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**SWP 23/90 THE RELATIONSHIP BETWEEN INCUBATOR
EXPERIENCE AND ENTREPRENEURIAL NETWORKS
IN NORTHERN IRELAND - SOME INITIAL FINDINGS**

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THE RELATIONSHIP BETWEEN INCUBATOR EXPERIENCE AND
ENTREPRENEURIAL NETWORKS IN NORTHERN IRELAND: SOME INITIAL
FINDINGS

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ABSTRACT

This paper reports some of the initial findings of a study of the networks of 274 owner-managers in Northern Ireland* and focusses upon the effect of the incubator organisation from two perspectives - that of the previous employment status of the owner-manager, and that of the product/market relationship between the two firms.

INTRODUCTION

The personal networks accessible to the entrepreneur are crucial to the success of his business. They provide the base from which he gathers many of his resources, and the group from which his core of mentors and advisors are drawn. Further, the characteristics of his networks are likely to be influenced heavily by his environment, and by the propensity of those around him to be involved in a variety of social and commercial activities. Indeed, one of the ways of describing culture in a local community, and of assessing its propensity to spawn new ventures is to describe the predominant networks¹

Networks come in a vast range of sizes and types. They can be primarily social, based upon for example, school, the church, the street, family, clubs or societies; or professional, based upon, for example, a trade association, a professional society, or an employing organisation. The latter, the "incubator organisation", can be particularly important for the entrepreneur in the early stages of developing his business since it provides the most relevant starting point for a network of potential customers and suppliers, as well as a window into a comprehensive range of sources of advice and assistance. Moreover, it is the most recent source of technical and managerial skills and knowledge.²

* The research was sponsored by the Northern Ireland Small Business Institute and the Northern Ireland Department of Economic Development

¹ Manning K, Birley S, and Norburn D, 1990 "Developing an New Ventures Strategy Forthcoming in Entrepreneurship in Theory and Practice

² Cooper A C 1981 "Strategic Management: New Ventures and Small Business" Long Range Planning Vol 14, No 5 39-45

The aim of this paper is to report the initial findings of an analysis of the relationship between the owner-managers incubator organisation and the types of networks he uses along two dimensions - the product/market relationship of the two organisations, and the previous employment status of the owner-manager.

THIS STUDY

This paper draws upon a wider study of the networks of owner-mangers in Northern Ireland which, in turn, is part of a set of collaborative, international studies. It is based upon a questionnaire developed by Aldrich et al. in the United States, and modified for local use. Similar studies using the same base questionnaire have been conducted by Johannisson and Nilsson³ in Sweden, and by Aldrich et al.⁴ in Italy. Further studies are being discussed in Norway, Spain and India.

Data collected

Aldrich, Rosen and Wodward⁵ defined three important dimensions of any social network upon which they based their questionnaire - the amount, diversity, and accessibility of resources. In order to relate these characteristics to the individual owner-managers inclination to use his networks, the data collected in this study has been analysed following a similar structure to Aldrich et al.⁶ -

1. The **propensity** of the owner-managers to be involved in networking activities. This is reflected in their willingness to be involved in clubs and societies, both social and professional.
2. **Networking activity** reflected in both the size of their active networks, and the amount of time which the owner-managers spend developing and consolidating them.
3. The **diversity of the personal contact network** - those five people with whom they discuss their business most.
4. **Network density** measured by the inter-relationships in the personal contact network.

³ Johannisson B and Nilsson A 1989 "Community Entrepreneurs: Networking for Local Development" Entrepreneurship and Local Development 1 3-19

⁴ Aldrich H, Reese P R, Dubini P, Rosen B, and Woodward W 1989 "Women on the Verge of a Breakthrough: Networking Between Entrepreneurs in the Unites States and Italy" Paper presented to the Babson Entrepreneurship Research Conference, St. Louis, USA

⁵ ibid

⁶ ibid

The Sample

In the absence of an adequate sampling framework, business support agencies in Northern Ireland were asked to supply lists of names of firms. Whilst the majority of firms identified were surveyed some selectivity was applied to the final list in order to ensure a reasonable geographic spread, and a reasonable sample of women entrepreneurs.

The questionnaire was sent to 1150 owner-managers, and 274 useable replies were received, of which 25% were from women. The firms are basically small firms with a mean of 10 employees and a median of 3. Clearly, therefore, the respondents are owner-managers.

Table 1 below shows the current location of the firms, grouped by the official Travel-To-Work Area [TTWA], and compared with both the total population of employable age, and with the local unemployment rates. The TTWA level of analysis is used throughout the study based upon the assumption that people are likely to start their business within reasonable proximity to their home.

