



An entrepreneurial network evolving: Patterns of change

International Small Business Journal

28(4) 315–337

© The Author(s) 2010

Reprints and permission: sagepub.

co.uk/journalsPermission.nav

DOI: 10.1177/0266242610363525

isb.sagepub.com



Sarah Jack

Lancaster University Management School, UK

Susan Moulton and Alistair R Anderson

The Robert Gordon University, UK

Sarah Dodd

Alba Graduate Business School in Athens, Greece

Abstract

It is now recognized that to broaden our understanding about networks more qualitative and longitudinal work is required that examines transformation and the change processes of networks; how they emerge and develop over time. The case study reported here deals with these issues. It considers the development of a network for new entrepreneurs first established by a local enterprise support agency in North East Scotland. This forum provided a near 'natural experiment' to chart network emergence, change and evolution. Employing participant observation, interviews and surveys, data were collected over a six-year period. This allowed the network to be mapped, and provided information about structural characteristics and in-depth detail about network dynamics and change processes over time. Findings show how network structure shifts from calculative to affective ties and demonstrate the importance of social ties for the operation of a network.

Keywords

change, longitudinal case study, networking, network change and evolution, networks

Introduction

Developing greater understanding about if, how and why networks emerge, evolve and support growth has been recognized in the literature as an area requiring further research (Larson and Starr, 1993; Uzzi, 1997; Hite and Hesterly, 2001). This article presents data and develops theory from an

Corresponding author:

Sarah Jack, Institute for Entrepreneurship and Enterprise Development, Lancaster University Management School, Lancaster, LA1 4YX, UK

Email: s.l.jack@lancaster.ac.uk

unusual case, the emergence and development of a new network, where the unit of analysis is not the individual or the cluster, but the emergent network itself (Hite and Hesterly, 2001; Hite, 2003, 2005). Longitudinal observation, examination and analysis of network configuration, reconfiguration and change in an entrepreneurial network over a six-year period were undertaken about what appears to be an almost natural experiment in networking. Examining rich data about transformation enabled the purpose, content and objectives of entrepreneurial networking to be analysed. From this analysis we propose that networking is fundamentally based on a social enactment of what it means to be enterprising (Hill et al., 1997; De Koning, 1999; Singh et al., 1999). Furthermore, networks are not just about resource acquisition; but rather are more about softer, socialized issues, such as social learning and confidence building through interdependence and the sharing of experience.

The contribution of this article lies in three distinct areas. First, the content of the study, in that the longitudinal case of network change over time demonstrates the evolution and developments from a manufactured grouping of individuals to an interactive organic network. This helps extend recent work which considers evolutionary perspectives on networks and interorganizational cooperation (Hite, 2005; Neergaard and Ulhoi, 2006; Jack et al., 2008), particularly the role of government agencies. Second, the lens employed to explore the unit of analysis is different from most previous work. Rather than focusing on the entrepreneur, it considers changes in the actual network and uses this as a mechanism to help enhance understanding about networking. A case study approach combining qualitative and quantitative techniques, but with the emphasis on qualitative interpretation, was used. This allowed data about the network and the interactions of the network members to be collected. Analysis of this duality of individual and group used the constant comparative method allowing the dynamics of the relationships and outcomes to be synthesized. Finally, theoretical observations about the nature of networks are presented. Our findings illustrate that through the active formation of network ties, gaps in the entrepreneur's information, asset and social legitimation requirements are bridged. Thus, the network appears to shift and adapt to fit the needs of its participants. Accordingly, this work supports early entrepreneurial social network theory, that networks fluctuate and change over time, but also extends the findings of Mitchell (1969), Aldrich and Zimmer (1986), Birley (1985) and Johannisson (1987, 1988) in that, through action research, it demonstrates that networks are organic structures, responding to the needs of network members.

Networks and networking in the literature

Networking is increasingly recognized to be a critical factor of the entrepreneurial process and has, since the 1990s according to Neergaard et al. (2005), become a major theme in entrepreneurship research (Hansen, 1995; Chell and Baines, 2000; Dodd et al., 2002; Jack et al., 2008). Defined as 'a set of actors and some set of relationships that link them' (Hoang and Antoncic, 2003: 167), it is acknowledged that network research is not unproblematic (Coviello, 2005). One typical problem lies in the unit of analysis; a network can be argued to exist as a *sui generis* entity, something above and different from the members of the network. Networks are constituted from the constellation of dyadic, triadic and multiplex ties between members (Larson, 1992; Johannisson, 1996; Hite, 2005). Hence issues arise about whether we can understand networks best by looking at the ties which form the structure of networks or by exploring the interactions between and among these ties. Looking at ties can tell us much about the structural components of the interaction (Johanson and Mattsson, 1987; Anderson et al., 1994; Gadde et al., 2003), for example, whether the network link is based on reciprocity and hence calculative or instrumental; whether the bonds are affective and more about a loose obligation. Using these areas as the focus of enquiry can tell us much about the process of networking, but conversely, using this micro examination of ties tells us very little about the network itself. In contrast, if we try to understand the network as an organization, we can count linkages, situate connections and

build up a map of the network, but we then know very little about the nature of the process of networking. Such maps of networks are fairly static and difficult to combine with process approaches. It seems then that we have a research dilemma; should we study *networking* or *networks*?

This is not to say that either research perspective cannot produce interesting results. The networks as organizations literature has made significant advances in our understanding of whether these networks are some sort of intermediate form, located somewhere between markets and hierarchies, or are an entirely new form of organization (Arias, 1995). Similarly work on social bonds of trust and commitment between ties (Etzioni, 1988; Anderson et al., 2007) has shed considerable light on network interaction. Conceptually these different approaches not only produce different understandings, but have very different starting points with respect to the selection of dependent or independent variables. For example, if studying the network, social capital (social capital is often seen as a critical part of network research) can become the explanatory variable (Borgatti and Foster, 2003), however, if studying alliances, ties become the explanatory variable. Moreover, Fombrun (1982) proposed that we can distinguish two kinds of network, attribute networks, where individuals share a commonality (similarity of attributes, gender and the like); or transactional networks, where the focus is on the exchanges between individuals. Fombrun notes how, if one begins with transactions, attributes may be seen as explanatory variables. Yet, Anderson and Jack (2002) argued that social capital exists between individuals, is formed on the basis of affinities and that social capital also lubricates the transactions, so these two types of qualities do not serve to distinguish different types of networks. Rather both elements are likely to exist in a network and have been conceptualized as the structural and relational qualities (Granovetter, 1985). Nonetheless as Neergaard et al. (2005) note, extant research has concentrated on the structural and quantifiable aspects.

In essence, networking research can be seen to be problematic if we are concerned about developing a fuller appreciation and understanding of both network structure and process. By concentrating on the study of one aspect, the other aspect is thrown into shadow. Indeed this dichotomy is also manifest in the methodologies employed. In addressing questions about structure, how many contacts, how often and with whom, most often a quantitative approach has been employed. This clearly reflects the need for quantifiable data (Birley, 1985). In contrast, if we are interested in process, such data is less helpful and we may need a more fine-grained qualitative methodology to address subtle questions (Neergaard et al., 2005: 349). However, in practice, many studies of entrepreneurial networking simply avoid the problem of unit of analysis. Nevertheless, Shaw (2006) defended the small firm as the choice of unit of analysis to explore network structure, processes and outcomes.

