building Purchase					
Real estate study		2001	New York Industrial Retention Network	Union, policy makers	Understand changes in real estate market in the Garment District
GARMENT 2000	DOL AGILE Levi's	1995 1995	Department of Labor; Office City College of SF	Apparel contractors	Expand skills & technical expertise

[1] See notes for full name of funding sources.

From Table 1 it is noted that GIDC and GARMENT 2000 initiated their programs due to very different reasons. GIDC's funding was developed from real estate collectives while GARMENT 2000 was developed in an attempt to refurbish a dying industry.

GIDC defined itself as a representative of the stakeholders with a mission to support the apparel industry at a time of escalating rents, decreasing employment numbers, and price-driven orders. Its first program focused on real estate prices, purchasing a building in Chinatown to divide into condominiums for sale to apparel contractors. Business owners reaped a direct benefit from this program--a benefit that required a financial contribution and rezoning by the city and that would not have happened without GIDC' s vision and catalyst role to the apparel business network.

In San Francisco in 1992, compliance with the U.S. government's regulations concerning overtime, child labor, safety regulations, homework, worker's compensation, communication issues to workers, and rate of wages was problematic. In direct response, the Department of Labor initiated a dialog among a small group of San Francisco manufacturers, contractors, and existing trade organizations resulting in the 1994 Master Agreement articulating the need for GARMENT 2000. In this voluntary agreement, both contractors and manufacturers agreed to a price, but they had the ability to renegotiate the price if something was not acceptable once the sewing began. Compliance increased dramatically from 12 percent in 1992 to 36 percent in 1993, and 61 percent in 1995 (Chin, 1995), an indication of the proactive role played by GARMENT 2000. Monthly meeting of its stakeholders established initial trust in GARMENT 2000's catalyst role through active dialog among its members and knowledge of its activities.

Location was used to build trust in apparel industry networks through GIDC and GARMENT 2000. GIDC was located in a building owned by the union right across Seventh Avenue from the Fashion Institute of Technology (FIT) and GARMENT 2000 at City College of San Francisco (CCFS). These were familiar territories and in close proximity to many of the businesses in the networks. GIDC training courses were first offered at FIT and the nearby Fashion Industry High School, establishing useful and visible connections with New York's well-known industry-focused educational institutions. At the time, GARMENT 2000 worked closely with CCSF and San Francisco State University in curriculum development to connect the non-credit and credit-bearing opportunities for industry workers. Locating training at these institutions with excellent reputations for fashion industry-related education gave credibility to GIDC and GARMENT 2000 programs.

In 1998, GIDC opened the Fashion Industry Modernization Center, a training facility, in Chinatown where many unionized apparel contract firms still resided. GARMENT 2000's teaching factory, Institute of Design and Education in Apparel (IDEA) was developed at CCSF in 1999. Millions of dollars of equipment and software donated by the industry to be used at both facilities and were used in training programs and expositions to improve the skills of industry workers and competitiveness of local businesses. Again, location proved to be advantageous to the trust-building role of GIDC and GARMENT 2000 among business members as well as other industry stakeholders.

Deliberate staffing decisions increased trust as well. Most GIDC employees had industry experience. Chinese-speaking and Spanish-speaking employees were hired by GIDC to facilitate easy communication with the industry's dominant ethnic groups and between business owners and workers. Some instructors also taught at FIT. Similarly, GARMENT 2000 increased trust through staffing decisions, hiring a director who was a retired union contractor, was of Chinese descent, and had strong connections in the San Francisco apparel industry. The director contacted and hired trainers, educators, and specialists with industry experience and connections to its immigrant populations to develop and deliver industry-driven curriculum that supported changes in the apparel manufacturing environment.

