

**THE ROLE OF NETWORKS
IN THE ENTREPRENEURIAL PROCESS**

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EXECUTIVE SUMMARY

The extent to which the entrepreneur interacts with the networks in his local environment during the process of starting a new firm was studied. This study was based on the premise that, during this process, he is seeking not only the resources of equipment, space, and money, but also advice, information, and reassurance. Consequently the help and guidance received from both the formal networks (banks, accountants, lawyers, SBA) and the informal networks (family, friends, business contacts) will influence the nature of the firm substantially.

The study was conducted in St. Joseph County, Indiana, a county that has experienced the same economic problems as many other towns in the midwest smoke-stack belt during the 1970s. In 1982, in response to this general decline in the business climate, a fund was raised to create and manage a new industrial strategy. Before this, there was no collective strategy for nurturing either the small firm or the new firm. Therefore, in order to determine the extent to which an interventionist strategy was appropriate, a research project was designed that posed three basic questions: what does the environment look like; does it need changing; and, if so, in what ways? This article reports part of that study—a survey of firms that had started in the county in the previous five years (1977–1982). It was concerned with two issues: the characteristics of the St. Joseph County entrepreneur and the usage of the formal and informal networks.

The results of the survey show that the aggregate characteristics of the St. Joseph County entrepreneur are similar to those found in other studies. The new firms were founded by local people from small firms who started their small firms in similar industries that were local in nature. Moreover, the majority (90%) not only started small, but also grew very little subsequently—firms that have been classified elsewhere as life-style ventures. It is to be expected that such people would have a strong local network, both formal and informal, particularly in a county with a population of only 220,000. However, the results of the second part of the study showed that the main sources of help in assembling

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the resources of raw materials, supplies, equipment, space, employees, and orders were the informal contacts of family, friends, and colleagues. The only institution that was mentioned with any regularity was the bank, which was approached towards the end of the process when many of the resources were assembled and the elements of the business set in the entrepreneur's mind. This was not because the formal sources were unwilling to offer guidance, but rather that the entrepreneur and his social network appeared to be unaware of what was available. Moreover, in using only business contacts, family, and friends, the entrepreneur was likely to re-create the elements of previous employment, even when he was starting business in an entirely new market. Further, there was no significant difference between growth and no-growth firms. It would appear that in this county, the formal network was uniformly inefficient.

This research shows that a major aim of the new strategy should be to increase the awareness of the community to the formal sources and types of help that are available. However, whilst most of the institutions are prepared to solve specific problems, they are not in the business of diagnosis or counseling. The network needs a hub or an enterprise office.

The data on the start-up process and the role of networks in relation to new firms are very sparse and often anecdotal. This study was conducted in one environment, a small midwest county with a jaded entrepreneurial tradition. Further studies are necessary. Research questions include the extent to which networking is crucial in the start-up process, the length of time it took for the sophisticated networks of Boston's Route 128 and California's Silicon Valley to develop, and the effect of different geographic, cultural, and economic conditions. Only in this way is it possible to determine the extent to which regional, regeneration strategies for new firm creation should be county specific rather than state or country wide.

ANY STRATEGY AIMED AT IMPROVING THE ENVIRONMENT FOR NEW FIRMS MUST, **A**lso, perforce, take into account the characteristics of the entrepreneur and his perceived needs. Moreover it must recognize that start-up is not a discrete event but a process that may take years to come to fruition. The strategy must, therefore, encompass not only the needs but also their timing. In the broadest sense, this leads to a discussion of economic, social, and educational environments, and is beyond the scope of this paper, except in the sense that they create the pool from which the entrepreneur emerges. Moreover, recent studies suggest that the characteristics that define the people in this pool define a wider group than simply the potential business owner and that there are two keys to understanding the supply of new firms. The first is in identifying the triggers that push the individual with the passive need to do his own thing into actively considering ownership. Such triggers are specific to the individual and to his environment. However, they all include an element of belief that it is possible to create a business out of an idea, skill, or product.

