



**SWP 24/90      ENTREPRENEURIAL NETWORKS: THEIR CREATION  
AND DEVELOPMENT IN DIFFERENT COUNTRIES**

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Sponsored by Northern Ireland Small Business Institute and the Department of Economic Development, Northern Ireland.

Submitted to the International Small Business Journal

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\* This study was generously funded by the Department of Economic Development (N Ireland) and by the Northern Ireland Small Business Institute. Many thanks to Patrica McCourt for her help in collecting the data for this investigation

ENTREPRENEURIAL NETWORKS: THEIR CREATION AND DEVELOPMENT  
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**ABSTRACT**

This paper discusses the need for information in organisations and the particular relevance of non-documented data which is gathered by managers from a network of personal contacts. It examines some of the issues involved in assessing the characteristics of personal networks and proposes that network activity, density and diversity are the crucial features of business networks. The paper suggests that personal networking is a particularly appropriate mechanism for information gathering by owner/managers of small organisations, examines the personal networks of 274 business proprietors and compares the findings of this study with similar ones conducted in the USA, Sweden and Italy.

Results indicate that entrepreneurial networks in N. Ireland are smaller than elsewhere and that little zeal is displayed in increasing their size. However, considerable energy is devoted to maintaining existing networks and they are relatively homogenous and more social in origin than in Sweden.

## ENTREPRENEURIAL NETWORKS: THEIR CREATION AND DEVELOPMENT IN DIFFERENT COUNTRIES

The primary purpose of most organisations is to produce goods and services which meet the needs of their clients. To accomplish this task resources are acquired, they are then arranged systematically to create end products and the latter are offered to clients. In organisations numerous decisions on the sourcing and allocation of resources are necessary and to discharge these duties effectively executives need an abundance of information. For example, in his study of the behaviour of senior managers Mintzberg (1973) noted that his sample regularly sought and received internal reports, information on external issues, project appraisals and proposals from peers and subordinates. In general, chief executives want an overview of their environments, a familiarity with the supply of resources and market conditions, an awareness of problems and potentials and a store of up-to-date facts, opinions and insights which will facilitate their negotiation and decision making activities (Mintzberg, 1973; Jonannisson, 1986A and Humphreys, 1987).

Chief executives need information but where will they get the necessary data? Two major sources are the myriad of reports, memos, mail and other written material which reach the manager's desk and verbal information gleaned from discussions, scheduled and unscheduled meetings, telephone calls etc. Senior managers can utilise these sources to gather information in a rational/logical manner or in a non-formal/ad-hoc way.

Humphreys (1967) considers that ad hoc interpersonal approaches such as informal lunches and contacts with friends are limited and inefficient but Mintzberg (1973) disagrees. He argues that managers, as information processors, have an advantage over non-managers "... not in the documented information that is widely available, and which takes much time to process, but in the current, non-documented information transmitted largely by word of mouth". p69. Agiular (1967) concurs. His research demonstrates "the relatively heavy reliance that managers place on their personal networks of communication". p94.

#### Information Gathering by Entrepreneurs

Many managers use both formal, structured, written and non-formal, non-routine, verbal information sources, with a preference for the latter (Mintzberg, 1973) but Johannisson (1986A) feels that personal networking is a particularly valuable method of information gathering for entrepreneurs. He argues that entrepreneurs are rarely rational decision makers, rather they are action oriented persons who seek situations which enable them to get things done. This being the case live, up-to-date information and the opinions and know-how of peers is more relevant than written data. Their action orientation produces an aversion to information overload and the planned collections of data. The latter might provide disconfirming evidence about a particular project, promote caution and destroy the vital spark that activates the entrepreneur. Johannisson considers also that networking is commensurate with the egocentric nature of business

proprietorship. Entrepreneurs frequently adopt a personalised as opposed to an administrative approach to management and a network of contacts reinforces this way of doing things.

Johannisson notes that an emphasis on planning, formalisation and structure in organisations assumes that the business environment is predictable or can be controlled. However, entrepreneurial firms rarely have the power to control environments, indeed Mintzberg (1979) argues that they thrive in changeable conditions. Networking, with its emphasis on informality and opportunism would seem to be an ideal mechanism for effectiveness in variable environmental conditions. In general networks are a particularly useful resource for entrepreneurs: indeed Peterson and Rondstadt (1986) consider that entrepreneurial success is a function of the **new venture idea**, and entrepreneurial **know how** and **entrepreneurial know who**.