Easy Entry and Exit

Although GIDC and GARMENT 2000 were formal in structure and operation, the business networks of apparel producers that were represented by GIDC and GARMENT 2000 were very loosely structured. Indeed, at any given time it would be difficult for GIDC or GARMENT 2000, the union, trade associations, or other businesses to list the networks' membership. As Powell (1990) argued, easy entry and exit from a network was an advantage and a significant difference from most hierarchical organizations. It was up to the businesses when and whether to connect with other network members or GIDC and GARMENT 2000. Although this loose structure made it difficult to offer and evaluate services, it also made the networks and the catalyst roles of GIDC and GARMENT 2000 less confining, more like a web than an organizational chart. As Uzzi (1996; 1997) described, unique and accessible opportunities were provided to network members through the embeddedness of the catalyst organizations rather than through connections among its individual members.

Dynamic Programming

The GIDC and GARMENT 2000 program offerings are presented in four categories with date of initiation, audience, and goal (see Tables 2-5):

- Training
- Technical assistance
- Research, information analysis, and dissemination
- Market development.

While GIDC's initial services focused on real estate and GARMENT 2000's on compliance, training for displaced and incumbent workers, supervisors, and business owners quickly became standard program offerings of both organizations. Both organizations first focused on unemployed workers who had some sewing skills in the Super Sewer program. The funding agency required that prospective students were collecting unemployment compensation and that job placement and retention record systems be part of the program. Over a five-year period, GIDC trained 574 dislocated workers and placed 70-80% (Garment Industry Development Corporation, New York City, 1994). A more recent study conducted by the Aspen Institute (Zandniapur & Conway, 2001), found that there was a 9% increase in average

individual earnings for workers participating in GIDC programs and that 88% of the respondents were employed at some point in the 12 months after GIDC training. These evaluation data confirmed the successful role GIDC played in providing skilled workers for the industry. Over the years and with the opening of the Fashion Industry Modernization Center and IDEA, the training programs of GIDC and GARMENT 2000 included more courses and advanced courses for sewing machine operators, pattern makers, supervisors, and managers to competitively position the NYC industry on the basis of quality and production time.

Table 2: Program Category-Training Comparison of Garment Industry Development Corporation and GARMENT 2000

Program	Funding Source[1]	Date	Partners	Audience	Program Goals
GIDC					
Super Sewers	JTPA, CWE		Consortium for Worker Education, UNITE	Unemployed apparel production workers	Expand sewing skills, ESL, health and safety
Production Cutting & Pressing	NYS, USDOL, CWE, NYC		UNITE LOCAL 10	Incumbent workers	
Machine Mechanics	NYS, USDOL, CWE, NYC		Greater Blouse, Skirt and Undergarment Association	Apparel contractors & incumbent workers	Expand machine repair skills
Supervisory Skills	NYS, USDOL, CWE, NYC			Supervisory personnel	Improve skills
Pattern Making	NYS, USDOL, CWE, NYC			Incumbent workers	Career step
Grading & Marker Making	NYS, USDOL, CWE, NYC			Incumbent workers	Career step
Computer Courses for Managers	NYS, USDOL, CWE, NYC	1998		Apparel contractors and managers	Computerize operations
Work Skills Standards		1998		Incumbent workers	Increase portability of skills and career planning
GARMENT 2000					
Super Sewers	MANEX-MEP	1996		Unemployed apparel production workers	Expand sewing skills
Super Supervisors			Incumbent workers	Incumbent workers	Career advance
Machine Repair	MOCD	1996	Juki	Apparel Contractors & incumbent workers	Expand machine repair skills
Supervisory Skills	MOCD Levi's	1996		Incumbent workers	Prepare for supervision
Work Skill Standards	DOL	1997 1998	DOL	Managers	Career step efficiencies

(Table continued on next page)

Program	Funding Source[1]	Date	Partners	Audience	Program Goals
Sewing Operators	AACC Award Levi's DOL	1997 1996 1996		Incumbent workers	Career step
Grading & Marker Making	JDIF	2000	Gerber	Incumbent workers	Career step
Computer Courses for Managers	CACT DOL JDIF	1997 1999 2001	SFSU	Apparel contractors and managers, students	Computerized operations; Improve efficiency
Total Quality Mgn.	DOL CACT	1995 1998	Gerber	Contractors	Improve efficiency
Entrepreneurial	CACT	1998 1999	Gerber Juki	New Businesses	Enter new business

[1] See notes for full name of funding sources.