Borgatti and Foster (2003) argue that the outcome of networking represents the bulk of network research. This, they explain, is a consequence of the need to establish the field as legitimate. Only after it could be shown that networking had important consequences, endorsing networking as a legitimate topic, could work emerge which explored network change over time. This is certainly true of the entrepreneurial literature where networks are seen as a way to extend the potential resource base of the entrepreneur (Johannisson and Peterson, 1984; Birley, 1985; Aldrich and Zimmer, 1986; Carsrud and Johnson, 1989; Johannisson et al., 1994; Shaw, 2006). Thus networks act as a conduit for information (Steier and Greenwood, 1995), improve the possibilities of success (Johannisson and Peterson, 1984; Johannisson, 1986, 1987; Johannisson and Nilsson, 1989; Foss, 1994; Ostgaard and Birley, 1994; Hansen, 1995; Brüderl and Preisendörfer, 1998; Jack and Anderson, 2002) and, indeed, venture survival (Arocena, 1984; Brüderl and Szarka, 1990; Preisendörfer, 1998; Huggins, 2000). However, as Johannisson and Mønsted (1997) point out, this particular strand in the literature emphasizes the resource dependence perspective of networking. While this may address the 'why' questions about new ventures, it actually tells us little beyond the 'how' questions of entrepreneurial networking. In spite of these studies, recognized gaps in the literature stream remain, most notably in terms of a heightened understanding of the content of network interactions (O'Donnell et al.,

2001; Barnir and Smith, 2002; Lechner and Dowling, 2003), the processes within network relations (O'Donnell et al., 2001) and the dynamic nature of networks over time (O'Donnell et al., 2001; Lechner and Dowling, 2003; Shaw, 2006). One recent response to this gap in the literature has been a new focus, network change. Network change offers the possibility of charting both structure and process. Larson and Starr (1993) were among the first to argue that entrepreneurial networks change over time. Their evolutionary view saw the shift from fairly simple dyadic relationships into multi dimensional relationships, thus illustrating both process and content.

Network change

The literature on network change (see for example Larson and Starr, 1993; Schutjens and Stam, 2003; Greve and Salaff, 2003; Lechner and Dowling, 2003; Hite, 2005) may well demonstrate that network studies are a legitimate area of study, but it must be remembered that they are also a logical development of the resource-based view. Underpinning the temporal dynamics of network change is an assumption about the instrumentality of network resources; network change is seen as a response to changing entrepreneurial requirements. Johannisson (1988), for example, argues that establishing and developing a business requires different contacts and different resources over time. Granovetter (1985) also noted that social network ties are activated according to need, and are hence not fixed. A consequence of this view is that networks, as entities, can perhaps best be seen as a bundle of dynamic relationships, changing and process driven (Chell and Baines, 2000; Anderson and Jack, 2002). Moreover, what is true at the level of the individual entrepreneur may well be equally true at the level of a network, which comprises many individuals: dynamism, process and change remain key factors. So network change presents an interesting matrix for trying to understand the nature of networks. If the changes are, as the literature seems to suggest, entirely driven by resource acquisition, we may be able to use the matrix of change to develop a fuller understanding of the networks themselves. Typically the network change literature (Jack et al., 2008) uses and captures transitions, formations and reformations in response to environment and business development needs. However, this literature is based on an agglomeration of dyadic relationships; the individual's network changes. Our focus of enquiry is the network itself, thus providing us with a very different perspective, a theoretical platform from which to observe the emergence, development and change within the network as an entity. Moreover, by using the network as the unit of analysis, a medium level rather than purely micro or macro level of analysis is possible.

It is clear that whilst networks play important roles and that they change over time, we are less well informed about the dynamics, or indeed the reasons for change in networking over time. This issue presents our background research problem; in what ways, and for what reasons, do networks change? Dealing with this problem allows very clear research questions to be considered which go some way to help resolve some of the issues discussed earlier. If the unit of analysis is the network itself, we can see at a macro level how network structures change. Accordingly, the research questions address the macro issues. What is the nature of networks? What is the nature of the linkages which form the structure? What makes them work? But since networks are a constellation of ties, the micro level of interactions within the network can also be explored. Thus some of the micro issues can be considered: what is the nature of the exchanges within networks and how do they work? As explained earlier, the study presented here is of an emerging and developing network. Borgatti (2002) claims that what was once described as a group, a club or a trade association is now described as a network. But conversely, Fombrun, albeit writing in 1982, claimed that any *set* of individuals are tied by multiplex bonds. In fact, this study is intended to chart the developments from a group, characterized by very loose ties, into a network which is tied together by increasingly stronger multiplex bonds.

Methodology

The research problem identified was to understand network change by examining how and why the network changed over time. Zhang and Lin (2005) comment that although many studies have recognized network dynamic change as an important topic, the literature on change is not extensive. Coviello (2005) suggests that since networks are relationship based and consequently dynamic, network research is also time bound. For her, this suggests that research methodologies should be sensitive to how networks change over time. Moreover, O'Donnell et al. (2001) see it as imperative that networks should be studied over time. Similarly Hoang and Antonic (2003) argue that entrepreneurial studies should be longitudinal and show how network content, governance and structure emerge over time. Birley (1985) argued that the process view was necessary because firm start-up is not a discrete event, rather it is a process which may extend over a considerable time. There are of course some longitudinal studies. For example, Davidsson and Honig (2003) examined human and social capital over 18 months and found bridging and bonding social capital (strong and weak ties) a predictor for nascent entrepreneurs; Schutjens and Stam (2003) used longitudinal questionnaires to study aspects associated with evolution and argued the case for networks to be viewed in a spatial and temporal context. But, as Coviello (2005: 41) notes, the focus of many studies is on counting activities or types of network contacts over time; 'as such, the processes underlying network development are not captured'. Consequently, this study addresses a gap in the literature (Shaw, 2006).

This study is part of our ongoing interest in networks. Our previous work had concentrated on the social processes within networks, so when we had the opportunity to study this emergent organization, we felt that we could broaden the scope of our understanding. We became aware of the existence of the new 'network' when one of the authors, Susan, joined the group as a student as a way of becoming better acquainted with embryonic entrepreneurship. Her role at that point was participant as observer. Within a few months she was asked to join the committee and eventually took over the role of treasurer. At this point the research group realized it had the opportunity to study the formation and development of a network. Fortunately Susan had kept detailed accounts of her involvement, so that when we decided to make this a formal case study, we had a written record of events as well as her recollections of events. Susan had access to minutes, members' records and correspondence, attendance sheets and key secondary sources detailed below. This review provided qualitative and quantitative data about members' perceptions of the network. Later, when the local enterprise company declared its intention to withdraw financial support, Susan was asked to undertake a formal review of the network to establish whether it was worth continuing. So data were collected both ethnographically, as participant observer, and also in more 'objective' formats from the surveys and interviews. One task of the others in the research team was to help shape how the later data were collected. However, their primary role was in the analysis of the data, discussed in more detail below. The team were able, as a team, to compare and contrast the different data, examine its meaning and challenge individual perceptions. Thus, analysis was more soundly based. If analytical errors have been made, they were both joint and several, but overall are more likely to be objective because of the independent data scrutiny and analysis.