### The features of networks

We have argued that many managers, and in particular owner/managers, are at the centre of their own intelligence gathering networks and that they make extensive use of informal contacts to gather business information. However, we have not made direct reference to the characteristics of networks.

Networks, like organisation structures, are abstract concepts but the former are even more difficult to analyse because each set of interconnections is unique to the focal person who creates it, because members of networks do not usually disclose their contacts and because they rarely discuss the nature of their

association with others. Consequently, Johannisson (1986B) describes them as loosely coupled systems with fuzzy boundaries and this casualness and the fact that individual networks are strongly influenced by the personality of the focal actor make it rather difficult to develop models of networks.

In spite of these difficulties attempts have been made to examine networks and we shall discuss some of their key features.

Aldrich and Zimmer (1985) consider that networks comprise those persons with whom the central character has a direct relationship and those individuals with whom he has an indirect relationship by courtesy of that direct contact. Clearly, direct associations are most important: the more people an entrepreneur knows and the more frequently they interact the greater is his access to information and resources. Networks do not emerge without considerable endeavour. Entrepreneurs have to work hard to develop relationships; they have to persuade, socialise, bargain, reciprocate etc with others to create a relationship and then maintain it. Those persons with small networks may lack the social and interpersonal skills and the energy that is required to create interconnections. Aldrich and Zimmer (1986) measure network activity by the number of persons with whom the focal role interacts directly while Johannisson and Johnsson (1988) include the frequency with which they interact and the time spent, including time spent on journeys, in building and maintaining the network. In view of the fact that a direct contact with an individual may make the latter's own personal

network available to the focal individual Johannisson assesses the perceived size of these secondary networks.

The size of the network and energy expended in developing it is important but so is its density. If all the individuals in the personal network of an entrepreneur have associations with one another, in addition to their links with the focal entrepreneur, then we have a very dense network and information can be dispersed rapidly throughout its channels. For example, an entrepreneur may know persons A, B and C but if A also knows B and C and B interacts with C this network is dense. Aldrich et. al. (1986) measure the density of networks by asking the focal person in the network to predict how well all the members of his network know one another and then they express the proportion of persons who know one another well as a percentage of the potential number of close associations which would occur if every person in a network knew every other person well.

Direct or indirect ties, the number of contacts and the density of networks are not the only factors which influence the strength of associations. Johannisson notes that ties between persons can be instrumental, affective and moral. If two persons have a purely instrumental association reciprocity will be all important and they may limit their interaction to the exchange of information on a specific issue. If two persons in a network have instrumental and affective ties one or both parties may use their contacts in other networks to glean information for their 'friend' and may initiate unsolicited action on behalf of their associate. If moral commitment exists between the parties they

may feel duty bound to do all they can for each other. In the latter case the individuals may make the totality of their roles and their concomitant networks available to the other.

Johannisson and Johnsson (1988) suggest that purely business associations will be instrumental while contacts with friends will be affective.

The final feature of networks measured by Aldrich is their diversity. If entrepreneurs and chief executives use networks to gather information homogenous, incestuous networks will usually provide information which is limited in its scope: it is much better to obtain data from diverse sources; from lawyers, government agents, suppliers, friends, financiers, universities etc. Divergent sources may have differing perspectives on the same issue and are likely to have access to a variety of information which may be of use to the focal person.

### Developing networks

Having discussed the importance and features of networks, let us say a little about the process by which large, diverse and dense networks of contacts emerge.

Birley and Cromie (1988) argue that entrepreneurs, at an early stage of enterprise development, rely heavily on an informal network of friends, family members and social contacts from the local neighbourhood to gather relevant data. At a later stage entrepreneurs rely increasingly on professional bankers, accountants, lawyers, suppliers, government agencies etc to gain

access to requisite business information. These professional networks are more difficult to create than social networks since most contacts will be strangers and a degree of interpersonal skill is needed to develop an effective relationship. Gill (1988) notes an additional problem: the difference in social status between professional advisors and business founders. Gill found that some members of his sample needed skills in "... dealing competently with high status, awe-inspiring professionals such as solicitors, bank managers and accountants". If the business founder is successful in incorporating professionals into his network it is conceivable that these instrumental relationships might develop into affective and/or moral associations with a commensurate increase in the density and diversity of the personal network. Birley and Cromie note that personal and professional networks may well be supplemented by the artificial small firms networks that exist in many parts of the UK. A variety of agencies provide money, advice, an increasing range of services and various contacts to support the start up and growth of small enterprises. While state agencies may inaugurate connections it is up to the business founder to incorporate 'artificial' contacts into his own personal network.