Both of these initiatives developed training programs for the apparel industry workers and students, including skill upgrading for the sewers and supervisors of the sewers, grading and marker making, computer courses for managers, sewing machine mechanics and repair, and English as a second language. In addition GIDC offered training in pattern making and production cutting and pressing, while GARMENT 2000 offered training in areas indirectly related to the floor sewing operations: quality management, entrepreneurial development, and some international training.

Both GIDC and GARMENT 2000 training programs addressed methods of improving production efficiencies and improving operator skills through technical, communication, and teamwork skills. They also encouraged entrepreneurs and start-up companies as illustrated by an assessment of a private label contractor, "The value of GIDC to small businesses that can become isolated is to bring thinking to confirm or negate their own thinking. GIDC helps me move forward. I would still be here without it, but not so advanced or efficient" (personal communication, February 24, 1999). GARMENT 2000's Incubator program provided space, support in conducting marketing research, and assistance in developing apparel samples to new design/manufacturers at its IDEA teaching factory.—One entrepreneur user expressed appreciation, "This opportunity made our small company realize challenges and we were able to overcome some pretty scary obstacles" (personal communication, 1999).

Communication with network members is an ongoing challenge due to the fragmented nature of the industry, the small size and continuous entry and exit of businesses in the industry, as well as the flexibility required to address the training needs of these network members. Another GIDC network member (personal communication, February 24, 1999) confirmed how difficult it was to keep in touch with the members of the apparel industry business network, "[GIDC] could do a better job with getting newsletters and course announcements out to people in a timely manner. Newsletters sometimes come after an event has happened and course announcement notices are sporadic."

On-site technical advice and training was introduced at GIDC in 1998 in collaboration with the federally funded, NYC manufacturing extension program, Industrial Technology Assistance Corporation (ITAC) (see Table 3). ITAC targeted five industries in New York City, including apparel, for assessment and contracting of services. GIDC was hired as the service provider for the apparel industry and it conducted on-site training for workers and managers using one-on-one and train-the-trainer approaches. The San Francisco Center for Applied Competitive Technologies (SFCACT) offered on-site technical assistance similar to

ITAC though it was funded by the state of California rather than federally. GARMENT 2000 also initially offered free on-site consultation, but moved to a fee-for-service structure. While most of the businesses used the advice to make changes, others seemed to use the technical expert as an extra worker. The shift in structure helped to eliminate this misappropriation of services.

Table 3: Program Category-Technical Assistance
Comparison of Garment Industry Development Corporation and GARMENT 2000

Program	Funding Source[1]	Date	Partners	Audience	Program Goals
GIDC					
On-Site Training	NYS, NYC, UNITE/Council for American Fashion		UNITE	Apparel contractors, incumbent workers	Improve production efficiency
On-Site Training – ITAC contract	NIST		ITAC	Apparel contractors & incumbent workers	Improve production process efficiency
On-Site Training - [TC]^2 / GIDC project	Alfred P. Sloan Foundation	2000	[TC]^2	Apparel contractors & incumbent workers	Introduce modular manufacturing
GARMENT 2000					
On-Site Training	CACT DOL MOCD	1999 1995 1996	Apparel contractors		Improve production efficiency
On site demonstration		1995+	SF Sewing Association	Contractors & manufacturers	Introduce modular manufacturing
Costing Video	DOL	1998		Contractors & manufacturers	Improve efficiencies

[1] See notes for full name of funding sources.

Both programs offered both on-site and off-site technical assistance to their clients.

Information gathering and trend analysis was another service offered by GIDC and GARMENT 2000. Reports were disseminated widely to help businesses and outside agencies understand industry successes and challenges and its contributions to the economic and social environment. In addition to commissioned studies, GIDC and GARMENT 2000 cooperated with studies conducted by other agencies in which their organizations were highlighted. For example, the Aspen Institute analyzed GIDC for its sectoral employment development achievements along with five other sectoral employment development organizations (Zandniapour & Conway, 2001; Conway & Loker, 1999) and the Wellness Foundation (Schiorring & Stark, 1997) funded research to consider the viability of the Made by The Bay program to promote specific contractors in San Francisco. The business networks gained insights from these objective analyses and the networks' stories and needs were disseminated to new audiences that could result in additional funding, partnerships, or advantageous public policies.