As Halinen and Tornroos (2005) recently noted, research methods and access to data in network studies have gained little attention. The research objective was to try to understand the processes of network formation and development over time. This called for a longitudinal case study approach to allow changes over time to be followed (Easton, 1995). Nonetheless, although the unit of analysis was the 'network', the nature of the network could only be understood by studying network members in context. Networks exist as dynamic relationships (Chell and Baines, 2000), changing and processual. However, because of the difficulty of studying networks most work does seem to

end up taking a 'snapshot' of the network and what is happening within that network but only at a specific point in time. Hence, the changing nature of networks and the processual perspectives are ignored. However, networks only exist as a relational artefact; their objectification only becomes real as a product of relational interaction (Anderson and Jack, 2002). Consequently to understand a network, we need to know about the members and the interaction of members, since the network, although a *sui generis* thing in itself, is also the sum of interaction of the members. As has been noted elsewhere, networks actually create the environment so that 'networking process is the enactment of the environment' (Jack et al., 2008: 125). To this end, data about both the network and the network members was collected. Case studies are multi-perspectival analyses (Yin, 1994). This means that the researcher considers not just the voice and perspective of the actors, but also of the relevant groups of actors and the interaction between them (Halinen and Tornroos, 2005). Eisenhardt (1989) also points out that case studies can capture the dynamics. Thus, as Halinen and Tornroos (2005) argue, it seems obvious that a case strategy is most suitable for the study of business networks.

Within the case approach, researchers need to be clear about techniques. There is broad consensus that when tackling social phenomena such as networks, rich detail is so essential to the research process that qualitative studies are to be preferred (Blackburn et al., 1990; Chell and Haworth, 1992; Johannisson and Mønsted, 1997; Uzzi, 1997; Hill et al., 1999; Zeleny, 2001; Hoang and Antoncic, 2003; Jack et al., 2008). This is especially so when addressing the process, content and dynamics of networks, rather than purely structural matters (O'Donnell et al., 2001; Lechner and Dowling, 2003). A qualitative approach is also indicated by the relative lack of work in the area (Larson, 1992). Additional benefits of qualitative approaches include 'intensive investigation of developmental patterns' (Larson, 1992: 79), and 'sensitivity to the details of self-enforcing and trust-building idiosyncratic exchange processes' (Johannisson, 1996). A similar case has been made for the use of longitudinal studies, to enhance the knowledge gained by cross-sectional analysis, in the study of dynamic entrepreneurial networks (O'Donnell et al., 2001; Greve and Salaff, 2003; Hoang and Antoncic, 2003; Jack et al., 2008). O'Donnell et al. (2001) suggest, following Curran and Blackburn (1994) that the interactional aspect of networking calls for a qualitative approach. Aldrich (2001) argues that we need to look at event-driven processes. O'Donnell et al. (2001) also note that, within process, the content of network interactions is relatively neglected and suggest that an appreciation of these dimensions would increase our understanding of network process.

Nonetheless, case study methodology calls for a variety of data collection techniques. This study is probably methodologically unique, in that it adopts a longitudinal, qualitative approach to the study of content, processes and dynamics in entrepreneurial networks, but with some enrichment provided with the use of quantitative data. In this way we try to manage the epistemological divide between the interpretivist and functionalist paradigms (Burrell and Morgan, 1979), utilizing methodologies espoused by each paradigm (Gioia and Pitre, 1990). Our approach is thus not simply the uncritical methodological 'mix and match' of which much multi-method entrepreneurship research has been justifiably accused (Curran and Blackburn, 2001; Grant and Perren, 2002); we thus feel that a strength of the research is the multidimensional nature of the research methods employed. This is detailed below.

Desk research

Access to the network's materials and archival records documenting the history and development of the forum – members' correspondence, marketing material, committee minutes and attendance records – was acquired. Two particularly important secondary sources were used:

- A members' meeting was held in December 1997 to review the development of the organization to date, the membership's aspirations and the way forward. The facilitator's

Table 1. Respondents

	Gender	Age	Age of Business	Number of Employees (inc. Owner)	Business Activity
R1	Female	56–65	9 months	6 (inc 3 P/T)	Business support services
R2	Male	36–45	2 years	1	Photographic solutions
R3	Female	56–65	3 months	3	Management consultancy
R4	Female	36–45	6 years	1	Training consultancy
R5	Male	46–55	5 years	2	Cost management
R6	Female	56–65	N/A	N/A	Housewife
R7	Female	56–65	4 years	1	Professional forensic services
R8	Female	46–55	4 years	1	Wine educational consultancy
R9	Male	46–55	In process of start-up	1	Health and safety services
R10	Male	46–55	20 months	10	Manufacturing
R11	Female	46–55	14 months	1	Computer training and PC Support
R12	Male	56–65	2 years	1	Motivational coaching
R13	Male	46–55	21 years	2	Architect
R14	Female	46–55	7 years	1	Speciality gifts
R15	Male	26–35	2½ years	1	Corporate leisure activities
R16	Male	46–55	5 years	1	Health and safety consultancy
R17	Female	56–65	2½ years	1	Language training
R18	Male	46–55	2 years	3 + 8 Associates	Management consultancy and training
R19	Male	26–35	2 years	1	Internet consultancy and web design
R20	Female	46–55	8 years	1	Consultancy/training
R21	Female	46–55	13 years	2	Team building and coaching
R22	Female	56–65	Considering start-up	N/A	
R23	Male	16–25	N/A	N/A	Student
R24	Male	46–55	In process of start-up	N/A	Life coach
R25	Male	46–55	In process of start-up	N/A	Mobile car services
R26	Male	46–55	9 months	1	Business and IT consultancy
R27	Female	36–45	3½ years	1	Training consultancy
R28	Female	56–65	4 months	1	Project management
R29	Male	36–45	In process of start-up	N/A	Design/manufacturing
R30	Female	46–55	12 years	1	Health promotion
R31	Female	36–45	7 months	1	HR consultancy

summary was especially informative regarding individual members' perceived aims at that time.

- A survey administered to members in June, 1998, which collected 40 responses relating to background details about membership, types of business activity, business stage, format of meetings, and reason for joining the forum. This survey provides a benchmark against which to measure subsequent developments, and is particularly valuable since it summarizes the opinions of the majority of early-stage entrepreneurs within this specific group.

Participant observation

Previous work has highlighted the relevance of participant observation for network research (Bøllingtoft, 2007). During the period December 1997 to April 2003, the lead author regularly participated in the forum's monthly meetings. Additionally, she was an independent observer at a meeting between members' representatives and the local enterprise agency in April 2003, at which the future direction of the organization was determined.

Interviews

Eleven semi-structured interviews were carried out in 2002/3. Respondents included two employees of the enterprise agency and nine members, including the 'chair' and one past, founder member. The majority of the interviewees were selected from the quantitative survey outlined below. Two interviews (1 and 11) were one-hour, face-to-face interviews with key participants; the others were telephone interviews, typically lasting 30 minutes. Table 1 provides an overview of respondents with details relating to their age, gender, age of business, activity and number of employees.

Quantitative enrichment

In December 2002, 39 subscribed members of the club were surveyed and the questionnaire distributed at a monthly meeting with 50 attendees. This resulted in a total of 31 completed questionnaires (29 from members, and two from guests). Respondents were asked about benefits, reasons for joining (or considering joining) and how they rated the effectiveness of the network. An important feature of the questionnaire was the open-ended nature of many of the questions. Opinions were invited about expectations and experiences as well as the more formal scales.

Data analysis

An inductive approach to analysing data was employed. Eisenhardt (1989) recommends starting data analysis by first sifting through all the data, discarding whatever is irrelevant and bringing together what seems most important. The second step consists of a search for patterns (Halinen and Tornroos, 2005). In essence, this took the form of looking at the data and asking ourselves, 'What is going on here?' Described more formally, this involved the constant comparative method (Glaser and Strauss, 1967; Alvesson and Sköldbberg, 2000; Silverman, 2000) of an iterative reviewing of the data with emerging categories and concepts. This has become an accepted approach in dealing with entrepreneurial network analysis (Human and Provan, 1996; Hill et al., 1999; Jack, 2010).