### **Cross National Differences in Networking**

Since networking is a rather informal, idiosyncratic mechanism of information gathering for decision making it is plausible that owner/managers in different countries will take differing approaches to the process. The literature indicates that

organisations in different countries structure their decision making differently: indeed subsidiaries of multinational companies located in foreign countries have different decision making arrangements than indigenous firms. (Negandhi, 1979; Ajiloge, 1980; Mallory et al, 1983).

Structural aspects of decision making are one thing but do managers in different countries differ in their decision making processes? Societal differences, for example, "The predominant American values of rugged individualism, a frontier spirit, a revolutionary character conducive to change and mobility" as opposed to the "...longer history of British society, its traditions and its stability" (McMillan et al, 1972, p. 157) may well be reflected in the approach managers take when making decisions. In their literature review of the differences in decision making processes across countries Mallory et al (1983) conclude that British managers interact less with subordinates and with more formality than American counterparts; indeed they suggest that American decision making practices blend "informal interaction with formalised standard procedures". In their empirical work Mallory and his associates compare decision making processes in American subsidiary companies located in Britain with those of comparable British owned subsidiaries and report that American firms "tend to rely on informal groups to progress decisions fairly quickly without following observable plans of action". The "lower interaction formality, procedural standardisation, and duration" contrast starkly with the decision making processes in British owned subsidiaries. We have noted

already that networks are informal "loosely coupled systems with fuzzy boundaries" and these attributes would seem to fit in with the American processes of decision making. In view of this it seems reasonable to suggest that American owner/managers might be more active networkers than their opposite numbers in Europe.

While national preferences in decision making are important other contextual factors can influence the networking activities of business proprietors. For example, in Sweden a national campaign to revitalise rural areas focuses on municipalities who select individuals to promote, among other things, the idea of local development via new firm formation. One of the key tasks of these "community entrepreneurs" is to build networks of contacts who can be of use to autonomous entrepreneurs.

Johannisson and Nilsson (1989) suggest that "the most fundamental mission of the community entrepreneur is to develop and maintain a socioeconomic network as a resource pool for autonomous entrepreneurs" p6. By actively encouraging community networking as an entrepreneurial resource it seems likely that autonomous entrepreneurs in Sweden will be predisposed to the networking principle and it is more than possible that Swedish proprietors, in spite of recent community network initiatives in Northern Ireland, will be more active networkers than venture owners in the Province.

## THIS STUDY

To date we have argued that business networking is an important activity for owner managers; network density and diversity, as well as network activity, are topics worthy of consideration; family and friends are the most likely contacts for growing firms; and that proprietors in different countries will exhibit different networking styles. In this study we seek empirical support for these contentions. To achieve the latter we asked owner/managers in Northern Ireland to complete a modified version of a networking questionnaire which has already been administered to 227 American and 384 Swedish business proprietors. Although the results of these three studies are not exactly comparable (because of local modifications) sufficient data is available to answer the following questions: (a) is networking an important activity for owner/managers? (b) are American proprietors more active networkers than Europeans? (c) do Swedish founders network to a greater extent than those in Northern Ireland? (d) does the tiny geographical size of Northern Ireland result in particularly dense networks? (e) does the closely knit society in Ulster produce homogeneous interconnections between entrepreneurs? and (f) are family and friends the usual associates of the owners of young firms. Having presented the issues we are interested in let us proceed to discuss our methodology.

## The Sample

Since no adequate sampling frame for small firms exists in Northern Ireland the researchers utilised names and addresses supplied by several business support agencies to administer a postal questionnaire to more than one thousand respondents. Questionnaires were sent to most of the persons on the agency lists but we exercised some selectivity to ensure that owners from a variety of geographical locations were selected. In the event 64% of respondents were drawn from the Belfast Travel to Work Area: a proportion that is in keeping with the geographical distribution of the population in the province. In view of the prior interests of one of the authors it is likely that women are over-represented in this study. The questionnaire was sent to a sample of 1150 owner-managers, and 274 usable replies were received. The authors have no reason to believe that they are a biased sample of the owner-managers in Northern Ireland, other than that they have shown a propensity to use the existing advisory agencies. Three quarters of the sample were men, and three quarters were married. Just over one third of respondents had been in business for less than two years, one quarter were in business between two and five years and the remainder had been trading for more than five years. Overall, the sample had been trading for about four years.