Another form of evaluation came from participation in research and demonstration projects, such as the U.S. Department of Labor-funded projects for GIDC and GARMENT 2000 on work skill standards for high performance manufacturing and the GIDC/[TC]^2 (Textiles / Clothing Technology Corporation) project on modular manufacturing funded by the Alfred P. Sloan Foundation (see Table 4). In all of these, curricular strategies and materials were

developed and applied in training programs and on-site training and final reports were disseminated to funding agencies and their mailing lists. These participations produced positive results for GIDC and GARMENT 2000 networks and network members while serving as models for other business networks.

Table 4: Program Category-Research, Information Analysis & Dissemination Comparison of Garment Industry Development Corporation and GARMENT 2000

Program	Funding Source[1]	Date	Partners	Audience	Program Goals
GIDC					
Keeping New York in Fashion		1992			Report state of fashion industry
Child Care Study		1991		City, Industry, Union	Policy statement to improve child care for workers
Employer Needs Study				Industry	Identify needs of local firms
Buyer Needs Study			Women's Wear Daily	Industry	Identify patterns of buying trips to NYC
GIDC: A Case Study of a Sectoral Employment Development Approach	Ford Foundation, Mott Foundation, A.E. Casey Foundation	1999	Aspen Institute	Foundations, policy makers, stakeholders, training providers	Present GIDC as model for employment development
The Garment Center: Still in Fashion	UNITE	2001	New York Industrial Retention Network	Union, policy makers	Report state of fashion occupancy in Garment District
GARMENT 2000					
Newsletter	DOL	1995+		Contractors & manufacturers	Disseminate information
Marketing Video Development	MOCD	1998+		Contractors	Disseminate information
Strategic Plan	Wellness Foundation	1997	SFSU, U of C-Berkeley	Industry Consortium	Develop a strategic plan
Skill Standards Report	DOL	2000	DOL	DOL	Prepare skill standards for the industry

[1] See notes for full name of funding sources.

Research was essential to both programs to keep pace with the needs of the community and to keep the community aware of the training availability.

The goal of market development programs at GIDC and GARMENT 2000 was to increase the amount of production work completed in New York City and San Francisco (see Table 5). GIDC's Sourcing Center connected apparel contractors with manufacturers and retailers that were looking for assembly or other production services. In collaboration with the Fashion Center, the business industry district (BID) for the NYC Garment District, the New York Fashion International program (NYFI) promoted New York's image as a fashion center while helping businesses export internationally, a new endeavor for most. The recent Made-in-New

York label program and GIDC's role in encouraging the production of New York City, state, and Department of Defense uniforms in NYS apparel shops were opportunities to promote the business network of apparel producers while bringing work to them. Made by the Bay was initially funded by an Industry Driven Regional Collaborative (IDRC) grant issued through the state chancellor's office and managed and monitored by GARMENT 2000. Made by the Bay promoted member apparel contractors located in the nine-county region but ceased to exist when its funding was depleted.

Table 5: Program Category-Market Development
Comparison of Garment Industry Development Corporation and GARMENT 2000

Program	Funding Source[1]	Date	Partners	Audience	Program Goals
GIDC					
New York Fashion International (NYFI)	USDOC, UNITE/Council for American Fashion	1991	Fashion Center	New York manufacturers	Increase market for NYC apparel
Sourcing Center	NYS, NYC, UNITE/Council for American Fashion			Contractors, manufacturers	Increase NYC apparel production
Made-In-New York Label	NYS	2000	UNITE	Contractors, manufacturers	Increase NYC apparel production
Domestic uniforms	National Network of Sector Partners	2002		Contractors, manufacturers	Increase NYC apparel production
GARMENT 2000 Made By the Bay	IDRC	1998	Apparel Contractors	Apparel contractors	Increase market for apparel

[1] See notes for full name of funding sources.