Wolcott (1990) argued that the objective with qualitative work is not to accumulate all the data you can, but instead identify and then reveal those essences with enough context to allow the reader to understand those situations individuals are immersed in. The research process used here generated large amounts of data which once collected had to be sorted before it could be analysed. Interviews were taped and transcribed, data from documents, discussions, field notes and observations were collected, written up, merged, synthesized and then organized around the themes which seemed to fit with our interests: networks, networks evolving and network patterns of change. This provided a way of sorting and arranging the rich raw data into useful and explanatory categories.

Data was then examined and explored for detail relating to these themes. This meant comparing and contrasting patterns of activities to determine categories. So, incidents and experiences, observations and responses were continually compared with others within emerging categories. This process helped to improve description, understanding and explanations but it also helped to ensure confidence in our interpretations.

Analysis was not 'full blown' grounded theorizing, with axial and radial coding. Instead, understanding patterns of change was our concern. Using this constant comparative element of a grounded approach has been used in other studies (see, for example, Anderson et al., 2007; Jack et al., 2008) and has provided a way to 'undertake empirical research which is informed by prior theoretical understanding, but which is not so determined or constrained by this understanding that the potential for making novel insights is foregone' (Finch, 2002: 57).

We can describe our analysis as stages of constant comparative analysis. First we searched all data for any patterns or themes. Second, we refined these themes into descriptive categories, so

that an identified theme became a category when we were able to define it descriptively in such a way as to be able to distinguish it clearly. These processes were inductive, but given that they were initially conducted separately by each author, we are confident of the validity and meaningfulness of the categories. Our next stage was to synthesize the descriptive categories into analytical categories. Put differently, how could these categories be combined to help explain processes? Again we first reviewed this material individually, then jointly to try to ensure the reliability of our analysis. In fact this process generated some new insights as ideas and interpretations clashed and fused. Finally we applied our explanatory categories to the case. The process this entailed is illustrated in Figure 1 and in Table 2 phase 1 is used to illustrate in more detail how we moved from descriptive to analytical categories.

Ethical considerations

The main researcher was at the time a student studying entrepreneurship and was invited to become involved with the forum. Forum participants became respondents, but at all times were completely aware of her study and agreed to participate. Moreover, it was made clear to respondents that any resources, data and material would be used for academic purposes. Copies of findings were sent to the committee and presented to members for feedback.

The case: Chronology of the network evolution

Phase 1 – formation

The forum for potential entrepreneurs was established in September 1996 by a local enterprise agency in response to the Business Birth Rate Strategy (BBRS). This highlighted an enterprise deficit and a disparity between those individuals with an interest in entrepreneurship and those actually going on to launch a business (Scottish Enterprise, 1993). The forum's aim was to target pre-start, nascent entrepreneurs and help them develop business ideas and build the momentum for business start-up. The early driver seemed to be to meet the targets of the BBRS and to 'either keep them [clients] in the entrepreneurial loop or encourage them in the development of their business' (Interview 11). The emphasis was on idea generation rather than networking; 'the main remit of our organization is to promote the formation of business ideas' (club flyer, 1997).

From the beginning, the organization and staging of monthly meetings was managed by the members themselves. The meeting format was to table business ideas, then self-select into syndicates to brainstorm and evaluate the opportunities, which members could then develop in their own time. The aim was to be 'informal', 'approachable' and somewhere to 'kick around' business ideas (club flyer, 1997).

Phase 2 – development and reconfiguration

By December 1997, there was a growing recognition that improvements could be made. Members highlighted the need to monitor the status of syndicates and the need to 'harvest' more 'members, third parties, business angels and enterprise companies' (facilitator's feedback, December 1997). Other recommendations included improving the meeting format to facilitate 'networking', such as name badges, a members' notice board and a membership directory (facilitator's feedback, December 1997). Following a high turnover in membership and poor attendance levels (less than 20) in the first few months of 1998, an internal survey of members and guests was completed in June. Only four respondents appeared to have been members since inception, and significantly, the characteristics of

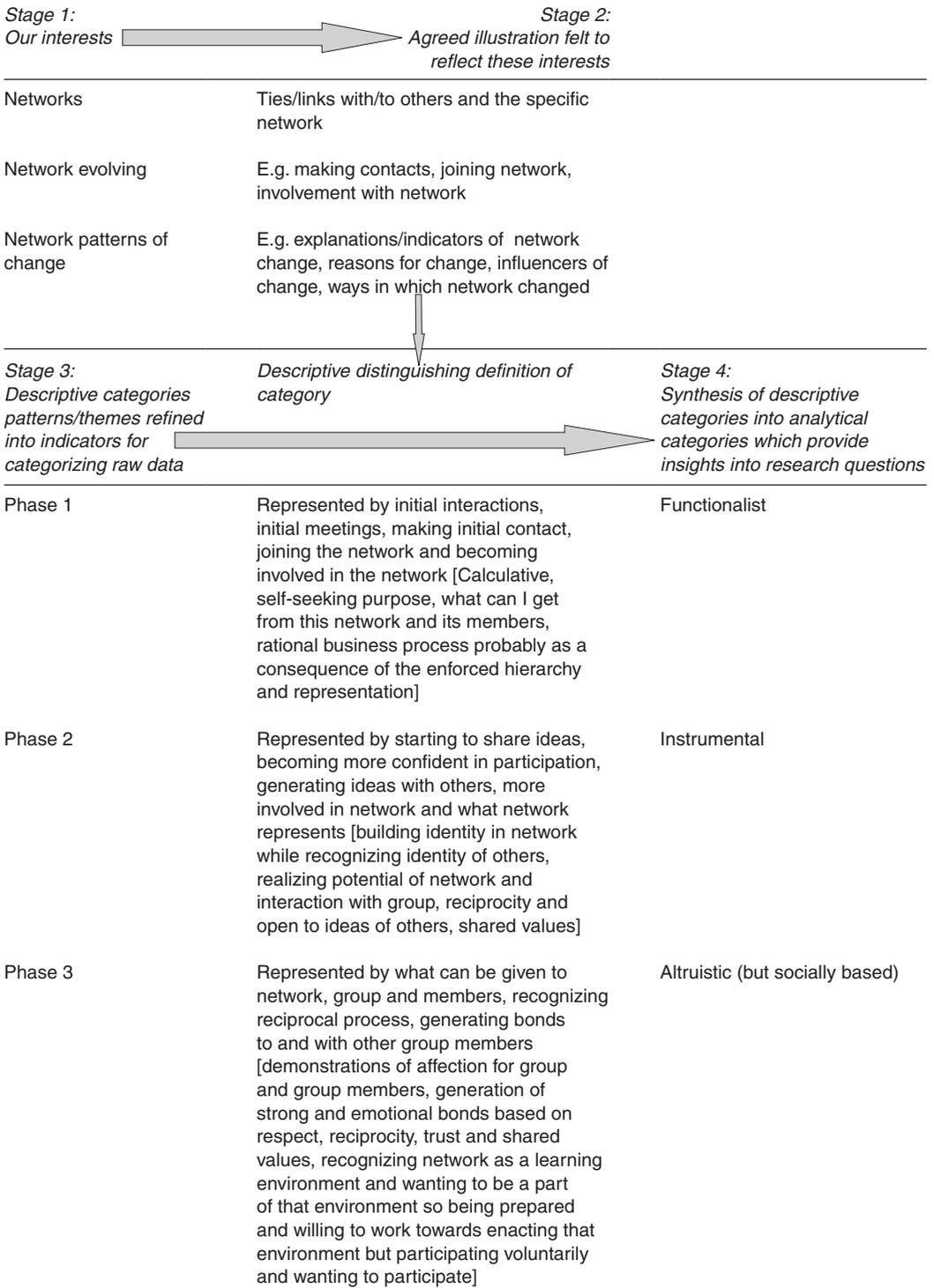


Figure 1. Stages of Analysis

Table 2. Moving from Descriptive to Analytical Categories: The Example of Phase I