Whilst the majority of owners were already trading when they received our questionnaire ten per cent were in the process of launching their ventures. Just over half of the sample created sole proprietorships, a quarter developed limited liability

companies while one fifth took formal partners. The mean number of employees per firm is 10.1 which indicates that our sample are predominantly small firms. Turning to the employment backgrounds of our sample we find that the great majority were in full-time employment prior to business founding and that half were private sector employees. Approximately a quarter of the sample owned another business prior to their current one although about half started a venture which they perceived to have no commercial link with their previous employment.

### The Questions

To discover the extent to which our sample networked we asked them a number of pertinent questions, using a modified version of Aldrich et al's (1986) questionnaire. The questions were modified to accommodate local language and to respond to some confusion that occurred when piloting the questionnaire on twelve local entrepreneurs. Turning to the subject matter of the questionnaire we consider that people who are actively involved with clubs, societies and the like are more likely to be effective networkers than others and we enquired therefore, about the extent to which our sample were members of clubs, etc in their present situation and in their schooldays. We enquired also about their tendency to take positions of responsibility. These activities are regarded as a surrogate for networking.

Networking is action oriented and we investigated the networking activity of the sample. In the first instance we enquired about

the number of persons in each entrepreneur's network on the assumption that the greater the amount of energy expended the larger the resulting networks. In addition we asked about the amount of time respondents spent in developing new contacts and in maintaining existing ones. In our pilot study it emerged that some respondents differentiated between contact with customers and other associates. We responded by including questions about the time spend developing and maintaining customer and non-customer linkages. In addition, we asked each respondent to list five people that they particularly liked to talk to about business matters and we called this group the "personal contact network" of the proprietors.

To assess network activity we invited respondents to tell us on how many occasions per month they were in touch with these persons and to say how long they had known them. To assess the size of the secondary networks that were available to our focal entrepreneurs we asked them, in respect of five persons in the "personal contact networks" to indicate how big they thought the personal contact networks of their contacts were. To explore further the process by which personal contact networks are created we asked our sample to say if they initiated the link up with the individuals in their networks, if the contact persons got in touch with the focal entrepreneurs or if third parties instigated the association.

Networking takes time and efforts to make face-to-face contact often requires travelling. To give us an indication of the amount of energy expended in this manner and the geographical

location of network contacts we asked respondents for information on the number of hours per month they spent on journeys for the purpose of developing or maintaining contacts. The final issue of interest on network activity was the degree to which owners/managers personally monopolised networking activity in their organisations. To provide this information we asked what percentage of existing contacts had contact with other persons within the firm.

Next we assessed the density of networks. Density means the comprehensiveness of the associations between all individuals in the network and is measured by " ... comparing the total number of ties present to the potential number that would occur if everyone in the network were connected to everyone else", Aldrich (1989, p3). In the questionnaire, respondents were asked to describe their conception of the relationship between their five personal contacts and they were offered four possibilities: the persons (A) don't know each other, (B) know each other slightly, (C) know each other well, (D) I have no idea if the people know one another. Aldrich's measure of density records the proportion of strangers: the higher the proportion the less dense the network. In practice the proportion of strangers =  $[A+D]/[A+B+C+D]$ .

Network diversity is the next area of interest and it refers to the kind of people the focal entrepreneur has associations with. We wanted to know if they were friends, accountants, employees, etc., if they were male or female and if the role set was



homogeneous or heterogeneous. In our questionnaire we asked respondents, in respect of the five persons in their personal contact network, to disclose their gender, age, occupation and the kind of relationships - friendship, business, family, etc. - they had.

## RESULTS

### Network Activity

On the issue of club membership all respondents reported that they had been a member of at least one club at some time during their lifetime and 60% had held at least one position of responsibility. On average, the sample had been a member of 4.5 clubs and held almost two positions of responsibility although the most fruitful milieu for club membership was during schooldays. In adult life social clubs were most popular followed by professional associations and voluntary clubs. The overall pattern of club membership is shown in Table I and indicates that our sample are quite outward looking, are happy to meet people and are quite prepared to take on positions of responsibility.