GIDC and GARMENT 2000 initiated marketing campaigns to be used by the manufacturers and contractors to help increase marketing or apparel production with varying levels of success in a declining apparel industry.

Partnerships with Other Industry Institutions

A catalyst institution representing a business network was positioned to interact with other interested institutions. In the case of GIDC, this meant the union, trade associations, city/state/federal government as well as ITAC and the Fashion Center. In the case of GARMENT 2000, this meant CCSF and Made by the Bay. For both GIDC and GARMENT 2000, partnerships were also made with large supplier businesses that might have a stake in the machinery in the Fashion Industry Modernization Center and IDEA teaching factory such as Gerber and Juki. Partnerships were also made with community colleges and four-year universities, other New York and California organizations supporting the apparel industry, manufacturing extension programs, and city/state/federal government offices. In the fragmented apparel industry, partnerships were easier to establish and nurture with a centralized institution than with independent small business owners.

CHALLENGES

Although there were many advantages to loosely structured networks with easy exit and entry, informal memberships presented some challenges. For both GIDC and GARMENT 2000, one major challenge was to identify small, independent businesses that might be interested in their programs, encourage their participation, and assess their needs. It was much easier to recognize the need for change than to convince a business person that attending a class, welcoming on-site training, or buying a new piece of equipment was more important than the immediate crises of workers quitting, machine breakdowns, acquiring new work, and paying bills. A GIDC network member commented (personal communication, February 24, 1999), "The problem is that so many firms need to access, but few choose to access due to time, fear of competition because they know something that another doesn't, resistance to change, maybe marketing of programs." Recruitment of new students and identification of firms that would commit time and money to gain long-term advantages never ended and was discouraging to the GIDC and GARMENT 2000 staff.

Courses with enrollment minimums made planning and staffing decisions difficult. GIDC provided names of potential workers to prospective employers every day as the turnover rate for industry production employees was high. Providing matching services such as the Sourcing Center was extremely difficult in an industry where, on the one hand, firms went into and out of business every day and, on the other, some firms had the same customers today as in 1950 and were not accustomed to using such services. Even encouraging manufacturers to explore new opportunities such as international export was sometimes discouraging to network catalysts as the return on investments in such endeavors might not be realized by the businesses for years.

Some network members became dependent on a central organizing institution for the network, such as GIDC or GARMENT 2000, and the central organizing institutions worked more closely with firms that were well known to them instead of continually increasing in scope. Just as Uzzi (1997) argued that there was a threshold at which individual businesses were too dependent on the network and neglected other activities to promote their businesses, some apparel industry network members became too dependent upon GIDC or GARMENT 2000. For example, a production manager member of GARMENT 2000 lamented, "I wish you were here all the time. It's good to bounce ideas back and forth. You give me the courage to try new ideas" (personal communication, 1998). As the industry evolves with contractors, manufacturers, and retailers taking new roles, GIDC and GARMENT 2000 must continuously redefine constituencies and programs so as not to become over-embedded by focusing on the same firms. In offering educational programs and connecting producers to customers, GIDC and GARMENT 2000 must balance their catalyst roles to assure a certain level of independence for their business network members and to constantly interact with a range of old, new, and potential network members for accurate assessment of the industry environment.

Acquiring on-going funding was also challenging. GIDC and GARMENT 2000 were increasingly successful at competing for city, state, federal, and foundation funding, but this funding brought other considerations. For example, the funding requirements of GIDC's Super Sewers were changed by the sponsor in 2000, putting the program's future in question. GIDC and GARMENT 2000 both received primary funding through state programs and were affected by changes in the political environment. Some other funding was for short-term projects that had very specific objectives, such as the work skill standards projects, that may or may not be in alignment with the organization's central goals. Partnerships with other organizations had the same potential as short-term projects to dilute progress toward the

central goals of GIDC and GARMENT 2000 and could benefit only a few firms or a few employees in the networks.

The close relationship between GIDC and the union, UNITE, and the initial focus on unionized shops was also problematic. Funding from state and federal sources required GIDC to serve all apparel shops, union or not. With its historic connection to the union, building trust with a broader mission was challenging. In addition, the number of unionized shops in NYC was decreasing and, therefore, receipts from the union to fund GIDC were also decreasing. The small percentage of unionized shops in San Francisco and the lack of financial support from UNITE made the relationship between GARMENT 2000 and UNITE less influential.