Stage 3 Descriptive distinguishing definition of category	Data sources utilized	Examples from these data sources which 'identify the phenomena'	Summary of findings from the data – what's the story?	Stage 4: Synthesis of descriptive categories into analytical categories
Phase I (1996–1998) Represented by initial interactions, initial meetings, making initial contact, joining the network and becoming involved in the network	Early archival material: flyers, statements of purpose, etc. Facilitator's summary of December 1997 meeting Members' survey June 1998 Participant observation records for 1997–1998 Interview transcript material (2002) which reflected back on phase I	Formality evidenced by rigid organizational structure and process described in archival material Discontent with network shown by 37% replying that the network had not helped them (members' survey). Meeting records for early 1998 show high turnover in membership and poor attendance levels (less than 20) Specific and pre-start up focus of network: 'the main remit of our organisation is to promote the formation of business ideas' (Flyer, 1997) Outcome-driven expectations of the founding agency; 'connect needs to resources'; 'Business Birth Rate (agency dialogue)	Calculative, self- seeking purpose 'What can I get from this network and its members?' A rational business process is in place and perceived rather coldly. Perhaps this is a consequence of the enforced hierarchy and representation?	Functionalist
		Members expect concrete outcomes, and are disappointed by the network's failure to deliver in this area: 'participants seem to offer only marginal interest' (1998 Survey)		
		Awareness of the attractiveness of a more social, supportive side to the network (Facilitator's feedback from 1997 members' meeting)		

the membership appeared to have changed. Fully 55 per cent of the respondents were business owners and 18 per cent of the other members already had a business idea. There were numerous suggestions to move away from syndicates and discussion groups and concentrate 'more on the practicalities and problems of getting a business up and running' (survey results, June 1998). There was also a general demand for greater networking opportunities and a wider membership base.

The forum was given a complete makeover, including a new logo and a more professional image. The syndicate structure was initially retained, but a more balanced programme was developed, focused on problems and issues relating to growing businesses, with input from entrepreneurs, business professionals and the support organizations. The perceived improvement was immediate – 'prior to the last two meetings it was going down the tube' (minutes, March 1999) and attendance at meetings gradually rose to between 40 and 60, with one meeting (a motivational speaker) attracting over 100 attendees. Efforts were made to broaden the membership base and our analysis of the marketing literature reveals a changing shift in emphasis. The new flyers highlighted the specific benefits of membership, including 'help', 'support', 'advice', 'contacts', 'ideas' and being 'part of a progressive group of people' (club flyer, 1999). The marketing literature emphasized: 'networking' – 'it's not just what you know, but also who you know' (club flyer, 1999) and the forum's role as a 'unique network of entrepreneurs' and 'matchmaking bureau' (chairman's letter, 1999/2000). By June 2000, the new motto was 'Network for Success' (minutes, June 2000).

Phase 3 – survival and rebirth

The role of the enterprise agency had always been quite 'hands-off'. Apart from the champion within the agency, who sat in an ex officio capacity on the committee, support was restricted to providing an individual to handle day-to-day enquiries, undertake mail shots and maintain membership records. Following changes to the organization and strategy of the enterprise agency, it launched a new, different and much larger 'enterprise forum' in April 2002. The new forum was marketed to clients, resulting in membership numbers of the original forum dropping significantly – from an average of 60 to 39 at the survey date. In April 2003, the agency decided to withdraw all further support, including promotion of monthly meetings.

Interestingly, the original forum has survived. The majority of the remaining members decided to 'go it alone' (meeting record, April 2003) and operate without the assistance and support of the agency. Indeed, for some members their 'disillusionment is with the supporting body' (Respondent [R] 20). Currently, the forum is enjoying a rebirth and attendance had considerably increased, from an average of 43 in 2002, to 110 people in January 2004.

Evolution of the network

It is clear from summarizing the major thematic phases over the period of observation that the evolution of the network has been characterized by various stages and crises which resulted in changes to the network's structure, content and process. The forum has developed into a social network, which functions independently from its agency broker. Moreover, the network has developed into its present format in accordance with the underlying network needs and the social context of its members. There is a new ethos to the forum, and the mission now is to 'create a social club where they can really learn' (Interviewee 1).

The initial focus by the enterprise agency was the fledgling, pre-start entrepreneur. This suited the agency's own agenda (to improve the business birth rate) and effectively the agency introduced a programme of formal events to encourage idea generation and motivation. The forum's original

purpose was as an ideas bank, but by the time of the 2002 survey, seeking a business idea was ranked as the least important reason for joining. Rather, it was the opportunity to network, especially with people in a similar position, which was ranked as the most important reason, and it is the forum's ability to fulfil the *social* needs and expectations of its members which was central to the transformation process, and ultimately, to the organization's survival.

In explaining the reasons for change, the involvement of the members themselves was a key factor. The agency's stance was 'the group is for you, and should be run by you' (Interviewee 11). From the beginning, a members' committee was involved in running the forum and fronting meetings. However, the top-heavy management structure (see Table 3 below) provoked criticism in the 1998 survey, and a more fluid, informal structure emerged, with members rotating the chair and taking turns to host meetings. The members themselves made the decision to continue the forum in 2003 and they used their personal contacts and influence to keep the forum alive and growing. The forum appears to be functioning as a community for a small, but critical, nucleus of members which enabled it to survive and exist independently from the enterprise agency. A new ethos has evolved which is embedded in the social context of the membership.

Membership characteristics

To help explain the change in membership we should note the type of member and changes in the membership size and distribution. Although the data available relating to the original members is incomplete, it appears that the early members consisted of both the pre-start 'wannabe' entrepreneurs – 'most are in love with an ideal and hope to shed light on their dreams' (welcome letter, 1997) – as well as early stage business owners – 'some of the members do run their own businesses, but want to continue to meet like-minded people' (welcome letter, 1997). By the time of the 1998 survey, the membership profile was much clearer – 74 per cent of respondents either had a business idea or were business owners already. This profile was confirmed by the 2002 survey, which indicated that 23 of the 31 respondents had their own businesses and a further 5 were in the process of starting up. More detailed analysis of the 2002 data showed that, with one exception, the businesses were all micro-enterprises, with 18 having no employees. Also, the age distribution of respondents indicated that 75 per cent were over 35-years-old. In other words, the forum's appeal has developed for a particular type of entrepreneur – the mature, micro-business owner.