The second key, which is the focus of this article, is an understanding of the elements of this process of creation. It begins with a recognition that there may be many mechanisms by which an idea can be transformed into a business. For example, the manufacture of the product could be subcontracted, licensed, or brought in-house; the premises and equipment could be leased, rented, or purchased; the product could be sold through wholesalers, agents, an in-house sales force, or by mail-order; employees could be fulltime, part-time, or freelance; the strategy could be high growth or low growth. Each of these combinations will require different skills, resources, and timescales.

However, the entrepreneur is guided in his choices by two factors: his previous employment, which provides an initial role-model of the elements of a firm, and the advice and assistance he receives, which may enlarge his perceived options. So the process is iterative (see Fig. 1) with the entrepreneur seeking the following: information on what is

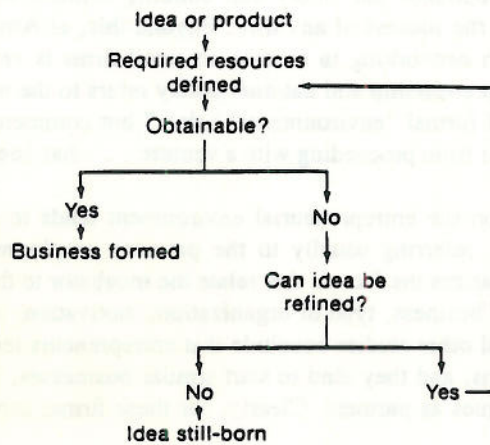


FIGURE 1 Idea still-born.

available; advice on how to best proceed; reassurance that it will work; and resources of equipment, space, and money.

It is during this process that the ability to build contacts and develop networks is fundamental. There are two networks on which he can draw: the formal and the informal. The formal includes all the local, state, and Federal agencies such as banks, accountants, lawyers, realtors, Chamber of Commerce, or the Small Business Administration (SBA). Because it is often seen as both expensive and time-consuming, all but the latter offer help to new firms as only a small part of their services. Moreover, in their interaction with the entrepreneur they are not usually in the business of diagnosing needs, but rather of satisfying them by responding to specific requests. The informal network includes family, friends, previous colleagues, or previous employers, a group which whilst it may be less informed about the options and schemes open to the entrepreneur, is more likely to be willing to listen and to give advice. Thus there are problems with both sources—the formal sources may or may not have their own established networks and may deter by their bureaucracy, and the informal may help to create a replica of previous employment. Nevertheless, both are important in helping the entrepreneur seek the optimum arrangement for his firm. The question posed in this study was the extent to which both were used by entrepreneur in assembling resources in a midwest county which, over the period studied, had suffered severe economic decline and had no new firm strategy.

PREVIOUS RESEARCH

The area of entrepreneurship that has received the most research attention is that of the characteristics and definition of the entrepreneur (Hull et al. 1980; Petrov 1980; Liles 1974). Classifications abound that range from those concerned with orientation (Cooper and Dunkelbery 1981; Carland et al. 1984), to those concerned with needs (Liles 1974), to those based upon industry (Webster 1977). Very rarely, however, is entrepreneurial skill itself defined other than as the process of creating a new business. Long (1983) defines it as "creative opportunism," a phrase that suggests an instinctive ability not only to recognize possibilities but also to make them happen. Combined with Vesper's (1983) findings that contacts are usually the main source of new firm ideas, this is an appealing definition. Indeed,

MacMillan (1983) propounds the theory that building contacts and networks is the prime factor in determining the success of any firm. Beyond this, as Ambrose and Koepke (1984) note, the literature on networking in relation to small firms is very sparse. Vesper (1983) in his report on entrepreneurship and national policy refers to the need for adequate contacts and lists a number of formal "environmental helps," but comments that "just what stops a would-be entrepreneur from proceeding with a venture . . . has been given little or no formal study."