Manufacturers were becoming more concerned with in-house design, merchandising, and distribution and more likely to contract out production while retailers were taking on similar roles with their private label business in the early 2000's. Consequently, a new challenge for GIDC and GARMENT 2000 was developing relationships with retailers without jeopardizing older relationships with manufacturers. If accomplished strategically, the pool of members for the apparel industry's network of businesses represented by GIDC and GARMENT 2000 could expand considerably. Growth in funding and programming could follow.

External influences affected apparel businesses as trade policies and retail consolidations increased off-shore production activity. The attacks on the World Trade Center were particularly devastating to New York's apparel industry due to its location in lower Manhattan and the lack of consumer spending in the aftermath. These changing environments challenged apparel manufacturers and contractors and the catalyst organizations that represented them to identify and implement strategies that enhanced the competitiveness of the domestic industry. GIDC, GARMENT 2000, and other network catalyst organizations must be dynamic, flexible, and ever evolving to address the future needs of an industry as fragmented and volatile as the apparel industry. Creating partnerships with a variety of organizations and government agencies (city, state, and federal) seemed to be a successful strategy to address these external influences than GIDC or GARMENT 2000 on their own.

The focus on both supply- and demand-side programs of GIDC and GARMENT 2000, such as upgrading career ladders in low-skilled jobs (supply) and expanding markets for the NYC and San Francisco apparel industries (demand), ultimately strengthened the entire industry and individual businesses. Innovative approaches to production and distribution such as contractor alliances to offer full-package services (i.e., design, fabric purchase, patterns, assembly, and delivery) should be encouraged through training opportunities and communication among network members. One such example of a contractor alliance in NYC sold the work of six to eight contractors, each with a different specialty (e.g. pants, dresses, blouses, etc.). The alliance provided customers one-stop service for a variety of garment types rather than separate orders with multiple contractors. The contractors offered their products independently as well (Kaan, 2001). An educational GIDC stakeholder described (personal communication, February 25, 1999), "A good contractor has to be very flexible, to make a variety of product—have to invest in equipment to do this. Contractors aren't known for being strategic. They have to develop a capacity for selling themselves. Need to do more than sit and wait for orders. The [GIDC] Sourcing Center is a key thing here. GIDC's equipment shows also meet a strong need here."

DISCUSSION AND IMPLICATIONS

GIDC and GARMENT 2000 can serve as models for developing catalyst organizations in other geographical areas, industry sectors, or small business networks. By building trust in the

catalyst organizations rather than in individual members, the networks can operate efficiently across large, loosely structured, and fragmented memberships. Catalyst organizations can provide clearinghouse services for network members, collecting information to understand what members are experiencing and providing industry trend information to its members. Catalyst organizations can develop strategic partnerships with other organizations interested in the success of businesses in specific networks in order to jointly identify problems, evaluate possible solutions, and seek funding for programs.

What industries would benefit from catalyst organizations? Industries with low skilled workers, with family and friendship relationships that drive business relationships, with fragmented supply chains, and with regional specializations may find a network catalyst organization particularly helpful. The low skilled labor needs of industries such as apparel, construction, service, warehousing, daycare, and other health services pose special problems due to structural issues--low wages, dominance of unionized shops, and lack of advancement opportunities --and labor pool issues--educational level, language barriers, and lack of work experience. When business in the industry sector was traditionally established through friendships and family relationships, assistance may be needed to establish and support new business networks. Industries with fragmented supply chains need some centralizing structures to support the various functions of the small business members. Locating near to others in the industry supply chain can provide easy access, but communication may still be difficult without a centralizing catalyst organization. The need for proximate location may grow less as virtual networks develop using technology, but these industries are traditionally slow adopters of technology. Catalyst organizations can address the needs of workers through education and training programs while also promoting communication and establishing a broad view of the industry for its members, suppliers, and customers.