The type of network member is important, as it will naturally influence the shape and content of the network. Johannisson (1996) argues that the need for networking and the structure and degree of networking activity may vary dependent on the stage of life cycle; therefore the requirements of the person who has already started may be very different from the pre-start hopeful. What starts to emerge is a tension in the network centred round the conflict of needs/interests. When the forum tried to target both interest groups, this was perceived as a weakness. 1998 survey responses stated there was a 'lack of focus' and the forum 'needed to get really clear who the intended members are' (members' survey, June 1998). Moreover, evidence from the members' survey (June 1998) demonstrates that these embryonic entrepreneurs were perceived by some members as adding little value to the network:

- 'Participants seem to offer only marginal interest'.
- 'With current attendees it is too introspective'.
- 'Most attendees do not have a specific direction or goal and lack the emotional fortitude to push themselves forward'.

And most damning of all:

- ‘It is group therapy for bored housewives’.

Size and diversity of the network

Poor attendance at meetings and falling membership numbers were used by the agency and committee as measurements of success for the network. Membership numbers were important for the financial viability of the forum; also, some members appeared disappointed with the quality and diversity of the network contacts and wanted a broader membership base, including larger, more established businesses. However, analysis of the questionnaires revealed that attendance numbers was not a critical point. Although 36 per cent of the 2002 survey respondents admitted to rarely attending meetings, this was largely because of business commitments rather than any dissatisfaction with the forum. Although formal membership was never high (at best 60 members) the ‘unofficial’ network appeared to be larger, and attendance sheets indicated high numbers of guests and people attending one event only. For example, in 2002, the average monthly attendance was 43, but 197 different individuals attended events. Of these, 69 per cent only attended one event. For some members, this diversity was an attraction – ‘I’m meeting lots of different people every meeting – that’s the whole purpose’ (R7). However, this low-density, weak-tie network was seen as a weakness by others and one response noted the ‘high churn rate’ and complained that ‘insufficient meetings are held to build relationships with fellow members’ (R5).

For the remaining nucleus of members, however, the forum seems to have emerged as having a strong tie orientation and the network has developed into a high-density network with most of the members knowing each other (Granovetter, 1973). By 2002, approximately one-third of the respondents had been members for over three years and responses indicated that they have become ‘good friends’ (Interviewee 1 and R14) and have developed strong tie relationships. Even at the early stages, there is evidence that strong ties were being formed and new members complained that ‘the established members are too cliquey’. Indeed, the syndicate system itself promoted the development of a strong tie network. In fact, what emerges is that the small size of the organization actually suits some members and is within their comfort zones:

we don’t want it to get too huge – if it got too huge it would lose the familiarity. Obviously, we need about 40 or 50 – that’s quite nice. It’s just attracting a few more people regularly to give a more consistent number of people. (R7).

Perceived benefits of the network

The membership of the network changed over time, but because the members were not homogeneous, they had different expectations and needs. What emerges through the different stages are the multi-faceted, multi-dimensional needs of the network members, which is illustrated in Table 3 below. There is a shift, from needing and wanting more than motivation and business ideas, to improving communication skills, building confidence and creating an emotional support network. The divergent needs can be seen as early as December 1997. Analysis of the vocabulary used by members at the first annual review indicates a growing awareness of the forum as a social network – as somewhere to ‘meet interesting, enthusiastic people’ and ‘kindred spirits’. There was much more focus by members on being connected – ‘sharing’; ‘exchange’; ‘tapping into nuggets’; ‘access to

Table 3. Evolution of the Network

Phase	Enterprise Agency	Dialogue	Members	Structure	Network Status
Formation phase 1: 1996–1998	Formed the forum Focus on idea generation and development of business opportunities	A – ‘generation of new business’; ‘support’; ‘exchange of ideas’; ‘connect needs to resources’; ‘meet like-minded people’; ‘ideas bank’; ‘business birth rate’	Mainly ‘wannabe’ entrepreneurs	Formal hierarchy of Chair, President, Vice President, Secretary, Treasurer and Committee	Loose collection of individuals
Development phase 2: 1998–2002	Facilitation of network Event focus	A – ‘breeding ground for business’; ‘safe laboratory’ New logo, name badges, professional events M – ‘network with more members’; ‘network with the right people’; ‘benefit from the experience of other’; ‘contact with others’; ‘meeting others and learning from them’	New starts and ready to go	Much less formal Treasurer and committee Rotating ‘chair’	More tightly knit Like minded, sharing
Current phase Rebirth	Launched new forum Withdrew all support from original forum	A – ‘network for success’ M – ‘contact with kindred spirits’; ‘peer group support’; ‘the opportunity to learn’; ‘chance to feel at home with others’	In business Mature, solo	Unstructured and informal Only a secretary	Close knit

Note: (A = agency; M = members).

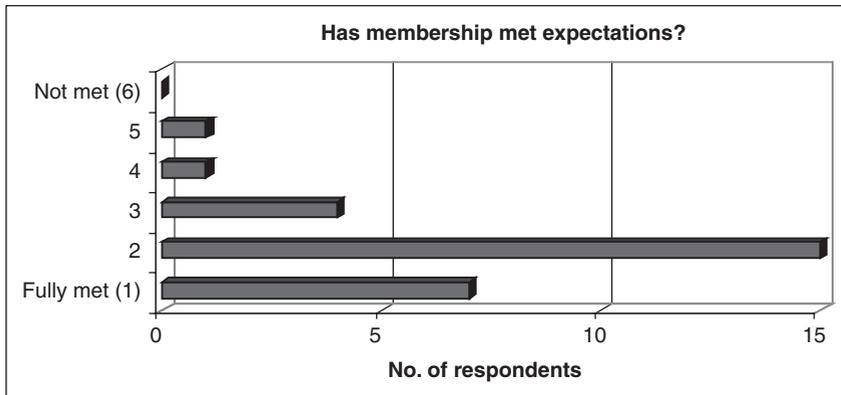


Figure 2. Satisfaction Levels – 2002 Survey

other skills'; 'connect needs to resources'; 'support'. It appears that the members' expectations and needs were beginning to change and influence the development of the network (facilitator's feedback, December 1997).

By the time of the 1998 survey, the tension is clearer. Some members listed benefits such as 'hearing about business ideas'; 'identified a business opportunity'; 'idea generation and interpersonal skills'; and 'business patents and copyright' (members' survey, June 1998). However, only 52 per cent of respondents felt that the forum had helped them with their business in some way, 37 per cent replying that it had not. For some more established members, the forum was perceived as seeming to 'meet the needs of those not already in business more than those who have started up' and there were demands 'to allow people who already have ideas to go away into a corner of the room to network with like-minded people' (members' survey, June 1998). Yet there is also evidence that the forum was changing and starting to meet the members' social needs. Typical benefits were listed as 'mutual support'; 'meeting people with similar interests'; 'speaking to like-minded people'; 'help sustain motivation in an otherwise lonely environment'; 'like-minded co-members'; 'meeting others and learning from them'; and 'meeting similar people has given me confidence and a morale boost' (members' survey, June 1998).

By the time of the final survey, the members' satisfaction levels are high, despite the fall in membership number (see Figure 2).

The detailed responses describing the types of benefits gained reflected a broad range of benefits, including 'confidence' (R8, R24 and R29), 'motivation' (R17), 'personal development' (R13, R17 and R29), 'customers' (R14), 'contacts and suppliers' (R1, R11, R15 and R21) and 'ideas' (R7, R15, R17 and R30). Overall, however, the respondents appeared to indicate more personal benefits than tangible business benefits. It was the social interaction between members which was valued, and the opportunity to network and interact with peers, which was critical. The mature business owner appeared to seek a social network, 'peer group support' (R30), 'like-minded business people' (R5) and 'contact with kindred spirits' (R16). This is evidenced by the interview and survey responses:

- 'I'm looking for people with maturity and intelligence. They are a personal network as opposed to an opportunity to make money out of' (R28).
- 'The main benefits have been social in that as a self-employed, one-man-band it is nice to meet people in the same situation' (Interviewee 1).