The literature on the entrepreneurial environment tends to concentrate upon the incubator organization, referring usually to the previous employment of the entrepreneur. Cooper (1981) summarizes the factors that relate the incubator to the entrepreneurial process as location, nature of business, type of organization, motivation, size, and team formation. The results of this and other studies conclude that entrepreneurs tend to come from smaller, for-profit organizations, and they tend to start similar businesses, in the same location, and with previous colleagues as partners. Clearly, for these firms, some form of local network is in place.

Beyond this, a few studies, notably those by Schell and Davig (1981), Bearse (1981), and Pennings (1982) have attempted to correlate community characteristics to the level of entrepreneurial activity. Each study isolated five distinct but different factors, all of which are quantifiable, for example, the proportion of immigrants (Pennings 1982), median family income (Schell and Davig 1981), or education levels (Bearse 1981). Bruno and Tyebjge (1982) suggest a further list, which concentrates on more subjective factors such as "favorable governmental policies." Building upon this, Schell (1983) proposes a model of community entrepreneurship, which refers to the role of both formal and informal networks in his components of "level of encouragement of entrepreneurship in the community by the macro-entrepreneurs" and "encouragement by Federal, state, and local government." He concludes his preliminary testing of this model by stating that the two most important research issues center around the relationship of the entrepreneurial pool of people to the power elite and the role of the informal venture capitalist in linking the entrepreneur to the power elite.

Thus research about the entrepreneurial process requires greater precision about the way in which the potential entrepreneur seeks to use the environment in creating the optimum business format out of his product idea. It is not merely that schemes should be created, but that they should be understood by those administering them and seen to be available by those wishing to use them.

BACKGROUND

This study was conducted in St. Joseph County in northern Indiana, and as is outlined in an earlier paper (Birley 1984) it may be viewed as reflecting in microcosm those patterns of unemployment and population shift experienced by most of the declining midwest states. It was in response to this general decline in business climate that a fund was raised by South Bend in 1982 (the main town in the county) to create and manage a new industrial strategy, called Project Future. There were three main goals: 1) to encourage existing companies to relocate within the area, or to open up new branches in the area; 2) to help existing firms to grow; and 3) to encourage the start-up of new firms.

Prior to 1982, there had been no collective small firm or new firm strategy in the area, and apart from an apparently dormant SBA branch office, little evident institutional activity. Moreover, whilst it was clear that entrepreneurs were active because new firms were evident, there were no data on the size or characteristics of the population nor of any difficulties

encountered during the start-up phase. However, if the patterns discovered in studies elsewhere were repeated, entrepreneurs would be starting firms in industries related to their previous employment; in an area dominated by declining or failing engineering companies, this strategy could be a recipe for individual disaster. Therefore, before designing a strategy to improve the environment, it was first necessary to ask three questions: what does the environment look like; does it really need changing; and if so, in what ways? These questions formed the basis for the research, which was designed in two stages: stage 1—identification of population trends by studying all new firms started between 1977 and 1982 and analyzing their birth and death patterns, the industrial patterns, and job generation characteristics; and stage 2—questionnaire survey to those firms started during the period that had survived.

This paper deals with the results of stage 2. Stage 1 data are analyzed in earlier papers (Birley 1984a; 1984b). Three research questions were posited:

1. Would the St. Joseph County entrepreneur have similar characteristics to those found elsewhere? The factors studied included domestic environment, age, education, and previous job experience.
2. What was the extent of the usage of the formal and informal networks in the start-up process?
3. Was there any clustering of factors that discriminated between the use of formal and informal networks? In particular, would those companies starting in unfamiliar industries make more use of the formal networks?

RESEARCH METHODOLOGY

The major difficulty encountered in research into new firms is the lack of available reliable data. After exploring four possible sources—Dun and Bradstreet, Chamber of Commerce listings, the telephone directory, and Unemployment Security Statistics (ES202)—the latter was chosen as the most comprehensive. (For a full discussion of the reasons for this, see Birley 1984b.) A summary of the populations identified by three of the sources is seen in Table 1 below. The listings of the Chamber of Commerce were eliminated immediately because the nature of membership suggested a significant bias towards the larger firm or the professional firm.