Table 1

DISTRIBUTION OF SAMPLE COMPARED WITH EMPLOYABLE AND UNEMPLOYED

<u>TTWA</u>	<u>Sample Distribution</u>	<u>Employable Rate</u>	<u>Unemployment Percentage</u>
Ballymena	4.4	4.0	2.7
Belfast	63.9	56.5	49.3
Coleraine	2.2	5.2	5.8
Craigavon	5.5	9.8	8.9
Cookstown	0.4	1.3	2.1
Dungannon	0.4	2.4	3.3
Eniskillen	4.4	2.9	3.4
Londonderry	5.8	7.4	10.3
Magherafelt	2.2	1.7	2.3
Newry	5.8	4.2	6.1
Omagh	1.1	2.6	2.8
Strabane	0.0	1.8	3.0

The data shows some over-representation in the Belfast TTWA and under-representation in, for example, Craigavon. However, the differences are not significant.

THE RESULTS

Overall, the owner-managers in the sample showed a propensity to be actively involved in networks, although networking activity appeared to be confined primarily to the local level. The mean size of the networks was smaller than those in the American sample, but similar to the Italian sample. Members of the personal contact

network were mainly middle-aged men working in medium to large organisations, and the density was similar to that found elsewhere.⁷

Commercial Relationship to Incubator Organisation

50% of the entrepreneurs surveyed, [54% of the valid responses] had started businesses which they perceived to have no commercial relationship, whether by market or by skill base, to their previous employment [see Table 2]

TABLE 2
RELATIONSHIP BETWEEN CURRENT FIRM AND INCUBATOR ORGANISATION

	<u>Number</u>	<u>Percentage</u>
Actual Customer	20	7.3
Potential Customer	9	3.3
Actual Supplier	8	2.9
Potential Supplier	5	1.8
Competitor	32	11.7
Related Skills	43	15.7
No Relationship	137	50.0
No Response	20	7.3
	274	100.0

31% shared customers in common with their previous employer, and 29% used suppliers who were suppliers of their previous employer.

For the purposes of this analysis, the data was divided into four main groups:

- * 42 Market related through customers or suppliers
- * 32 Competitor
- * 43 Related skills
- * 137 No relationship

As expected, those who had been employed in private business prior to starting their own firm were more likely to have started a business which had some market relationship to the incubator organisation; those previously employed in Government were likely to have started a business bearing no relationship to their incubator organisation. Interestingly, however, for those who had been self-employed previously, there was also no identifiable relationship - they were just as likely to start a new business in a similar field as not!

Consistent with these results, those who had set up a business in a market related field had come from jobs in which they had had the opportunity to build up contacts outside their place of work, and as a result their businesses had significantly

⁷ Birley S, Cromie S, and Myers A 1990 "Entrepreneurial Networks in Northern Ireland" Northern Ireland Small Business Institute Belfast

more customers who were customers of their previous employer. Remarkably, however, no other relationships emerged. Those who were, in theory, running the smaller risks, the group who had set up businesses close to their incubator organisation, did not run the larger or more successful firms.

Despite the apparent differences in the start-up base of the businesses, there were only two significant, and apparently contradictory, differences in their networking activities. Those with market- or competitor-related firms spent more time developing new contacts than their colleagues [see Table 3 below], and used family and friends in their personal contact network; those with no relationship to their incubator organisation spent less time developing contacts, and used business people in their personal contact network.

TABLE 3
HOURS PER WEEK SPENT DEVELOPING NEW CONTACTS

	<u>Mean Number of Hours</u>
Market Related	5.2
Competitor	5.2
Related Skills	3.6
No relationship	4.8

Beyond this, there were no significant differences in the propensity to network, network size, the structure of the personal contact network, or in network density although the patterns which emerged suggest some areas for further study [see Table 4].

TABLE 4
CHARACTERISTICS OF PERSONAL CONTACT NETWORK

	<u>Know Others</u> <u>in Firm</u> (%)	<u>Time Known</u> (years)	<u>Strangers</u> (%)
Market Related	28	7.5	43
Competitor	36	8.0	50
Related Skills	18	6.0	33
No Relationship	24	5.3	50

So, for example, there is a higher level of cross-contact within the firm for those which have evolved from market relationships, and in these firms there is some suggestion that the personal contact base is more established. By contrast, those starting firms with no relationship to their previous employment are likely to use a personal contact base in which the relationship is relatively new. Interestingly, the density of the networks, as reflected in the percentage of strangers in the personal contact network, is greatest at two extremes - where commercial secrecy is most relevant [competitors], and where members of the incubator are unlikely to have relevant experience [no relationship]



Previous Employment Status

Despite the large number of Government sponsored initiatives which have been aimed at encouraging the unemployed to start their own business in Northern Ireland, and despite the fact that small firms assistance agencies were the main source of the sample, the vast majority of respondents [87% of valid responses] were employed, as distinct from unemployed, immediately prior to starting their current business [See Table 5]. Within this, the smaller private businesses were the most usual incubator for the owner-manager previously employed in the private sector.