Table 4. Analysis of Network Evolution

	Nature of Network	Purpose and Content	Type of Network Tie	Characteristics	Governance
Phase 1	Functionalist	Own interest and about tapping resources	Calculative	Purposeful	Hierarchy
Phase 2	Instrumental	Realization of shared benefits, confidence and identity building	Instrumental and normative	Reciprocity, learning from others	Shared values
Phase 3	Altruistic? But certainly socially based	Learning and enactment	Affective	Emergence of deferred reciprocity, emotional bonds and attraction	Trust? But voluntaristic

- ‘I’d rather exchange notes with fellow entrepreneurs and pool our own expertise’ (R17).
- ‘Time is quite precious but the people I’ve got to know – sometimes I just go for the networking even though the subject is not that exciting’ (R21).

The forum had changed to allow its small business owner members to share learning experiences and to interact in a favourable environment. The entrepreneurial learning process has become embedded in the relationships themselves, which is consistent with the literature on experiential learning. The development of a personalized exchange network with peers has been shown to help entrepreneurs learn and overcome the liability of newness and help diminish feelings of isolation and loneliness. The forum appears to have met this need and the emphasis as it moves forward will be on ‘buddying, or mentoring or banging heads together’ (Interviewee 1).

Summary

The ‘network’ was created by a local enterprise company as a forum for individuals who were considering business start-up to share business ideas. The forum complied with the strategic objectives of the enterprise agency in that it would serve as a catalyst for new business start-ups and was a much formalized, top-down approach to networking, simply creating an arena where like-minded people could receive and exchange ideas and information. This very instrumental approach appeared to be premised on the assumption that a network was based on transactions, albeit with potential for reciprocity and mutualized self interest.

Although originally highly ‘artificial’, in the sense that the network was *manufactured*, a top-down creation, the data demonstrates that the network quickly took on a meaning and purpose of its own. The nature of ties changed from purely calculative; ownership and organization of the network was wrested from the enterprise company and invested in network members. Eventually the network had changed completely; in structure, members, purpose and the bonds between members. Self-interest had given way to joint-interest, network membership benefits were described in terms of mutual support and transactional benefits were almost entirely replaced by deferred reciprocity. Network links became affective ties, built upon social relationships.

The analysis in Table 4 indicates that the network evolved into its current format reflecting changes in the underlying network need and reflecting the social context of the network members. There was an evolution from generating ideas to a mutual support mechanism, and as the network passed through its different phases, it matured, and the strength of the ties became more crucial (Figure 3).

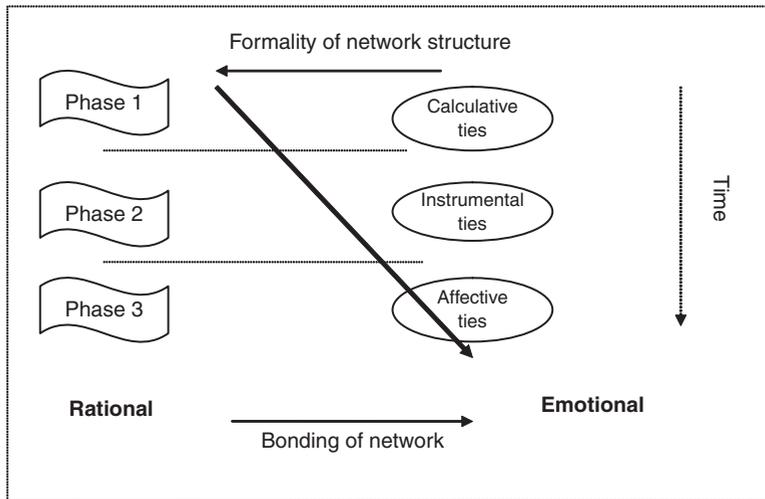


Figure 3. Process and the Changing Nature of the Network

Conclusion

Neergaard and Ulhøi (2006) found that government agency may destroy existing cooperative arrangements. From the study reported here it can be argued that, at least initially, the agency performed an important broker role (Aldrich, 1989), providing an extensive network of contacts which was key in marketing the forum, organizing speakers, providing added-value for members and facilitating networking opportunities. However, latterly, the agency perceived ‘networking’ to entail name badges, membership directories, notice boards and ‘a networking event on a big scale ... with gingham table cloths, candles, wines and cheeses’ (minutes, August 2000). These are simply mechanisms, which might facilitate the act of networking. They could, of course, also be read as a collection of symbolic artefacts redolent of the public sector origins of the agency, and as such, unlikely to promote a positive response in entrepreneurs. It seems then that the enterprise agency was either not aware of the significance of interaction, or that they simply did what they could in the ways that matched their strategic objectives. What is evident is that it may not be possible to ‘create’ a real entrepreneurial network in this way. Networks seem to be about the people within them and are operated by the networking process; itself a relational dimension. These characteristics and processes cannot be imposed or created artificially; they emerge. Yet, over time, the network did evolve into something the members found very useful. In many ways the evolved network matches what the literature describes as a social network. Indeed the outcomes – identity, social learning, and enactable environments – are the characteristics of a viable social network.

The findings demonstrate that networking is a social process. When this network was only about opportunity-driven ties, many of the members became involved in transforming it from a resource-based view. If what we have noted is actually evolution, it could be argued that natural selection favours social networks! This is arguable because although the social context changed, this was also related to the underlying change in the members’ needs. From an Lamarckian evolutionary perspective the species changed as well as the environment. Nonetheless, change is reflected in the network content and structure, which constantly shifted to fit its members’ needs. The network will not satisfy all of its members all of the time; certainly, the forum’s present

development into a small, strong-tie network will not suit those seeking a larger network of indirect ties to substantially increase their access to information. However, it is argued that ‘networking involves expanding one’s circle of trust’ (Aldrich, 1989: 108) and this involves nurturing casual, weak ties into strong ties. This appears to be the process that we observed. While similar findings have been made for dyadic ties moving from weak and instrumental to strong and multiplex (Larson, 1992; Johannisson et al., 1994; Jack et al., 2004), this is the first time that a similar dynamic has been identified at the level of the network itself.

While previous work within the entrepreneurship, economic and industrial marketing literature has recognized the need to examine exchange relationships (Mitchell, 1962; Grannovetter, 1985; Casson, 1990; Easton and Håkansson, 1996; Denrell et al., 2003; Ford et al., 2003; Biggart and Delbridge, 2004; Casson and Guista, 2007), in this article a detailed discussion is provided which demonstrates what happens within exchange relations and also considers the development of a network. The findings, therefore, have a number of implications for network research. The key implication from this study is that theory which prioritizes networks as primarily based on resources is much too narrow. Obviously, resource dependency is a key aspect and undoubtedly a motivation to network. However, what seems to make the ‘net’ work is the interactions and these are based on social factors; affinity, shared attitudes and trust. Theory which tries to explain from purely a functional perspective cannot encompass what it means to network. Attempts to chart this network, with all the caveats that must accrue to a single study, suggest that networking may have a calculative instrumental purpose which provides a guide to how structures evolve. However, the process of networking is profoundly social. It is based on knowledge of the other and derived through interaction that satisfies human rather material needs. Thus network process is emotional. In consequence it can be argued that while networks may emerge from a rational instrumental concern to extend resources, the bonding process that characterizes how networks work, is less about reciprocity of resources but more about social exchange and mutuality.