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Insert Table 1 here  
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While the propensity to join clubs gives some indication of the tendency to network the number of people in the entrepreneur's personal contact network and the time spent developing and maintaining it are much more direct measures of network activity. We find that our sample have a mean number of 7.2 direct contacts

(median value is less than 5) and this is significantly lower ( $t=2.67$ ;  $df=483$ ,  $p<0.01$ ) than the number (9.5) reported by Aldrich et. al. (1989) in his study of American entrepreneurs, and on a par with that of Italian business proprietors (Aldrich et.al. 1989). Johannisson and Nilsson (1989) do not present an arithmetic mean on this issue but they note that 28% of their sample have more than ten persons in their personal network. In contrast, merely 19% of Irish proprietors have in excess of ten contacts. Our sample have, therefore, less extensive direct contact networks than American or Swedish founders. These results offer tentative support for our contention that Americans, with their informal approach to decision making, are more active networkers than Europeans and that the action of community entrepreneurs in Sweden helps create more networks among autonomous entrepreneurs than their Irish counterparts.

Network associates, of themselves, are extremely useful to focal entrepreneurs but there is an additional attraction; secondary/indirect networks which may become available. As Johannisson and Johnsson (1988) say "it can generally be hypothesised that persons in the primary network , i.e. those network members with whom the entrepreneurs have direct linkages, have in turn elaborate networks". Table 2 shows that the Irish do not believe that their proprietors' secondary networks are as large as their Swedish counterparts and this lends weight to our suggestion of more extensive networks in Sweden. However, many of our Irish respondents believe that their contacts have large secondary networks which are

potentially available to them. While smaller than those in Sweden or the USA networks in Northern Ireland are quite extensive.

Further analysis of our data reveals that respondents spend 10.4 hours per week maintaining contacts with existing customers, 6.0 hours per week maintaining links with other contacts, 8.3 hours per week attempting to attract new customers and 4.7 hours per week in developing links with other members of the personal contact network (See Table 3). Clearly a substantial proportion of the working week of our sample is devoted to networking and attracting customers.

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Insert Table 2 and 3 here  
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We have no strictly comparable data from the USA or Italy on this issue since the researchers in these countries do not distinguish between associations with customers and non-customers but Table 3 suggests that Irish entrepreneurs spend less time in developing new non-customer contacts compared with Americans and Italians and Table 4 shows that our sample spend much less time developing new contacts compared to Swedish entrepreneurs. Forty-three per cent of Swedes devote more than five hours per week to developing new contacts compared to 26% of the Irish. This reluctance to expend energy could account for the relatively small networks of our respondents. However, they are much closer to the comparison groups on the issue of maintaining contacts, indeed as we shall show in the next paragraph, the Irish sample are more proactive than their Swedish counterparts in initiating discussions with

network associates. In summary, while the Irish actively maintain their existing networks they could well benefit from increased action aimed at expanding their size.

Networks are useful only when they are utilised and important indicators of activity and strength are provided by the frequency of contact between members and the length of time the parties have been connected. Networks are inclined to become more useful with age as relationships develop and individuals learn how to get the best out of them. Our data reveals that respondents make contact with each of their five most widely used contacts about eleven times per month and have known them for around eight years. Comparative data provided by Johannisson and Johnsson (1988) show that 64% of Swedish proprietors discuss business issues with their network contacts on 6 or more occasions per month and that they knew them, on average, for 11.2 years. Our sample have therefore had links with their network contacts for quite considerable time and have frequent discussions about business matters with them. In addition, our sample are proactive in initiating these discussions: on 50% of occasions proprietors initiate the contacts, on approximately one quarter of occasions the contact person inaugurates the association while on the remainder of occasions a third person brings the two parties together. The frequent discussions with these associates and the longevity of the relationships confirms that our sample maintain and utilise existing networks and view network linkages as an important aspect of their managerial work.

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Insert Table 4 here  
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There is one final aspect of networking activity which is worthy of note. While our proprietors spend a good proportion of their time in discussion with outsiders it is interesting to note that these same outsiders have few contacts with other employees in these organisations. Approximately 70% of respondents report that less than 25% of their new and existing contacts, including customers, have links with other persons in their firm. It appears, therefore, that networking is primarily the demense of the chief executive and that (s)he does not readily delegate this activity to subordinates. We argued in our introduction that senior managers are at the hub of their own information gathering network and our research evidence suggests that proprietors personally manage their gathering systems.