TABLE 1 Number of New Firms by SIC Category (1977–1982)

SIC category ^a	Data source		
	ES202	Telephone directory	DMI files
Agriculture	22	20	1
Manufacturing	94	73	52
Service	479	407	31
Construction	153	97	14
Finance	97	69	6
Transport	61	37	6
Wholesale	"	"	23
Retail	"	"	70
Total	906	703	203

^aDid not collect.

Unfortunately, the data on the ES202 listings does not include the address of the company and to preserve the integrity of the State sources, it was not made available. Therefore, for the purposes of the survey, company addresses were sought from the telephone directory, giving a population to be surveyed of 703 firms. Questionnaires were sent to all these firms, and 175 replies were received, of which 160 were usable.

The actual response rate is probably higher than the 25% shown here. In stage 1 of this research it was found that between 10% and 17% of firms in the county ceased trading during their first year, and a year had elapsed between collecting the data by ES202 and sending the questionnaire. Indeed, telephone interviews and visits to the premises indicated that a number of firms had already ceased trading. What was encouraging, however, was that the pattern of responses mirrored the distribution of SIC categories found in the original scan which gave the base population of 906 firms.

The questionnaire was designed as multiple choice for ease of completion, except for two questions that asked the entrepreneurs for reflections on their decision to start their own firms and upon the problems they encountered. It was piloted on a group of local small firm owners who did not participate in the survey. The results were analyzed using the SAS statistical analysis package.

THE RESULTS

The New Firm Characteristics

The aggregate pattern of entrepreneurial behavior in St. Joseph County was similar to that found in other studies (Gartner 1984; Cooper 1984). Thus it involved the following:

1. Local people—79% had lived in the county more than 10 years, with 39% having been born there.
2. From small companies—61% had previously worked in companies employing fewer than 100 people; only 9% were unemployed prior to starting.
3. Starting small companies—90% started with one or two employees, excluding the owners, and have subsequently grown very little.
4. In similar industries—66% had started a company that had some relationship to their previous employment, either as customer, competitor, or supplier.
5. Were local in nature—81% of customers were within a three-hour drive, with 51% being within St. Joseph County itself; 68% of all suppliers were within a three-hour drive.

Thus the process is essentially geographically constrained (see Fig. 2).

This process is very acceptable when the local economy is in balance, with the larger companies providing the necessary infrastructure for the new, small firms to start, survive,

FIGURE 2



and grow. However, this was not the case in St. Joseph County, because over the period studied a number of key local firms both large and small had moved away, closed down, or contracted—a phenomenon seen in many “smoke-stack” areas in the US and Western Europe. Despite this, the pattern of firm births and deaths had remained consistent (Birley 1984a).

There were, nevertheless, a number of atypical firms, those that were either started by newcomers to the community, in specialist industry sectors, selling in wider markets, or growing. However, the results of subsequent multivariate analyses showed no apparent relationship between the factors described, with one exception. A small, but significant, number of service firms were started by people who had moved into the county in order to start their business. However, these firms were no larger, nor did they serve wider markets than the home-grown firms.

The Support Network

The main part of the study was concerned with the entrepreneur’s use of networks: the extent to which he sought and received help from the various potential sources. If these were used currently, appropriately, and satisfactorily, the need for further systems would be questioned.

Available sources of help were listed and respondents were asked to rank the value of that source in assembling the resources of the firm. No ranking for a category indicated that as far as the entrepreneur was concerned, no help was received. The sources listed are shown in Table 2 as they were used in subsequent analysis. In the questionnaire not only were they mixed, but the order was changed for each question in order to prevent patterning by the respondent.

The results were startling. Despite the population of 220,000 St. Joseph County being relatively small, with a strong and active local community, the formal sources were hardly used. Table 3 lists those sources that were ranked as prime.