TABLE 5

EMPLOYMENT STATUS PRIOR TO STARTING THE FIRM

<u>Employment Status</u>	<u>Number</u>	<u>Percentage</u>
Privately Employed - FT	133	48.5
Privately Employed - PT	9	3.3
Government Employed - FT	35	12.8
Government Employed - PT	2	0.7
Self-Employed	30	10.9
Student	15	5.5
Unemployed	36	13.1
Other	11	4.0
No Response	3	1.1
	<hr/>	<hr/>
	274	99.9
	<hr/>	<hr/>

For the purposes of this paper, the data was further reduced and analysed using the four key incubator groups of:

- * 142 employed privately
- * 37 employed by Government
- * 30 previously self-employed
- * 62 without any immediate previous employment

As was expected, those in the sample who been previously employed in the private sector were running businesses which were different in profile than the rest of the sample. They were more likely to run firms which had limited liability status, to have owned a firm previously, to have worked for more firms, employed more people both full-time and part-time, and were less likely to employ family members. Those who were previously employed by Government, or had no previous employment were more likely to run sole proprietorships or partnerships, which employed few people, but more family members. There are two exception to this last result - those previously employed in Government were the least likely to have owned other firms or employ members of their family! See Table 6.

TABLE 6

EMPLOYMENT STATUS BY BACKGROUND AND BY CURRENT FIRM SIZE

<u>Employment Status</u>	<u>Owned Another Firm (%)</u>	<u>Previous Firms Worked For</u>		<u>Employees in Current Firm</u>
		<u>Mean</u>	<u>Median</u>	(Mean)
Private	50	3.6	3	6.1
Government	4	3.1	2	4.6
Self-employed	32	3.3	3	6.7
No employment	14	2.8	2	1.9

The men in the sample were more likely to have been employed in private industry, and females to have either been employed in Government or to have been without previous employment.

The results on networking activity in this section are contrary to expectations. Preliminary analysis suggests that the previously self-employed spent more time on journeys to develop contacts, and the previously privately employed had more strangers in their personal contact network. However, the differences are marginal [See Table 7]. Overall, no significant differences emerged with regard to the propensity to network, network activity, or network density.

TABLE 7

NETWORKING BY PREVIOUS EMPLOYMENT STATUS

<u>Employment Status</u>	<u>Journey Times</u> (Hours per month)	<u>Strangers</u> (Percentage)
Private	13.7	52
Government	13.6	47
Self-employed	14.3	46
No employment	13.3	46

CONCLUSION

Northern Ireland is small region with a population of some 1.6m, but with particular problems. Not only does it suffer the difficulties of all peripheral regions but also the long history of "the troubles" has left it with an economy based in large part on traditional, declining industries, which is by no means self-sustaining. Moreover, the employment structure is unusual with high levels of unemployment, and with 40% of those employed working in the public sector. As a result, one of the major economic objectives of Government is to promote new firms, and to develop new, indigenous industries.

The aim of the research from which this paper emanates, which was jointly sponsored by the Department of Economic Development, and the Northern Ireland Small Business Institute was to study the characteristics of the networks and the



networking activities of owner-manager in Northern Ireland. It was based upon the premise that networks are a fundamental asset in his portfolio. Indeed, it is for this reason, that the advice and assistance provided for the new and small firm is locally-based.

This paper analysed the relationship between the networks which the owner-manager used and the characteristics of his incubator organisation along two dimensions - the product/market relationship, and the type of organisation. The results are inconclusive, although some interesting patterns have emerged.

The primary source of the firms for the study were the local network assistance agencies. Since a major part of their historic strategy has been to encourage the unemployed to become self-employed and to start their own business, it was expected that the sample would be biased in this direction. This was not the case. Indeed, the percentage of unemployed was smaller than that in the population. Thus, the fact that such a high percentage of the group [50%] started firms which were unrelated to previous employment cannot be explained by this factor. It is more likely to be related to the industrial structure of the economy, and to the policies adopted by the assistance agencies. This latter point is important.

The Local Enterprise Development Unit [LEDU], the primary Government agency responsible for managing the network of advice and assistance, has for some years operated an "admissability" criterion whereby those wishing to start businesses in those markets which are deemed by LEDU to be fully supplied will only receive assistance if they can show that they will export. Yet these results suggest that it is those owner-managers who set up businesses related to their previous employment who are more active networkers, and who are likely to have a more relevant network base. Moreover, when the data is analysed by previous employment type, although there is no significant difference in the networking activities, those emanating from Government and from no previous employment have less experience in running their own firm, have worked in fewer organisations, and employ fewer people. Clearly, there is a need for further research in this field, but these researchers are not surprised that the results suggest that business continues to be the most important source business.