The foregoing discussion indicates that networking occupies a significant place in the working lives of our sample and the comparison groups; that founders in the USA have larger networks than Europeans; and that Northern Irish proprietors have smaller direct and indirect networks and are less active in creating contacts than Swedish owners. The Irish do, however, utilise and expend considerable energy in maintaining those networks which they do have.

### **Network Density**

The next issue of interest is the density of our entrepreneurs' networks. Aldrich measured density by noting the proportion of strangers in the network and we find that the percentage of

strangers in networks in Northern Ireland is 40.6%, in America it is 42.6%, in Italy, 45.4% and in Sweden 42%, Aldrich et al (1989). If we make a statistical comparison of the differences in sample proportions between the USA and Northern Ireland we find that the differences are not significant ( $Z = 0.54$ ) and that the corresponding statistic for Italy is not significant either ( $Z = 0.71$ ). It was our expectation that the limited geographical size of the Province would lead to the development of particularly dense networks but this does not appear to have occurred. There are more bi-lateral than multi-lateral relationships in the networks. If the individuals in personal contact networks are strongly interconnected this can encourage many direct, as opposed to indirect associations, create affective and moral, as well as instrumental, ties and determine " ..... the speed with which information circulates to network members. The more ties between members, the more quickly information is likely to diffuse, as word of an opportunity or resource can be passed on from several people" Aldrich et. al. (1989). If the network is dense it will also place many secondary networks at the disposal of the focal entrepreneur. Northern Ireland, while its networks are slightly more dense than comparison countries does not seem to be in the position to reap the benefits outlined by Aldrich et al. There are quite a lot of strangers in personal contact networks.

### Network Diversity

We argued above that there is an advantage in having a heterogeneous rather than a homogeneous network since this will ensure that diverse information and resources are potentially available to the proprietor. Let us comment, therefore, on the diversity of networks in this study. In Table 5 we present some data on the gender and age distribution of the personal contact networks of our sample.

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Insert Table 5 here  
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If we consider that 25% of our respondents are women and note that the proportion of females in personal contact networks varies from 15 - 19% it appears that females are more likely to include men among their associates than vice versa. Since contacts are courted for their information and access to resources and since most senior positions in organisations are filled by men this bias in favour of men is understandable. Similar reason can explain the age distribution of contacts. They all have a mean age of more than forty (see Table 5); indeed when we examine the age distribution of contacts one through five we discover that as few as 10% of them were less than thirty years of age. As a general rule older people have more associates than young persons and this allows them to glean vital commercial information which can be made available to their personal contact networks.

Network diversity is measured further by the nature of the relationship the focal person has with persons in his personal

contact network and their backgrounds. Table 6 shows the type of relationship described, Table 7 the type of occupation and Table 8 the connection in which the owner manager first met the contact. The data reveal that our sample rely heavily on their business networks, less so on social contacts and even less heavily on family contacts. If we regard both family and friends as social contacts our results suggest that our sample use personal and business associates to approximately the same extent. While the first contact is as likely to be a friend as a business associate the latter assume more importance with secondary and tertiary contacts. By combining family and friends as social contacts we can make some comparisons between the derivation of network ties in our study and that of Johannisson and Nilsson (1989). Thirty nine per cent of the ties in the Swedish study are social whereas 46% of our ties are of this type. Sixty one per cent of the Swedish connections are business oriented (peers, colleagues and professionals) compared to 54% among our respondents. On the basis of these results the Irish appear to utilise personal contacts more extensively than the Swedes. We did analyse the diversity of networks in new, young and mature firms but there is no direct evidence to support the contention that older firms rely more heavily on business as opposed to social contacts.

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Insert Tables 6, 7 and 8 here  
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Let us look in a little more detail at the nature of the business contacts in Ireland. Mintzberg (1973) argues that managers spend

considerable time developing networks of contacts and ensuring that the networks are diverse. In his words "... the contacts of chief executives have been found to include clients, business associates and suppliers, peers who manage their own organisations, government and trade organisation officials, co-directors, and independents (those with no relevant organisational affiliation)." In one of his empirical studies Mintzberg (1973) reveals the proportion of time chief executives spent with contacts. These proportions were: directors (7%); peers (16%); clients, suppliers, associates (20%); and independents (8%). The remainder of their contact time (48%) was spend with subordinates.