How would small businesses or communities initiate a catalyst organization? It is important to start small and focus your efforts, establish partnerships with other organizations for building trust and credibility, and address both labor supply and customer demand issues. The first step is to define a broad, enduring mission for the catalyst organization. The mission should not change every few years, though particular program objectives may change frequently. The mission should clarify for network members, customers, and other organizations what the catalyst organization stands for and hopes to achieve.

Flexibility in structure and process must be continually evaluated based on the changing industry and external forces that influence it. Catalyst organizations have the responsibility to provide embeddedness for their network members, but not too much. Some participation is desirable for all members and programs offered by the catalyst organizations should be diverse to address the needs of all sizes and shapes of business members. On the other hand, members should be selective in their participation so as not to become too dependent on the catalyst organizations. The organizational structure should allow members to choose the types and level of participation as well as easy entry and exit to any or all services. Communication from the organization should be continuous and communication from its members encouraged in a variety of ways.

The five categories of programs described in this paper–initial program issue, training, technical assistance, research/information analysis/dissemination, and market development--can serve as an outline for developing the programs for a new catalyst organization. The initial program issue should be the starting point for programming, support the organization's mission, but may not be a long-term goal. GIDC's initial issue was high rents and its solution was offering lower rents in a building it purchased. This issue launched the catalyst organization but is not its emphasis 18 years later. Choosing the right initial issue that addresses the current needs of the business network is very important but not necessarily self-

evident. Lengthy discussions with potential network members about their current needs or problems should be conducted. Then, network members and partners should brainstorm to develop creative solutions. These potential initial issues should be tested for mission relevancy and one selected. Other programs should be added as needs and funding become available, but care should be taken to accept funding for programs that address the core mission of the catalyst organizations.

One way to think about program growth is with career ladders. Especially in industries that employ many low skilled, low wage workers, it is important to develop training programs that identify and reinforce career paths to greater responsibilities and higher wages as well as develop skills that can transfer across firms. Offering a series of courses that build upon one another and demonstrating how these courses lead to specific jobs can result in higher skilled workers that are less likely to leave the industry for other work. GIDC and GARMENT 2000 used the skill standards approach to build these career ladders based on the National Skill Standards for Advanced High Performance Manufacturing (Schroll, 1997). Other industry sectors such as retailing and information technology have also developed skill standards and might be useful in developing career ladders. A second approach is to address both supply and demand industry issues. GIDC and GARMENT 2000 initiated programs that focused on the supply of trained labor for the apparel industry through training programs and compliance. Later, both added programs marketing services and campaigns that created value and demand for apparel products made in New York and San Francisco.

Finally, partnerships are essential to initiating and building catalyst organizations. The current program offerings of chambers of commerce, economic development organizations, educational institutions, and organizations supporting small businesses in general and the specific industry should be evaluated. Then, those likely to advance the proposed mission should be contacted for collaboration and support. If educational programming and training is one of the offerings, partnerships with high schools, vocational schools, community colleges, and other educational institutions can be very helpful, both as sources of clients and as resources for developing programs. Just as the catalyst organization works with its own business networks, it is crucial for the catalyst organization to develop its own network of stakeholders. Programming and funding should be developed jointly to develop stakeholder ownership in the catalyst organization.

NOTES:

[1]Names of GIDC funding sources:

CWE – Consortium for Worker Education
ITAC – Industrial Technology Assistance Corporation
JTPA – Job Training Partnership Act
NIST – National Institute for Standards and Technology
NYC – New York City
NYS – New York State
$[TC]^2$ – Textiles/Clothing Technology Corporation
USDOC – U. S. Department of Commerce
USDOL – U.S. Department of Labor

[1]**Names of GARMENT 2000 funding sources:**

JDIT – Job Development Incentive Training
MOCD – Mayor's Office of Community Development
DOL – Department of Labor
IDRC – Industry Driven Regional Collaborative
CACT – Center for Applied Competitive Technologies
SFSU – San Francisco State University
CCSF – City College of San Francisco
MANEX-MEP – Center for Manufacturing Excellence
AACC – American Association of Community Colleges
Levi's – Levi Strauss, Inc.

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