Whilst the start-up process is iterative, most entrepreneurs tentatively assemble the fixed costs of their business (group A) and identify potential revenue sources (group B) before seeking finance (group C). Dividing the data in this way highlights clear differences thus:

Informal contacts, mainly business contacts, are seen overall to be the most helpful in assembling the elements of the business.

Family and friends are the most useful where local issues are concerned, as with the seeking of location and employees. This applies to sales also and may explain in part the concentration upon local sales in most of the companies studied.

TABLE 2 Potential Sources of Help

Formal sources	Informal sources
Bank	Business contacts
Accountant	Other contacts
Lawyer	Family
Local government	Personal friends
Chamber of Commerce	
Realtor	
Small Business Administration	

TABLE 3 Prime Source of Help: Number of Firms

	Formal sources	Informal sources			No help
		Contacts	Family or friends	Cold contact	
<i>Group A</i>					
Raw Materials/supplies	6	47	5	21	50
Equipment	16	75	7	27	35
Location/premises	7	64	35	40	14
Employees	5	57	34	39	25
<i>Group B</i>					
Sales	23	70	35	26	6
<i>Group C</i>					
Seeking finance	79	18	27	27	9
Finance source	53	6	79	7	15

The formal sources come to the fore when the elements of the firm are set and the entrepreneur is seeking to raise finance. It is hardly surprising, therefore, that the institution mentioned most of the time was the bank.

All other formal, declared sources of help, including the SBA, were mentioned on very few occasions.

However, these were the prime sources of help, not the sole source. It was expected that the efficient entrepreneur would seek help from a variety of sources in both types of network. Therefore, the primary, secondary, and tertiary ranked sources were weighted according to their ranks and a score computed for each type of resource needed. In only a few cases were more than three sources mentioned. The results are shown in Table 4. Using

TABLE 4 Sources of Help Ranked by Overall Usage

	Formal sources	Informal sources		
		Contacts	Family or friends	Cold contact
<i>Group A</i>				
Raw Materials/supplies	4	1	3	2
Equipment	3 =	1	3 =	2
Location/premises	4	1	3	2
Employees	4	1	3	2
<i>Group B</i>				
Sales	4	1	2	3
<i>Group C</i>				
Seeking finance	1	4	2	3
Finance source	2	3	1	4

sales as an example, the most used sources for help were the informal sources of business contacts, followed by family and friends. The least used were the formal sources.

These data further reinforce the reliance of the entrepreneur upon his network of informal contacts as a primary source of help when assembling the elements of his firm. Moreover, the second most used source was that of the cold contact, the direct approach. This involved, for example, newspaper advertisements for employees, mailshots, or letters to equipment manufacturers and raw material suppliers, and scanning the newspapers for available premises. Many of these activities could have been short-circuited had the formal network been approached earlier or used more.

We linked these results with those from the part of the survey that asked for the major difficulties encountered by the entrepreneur during the start-up process. Despite the form of an open-ended question, the overwhelming volume of replies concerned funding as the one area in which external help was most sought. Whilst it is not possible in this research to infer any causality for this, there are clues. The majority of the respondents came from skill-based or managerial backgrounds, but had little or no experience in finance. So the help that was sought was probably outside both their experience and their business contact network.

Multivariate analysis was conducted in an attempt to identify any patterns in the use of networks, but with one small exception, no significant patterns emerged. Those entrepreneurs who had moved into the area used and valued the services of the bank much more than those already living in the county. They did not, however, appear to have been subsequently fed into the local formal network when seeking the other resources of their business. Moreover, there was no significant difference between the growth and no-growth firms in any of the factors measured. It would appear that in this county, all types of entrepreneurs use their local networks in the same way.

CONCLUSION AND RECOMMENDATIONS

The data for this study were collected during a period when no strategy for encouraging the small firm sector existed. Each institution offered its normal services to all customers, but did not advertise any special help for small or new firms. Moreover, whilst in such a small community the formal system certainly had its own informal network, this was not promoted as a service to customers. Nevertheless, the formal and informal networks could be expected to be interlinked inextricably. It was from this base of nonintervention that the strategy for Project Future was to be formed: that strategy would include an objective of improving the supply of new firms in the area and of providing services that would support a healthier small firm sector. Ideally, the strategy would be focused on firms that were likely to survive and grow, and thus provide either more jobs or more wealth to the community.