Turning to our study, Table 7 shows that our proprietors' contacts are predominantly employees in organisations other than their own ventures. Around two thirds of associations are with individuals who work in surrounding organisations and they include managers, clients, suppliers, engineers, technicians and government employees. These persons are employed in a range of business functions. In addition we suggested above that as firms develop their owners will incorporate a range of professionals, lawyers, accountants, etc, into their network of contacts and we can see in Table 7 that more than one fifth of the personal contact networks of ours sample subsume these individuals. In spite of the potential gap in social status between business founders and professionals they seem to be an indispensable source of information.

Perhaps the most surprising revelation about the occupation of contact persons is the dearth of owner managers. Our entrepreneurs do not seem inclined to discuss business issues with their peers: fellow owners. Running a business venture is a lonely, difficult task and it is somewhat surprising that our sample do not appear to share their experiences and seek advice from fellow travellers. While they may glean information about aspects of their business from engineers, lawyers, purchasing officers, etc fellow proprietors are the only persons who understand the totality of the owner manager's job and discussions about common problems could prove invaluable. This potential benefit may be counterbalanced, however, by a fear of disclosing information to potential competitors.

Another surprise is the lack of associations with people from small business support agencies. Many of the firms in the sample had some initial assistance from government bureaux but the indicators are, that once the early contact is over, there is no permanent link with the agencies. Proprietors may contact small business support staff on an ad hoc basis but the latter are not normally part of the personal contact network of our entrepreneurs.

In the study cited above Mintzberg shows that his chief executives spent almost half of their time with subordinates and, while it is no doubt true that our sample spend time in discussion with their employees, very, very few of the latter are part of our founders' personal contact networks. Once again, this is surprising: while it is important to liaise with outside

contacts, key employees are normally very well versed in the workings of their employing organisation and can offer pertinent advice. The neglect of subordinates in discussions about various aspects of running the business may occur because proprietors are fearful that "informed" employees will create their own venture, Watkins (1982).

In all, our sample have reasonably heterogeneous networks although about one third of them link with friends. While friends may well make contacts within their own networks available to their associates, friends are likely to think in similar ways, have similar experiences and provide the focal person with rather bland information. Strangers are more likely to have diverse information and views than friends.

### Conclusions

We argued in our introduction that owner managers require information to manage their enterprises and that they rely extensively on personal contacts, rather than written reports and formal meetings, to gather requisite information. This non-routine, informal data does not usually come to the proprietors: they have to expend energy and demonstrate skill in acquiring it. In the case of our sample we discover that the direct networks of focal entrepreneurs are smaller than those exhibited by international comparison groups, their indirect networks are less extensive and contacts have been courted for less time than in Sweden. In general, they spend less time than comparison groups

in creating networks. However, the Irish do spend a considerable amount of time in maintaining existing contacts, they interact more frequently with associates than Swedish entrepreneurs and they personally initiate contacts with other persons. They do not wait until other people come to them. The importance of networking to our proprietors is demonstrated further by the fact that they do most networking by themselves: they rarely involve their employees in the process. While the chief executive is the key co-ordinator in the business and needs, therefore, to be fully informed we should note that small firms have little "managerial slack [and an] extreme shortage of management time" (Gibb, 1984, p8). The opportunity cost of networking activity is high and the extensive networking activity of our proprietors reported above demonstrates that it is a crucial business activity for them.

Networks in Northern Ireland are less extensive than in other countries but those associations which do exist are maintained and utilised extensively. This is demonstrated further by the fact that networks in Northern Ireland are of slightly higher density than elsewhere: there are many inter-connections between individuals in the entrepreneur's personal contact network and this facilitates a rapid flow of information throughout the network.

Our data on network diversity shows that our respondents have quite heterogeneous networks and that most contacts are with business associates, friends, relations, accountants, lawyers and a few personnel in small business support agencies. However, many

links are with friends and these connections do not promote divergent points of view and may lead to a blandness in information which inhibits innovation.

Networks in Northern Ireland are relatively small and activities aimed at increasing their size would seem to be appropriate.

Networking takes time and requires expertise and it seems sensible therefore to discuss how one might develop networking skills. We have stated already that networks are abstract concepts but this should not prevent us from trying to enhance skills in this area. Mintzberg (1989) considers that, for too long, management education and training has focused on analytical skills to the exclusion of intuitive ability. He recommends that business schools should help managers develop skills at "collecting information, at conducting negotiations, at making decisions under conditions of ambiguity, and so on". He argues that these skills should not be exercised by developing systematic technique but by cultivating "the softer processes of intuition as well". How might business proprietors be encouraged to develop the intuitive skills of networking? Peterson and Ronstadt (1986) offer some pertinent advice to aspiring network builders. They argue that entrepreneurs should assess their strengths and weaknesses in those localities where appropriate helping persons and organisations exist already, display diplomacy, discretion and reciprocity in dealing with associates and develop skills in handling conflict, evaluate the accuracy of information by utilising more than one source, identify the gatekeepers in their personal contact network and keep the latter

fully informed about plans and intentions, use networks regularly to discover how well they work, add persons to and delete others from the network as situations change and keep a systematic record on paper of contacts together with their secondary associates.

By focusing attention on the issues raised by Peterson and Rondstat it should be possible to build knowledge and skill in this important area. It may be possible to encourage experienced networkers to discuss their methods of information gathering and share information which would provide the basis for training sessions geared towards the gathering of "soft" information. Simulation exercises could well prove invaluable in building knowledge and skills in this area.

If those persons who are responsible for encouraging entrepreneurship turn some of their attention to the development of these important skills it should be possible to develop this most important resource for owner/managers and facilitate the creation of the enterprise culture that so many small business protagonists support.

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Table 1 - The percentage of the sample of who joined various clubs during childhood and adulthood, the mean number of clubs joined and the mean number of positions of responsibility accepted

<u>During childhood</u>	% of sample	Mean number joined	Mean posts of responsibility
School clubs	65%	2.4	1.7
Non school clubs	51%	1.9	1.5
<u>During adulthood</u>			
Social	53%	1.8	1.3
Professional	40%	1.7	1.3
Voluntary	27%	1.5	1.3

Table 2 - The proportion of secondary networks which are perceived as being "very big" by focal entrepreneurs in N. Ireland and Sweden

	Personal Network Contact				
	1	2	3	4	5
N. Ireland	31	21	21	15	15
Sweden*	50	33	33	27	28

\*Source: Johannisson and Johnsson, 1988, p25

Table 3 - Time devoted to the development and maintenance of personal contact networks

	N. Ireland		USA	Italy
	Customers	Others		
New contacts	8.3	4.7	5.6	11.5
Existing contacts	10.4	6.0	5.8	10.7

Table 4 - Percentages of Samples Devoting >5 hours per week to maintaining and developing networks and the proportion of contacts not initiated by the focal entrepreneur

	>5 hours/week		50%+ initiated by others	
	N. Ireland	Sweden	N. Ireland	Sweden
New contacts	26	43	26	51
Existing contacts	36	34	25	46

Table 5 - The gender and age of the personal contact networks of respondents

Contact	Percentage		Mean Age
	Male	Female	
1	85	15	43
2	81	19	42
3	81	19	42
4	83	17	42
5	83	17	41

Table 6 - Relationships between the owner-manager and personal contact network (percentages)

Relationship	Contact					Total
	1	2	3	4	5	
Business	49	59	52	57	55	54
Family	20	9	14	12	11	13
Friend	31	32	34	31	34	33

Table 7 - Occupation of personal contact network (percentages)

Occupation	Contact					Total
	1	2	3	4	5	
Owner-Manager	3	3	3	4	6	4
Employed (1)	62	64	71	71	71	67
Unemployed (2)	2	3	2	1	3	2
Academic	3	1	2	2	1	2
Professional (3)	28	28	19	20	18	23
S.F. Agency	0	1	2	1	1	1

(1) in business

(2) or retired

(3) professions which advise or assist small firms - bankers, accountants, lawyers

Table 8 - Connection in which owner-manager first met contact (percentages)

Connection	Contact					Total
	1	2	3	4	5	
Business	63	66	61	69	71	66
Education	10	8	8	8	3	8
Family	8	7	9	10	6	8
Social/friend	19	18	21	14	20	18
S.F. Agency	0	1	1	0	0	0