This study was concerned with understanding the start-up process: the backgrounds of the people, the businesses they started, and the networks they used. Very clear results emerged. In St. Joseph County, firms tend to be started by local people using their own informal business and personal networks to form locally based firms.

The choice of networks is key in understanding the nature of the subsequent firm, because it is during the start-up process that the elements of the firm are set. Decisions are made upon what type of resources to use, sources for them, and what size the firm should be. In using only his business contacts and family, the entrepreneur is likely to re-create the elements of previous employment, even when he may be starting a business in a different

market. Thus he may, for example, be unaware of leasing, or employing people on a freelance basis, or the need for manual rather than computer-based control systems. Moreover, in seeking his resources, the entrepreneur is, albeit subconsciously, seeking reassurance that the decisions are correct and the business viable. Whilst the informal contacts may be able to provide support, they may not be qualified to provide an unbiased judgement.

An efficient network is one in which, no matter where the entrepreneur enters the network, his needs are diagnosed and he is passed round the system until he gathers the necessary information and advice. This does not require that all entry points should provide diagnostic as well as counseling services, but rather that each should be clear on what services they and others are offering. Indeed, it may be very cost ineffective, for example, for the banks to do other than lend money; on the other hand, they should be aware of the services that, say, the local accountants provide, so that they can help the entrepreneur efficiently through the system. An inefficient use of the formal infrastructure can lead to poor advice and lack of use of the many schemes available.

From this research, the system is not working efficiently in St. Joseph County. The informal system appears to create a barrier to the formal system rather than acting as a conduit. It is unlikely that this is intentional, but either results from ignorance of the role that the formal system can play or because the formal system actively discourages the entrepreneur. However, because such networks are impossible to identify, strategies must be designed to increase the awareness of the community as a whole to the formal sources of help and advice that are available. There are two ways to approach this. First, the banks, accountants, lawyers, Chamber of Commerce, and all others in the formal system could exchange information on the various schemes and services they offer. Moreover, these services would be advertised regularly so that all in the community are aware that they exist. In this way the entrepreneur can enter the network at any point. The difficulty with this is the need for all the elements of the formal network to develop diagnostic and counseling skills—expensive and time consuming. For these reasons St. Joseph County has decided to adopt a second strategy. In this case, a central clearing house, an enterprise office offering information and advice has been set up so that the information exchange is kept to a minimum and those in the formal system stick to their own special skills.

Firms that sell only locally are vulnerable to local economic trends. However, many of the firms studied had potential to attack wider markets and appeared to be constrained merely by their local backgrounds and limited horizons. Unfortunately, they did not fall into any grouping that could be identified and thus targeted during the start-up process, nor is this necessarily appropriate until the firm has survived the initial period and has established a viable local base. The secondary role of an enterprise office would be to monitor these new firms, and to develop strategies for finding new customers and new markets in new fields in the longer term.

This study was based on the premise that the process of testing the idea and assembling the necessary resources prior to the commencement of trading of a new venture can often be protracted. Consequently, a key factor in the process is the extent to which networks, both formal and informal, are used. Indeed, the creation of Small Business Development Centers, Business Technology Centers, and even the Small Business Administration itself, is partially based on this implicit assumption. Despite this, little evaluative work has been conducted. We do not know why or how the sophisticated networks of Boston's Route 128 or California's Silicon Valley have developed, although observers suggest that a necessary condition is a strong catalyst, such as the birth of Hewlett-Packard or the presence of a critical mass of a strong university group (*Economist* 1985). Perhaps the most important

conclusion from this research, therefore, is that we need to know much more about the type and effectiveness of such networks in nurturing new businesses in different social and economic climates.

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