References

- Aldrich HE (1989) Networking among women entrepreneurs. In: Hagan O, Rivchun C, and Sexton D (eds) *Women-owned Businesses*. New York: Praeger, pp. 103–132.
- Aldrich HE (2001) Who wants to be an evolutionary theorist: Remarks on the occasion of the year 2000 OMT Distinguished Scholar Career Award Presentation. *Journal of Management Enquiry* 10(2): 115–127.
- Aldrich HE and Zimmer C (1986) Entrepreneurship through social networks. In: Sexton D, Smilor R (eds) *Art and Science of Entrepreneurship*. Cambridge MA: Ballinger Publishing Company, pp. 3–23.
- Alvesson M and Sköldböck K (2000) *Reflexive Methodology: New Vistas for Qualitative Research*. London: SAGE Publications.
- Anderson JC, Håkansson H and Johanson J (1994) Dyadic business relationships within a business network context, *Journal of Marketing*, 58(4): 1–15.
- Anderson AR and Jack SL (2002) The articulation of entrepreneurial social capital: Content and process. *Entrepreneurship and Regional Development* 14(3): 193–210.
- Anderson AR, Park J, and Jack SL (2007) Entrepreneurial social capital: Conceptualizing social capital in new high-tech firms. *International Small Business Journal* 25(3): 243–267.
- Arias JTG (1995) Do networks foster innovation. *Management Decision* 33(9): 52–56.
- Arocena J (1984) Le Genie et le Carnet d’adresses’ [The Genius and the Address Book], *Autrement* 59: 182–7.
- Barnir A and Smith K (2002) Interfirm alliances in the small business: The role of social networks. *Journal of Small Business Management* 40(3): 219–232.
- Biggart N and Delbridge R (2004) Systems of exchange. *Academy of Management Review* 29(1): 28–49.

- Birley S (1985) The role of networks in the entrepreneurial process. *Journal of Business Venturing* 1(1): 107–117.
- Blackburn RA, Curran J, and Woods A (1990) *Exploring Enterprise Cultures: Small Service Sector Owners and Their Views*. Kingston upon Thames: Small Business Research Centre, Kingston University.
- Bøllingtoft A (2007) A critical realist approach to quality in observational studies. In Neergaard H, Ulhøi JP (eds) *Handbook of Qualitative Research Methods in Entrepreneurship*. London: Edward Elgar, 406–433.
- Borgatti SP (2002) The state of organizational social network research today. Available at: www.analytictech.com/mb874/Borgatti%20The%20state%20of%20organizational%20network%20research%202.doc (accessed 23 February 2006).
- Borgatti SP and Foster PC (2003) The network paradigm in organization research. *Journal of Management* 29(5): 991–1013.
- Brüderl J and Preisendörfer P (1998) Network support and the success of newly founded businesses. *Small Business Economics* 10: 213–225.
- Burrell G and Morgan G (1979) *Sociological Paradigms and Organizational Analysis*. London: Heinemann Educational Books.
- Carsrud AL and Johnson RW (1989) Entrepreneurship: A social psychological perspective. *Entrepreneurship and Regional Development* 1: 21–31.
- Casson M (1990) *Enterprise and Competitiveness*. Oxford: Clarendon.
- Casson M and Guista M (2007) Entrepreneurship and social capital: Analysing the impact of social networks on entrepreneurial activity from a rational action perspective. *International Small Business Journal* 25: 220–244.
- Chell E and Baines S (2000) Networking, entrepreneurship and micro business behaviour. *Entrepreneurship and Regional Development* 12: 195–215.
- Chell E and Haworth JM (1992) The development of a research paradigm for the investigation of entrepreneurship: Some methodological issues. *UIC/AMA Research Symposium on Marketing and Entrepreneurship*, INSEAD, France.
- Coviello NE (2005) Integrating qualitative and quantitative techniques in network analysis. *Qualitative Marketing Research: An International Journal* 8(1): 39–60.
- Curran J and Blackburn R (2001) *Researching the Small Enterprise*. London: SAGE Publications.
- Curran J and Blackburn R (1994) *Small Firms and Local Economic Networks: The Death of The Local Economy*. London: Paul Chapman Publishing.
- Davidsson P and Honig B (2003) The role of human and social capital among nascent entrepreneurs. *Journal of Business Venturing* 18(3): 301–331.
- De Koning AJ (1999) Opportunity Formation from a Socio-Cognitive Perspective. Babson College/Kauffman Foundation Entrepreneurship Research Conference, Columbia SC, May 1999.
- Denrell J, Fang C, and Winter S (2003) The economics of strategic opportunity. *Strategic Management Journal* 24: 977–990.
- Drakopoulou Dodd S, Jack SL and Anderson AR (2002) “Scottish Entrepreneurial Networks in an International Context”, *International Small Business Journal*, 20(2): 213–219.
- Easton G (1995) Methodology and industrial networks. In: Möller K, Wilson DT (eds) *Business Marketing: An Interaction and Network Perspective*. Norwell, MA: Kluwer Academic Publishing, 411–491.
- Easton G and Håkansson H (1996) Markets as networks: Editorial introduction. *International Journal of Research in Marketing* 13: 407–413.
- Eisenhardt KM (1989) Building theories from case study research. *Academy of Management Review* 14(4): 532–550.
- Etzioni A (1988) *The Moral Dimension, Towards a New Economics*. New York: The Free Press.

- Finch J (2002) The role of grounded theory in developing economic theory. *Journal of Economic Methodology* 9(2): 213–234.
- Fombrun CJ (1982) Strategies for network research in organizations. *Academy of Management Review* 7(2): 280–291.
- Ford D, Gadde L-E, Håkansson H, and Snehota I (2003) *Managing Business Relationships*. Chichester: John Wiley.
- Foss L (1994) Entrepreneurship: The impact of human capital, a social network and business resources on start-up. Unpublished PhD thesis, Norwegian School of Economics and Business Administration, Bergen.
- Gadde LE, Huemer L and Håkansson H (2003) Strategizing in industrial networks, *Industrial Marketing Management*, 32(5): 357–65
- Gioia D and Pitre E (1990) Multiple perspectives on theory building. *Academy of Management Review* 15(4): 584–602.
- Glaser B and Strauss A (1967) *The Discovery of Grounded Theory: Strategies for Qualitative Research*. New York: Aldine.
- Granovetter M (1973) The strength of weak ties. *American Journal of Sociology* 78(6): 1360–1380.
- Granovetter M (1985) Economic action and social structure: The problem of embeddedness. *American Journal of Sociology* 91(3): 481–510.
- Grant P and Perren L (2002) Small business and entrepreneurial research: Meta-theories, paradigms and prejudices. *International Small Business Journal* 20(2): 185–211.
- Greve A and Salaff JW (2003) Social networks and entrepreneurship. *Entrepreneurship Theory and Practice* 28(1): 1–22.
- Halinen A and Tornroos JA (2005) Using case study methods in the study of contemporary business networks. *Journal of Business Research* 58(9): 1285–1297.
- Hansen EL (1995) Entrepreneurial networks and new organisation growth. *Entrepreneurship Theory and Practice* 19(4): 7–19.
- Hill J, McGowan P, and Drummond P (1999) The development and application of a qualitative approach to researching the marketing networks of small firm entrepreneurs. *Qualitative Market Research* 2(2): 71–81.
- Hite JM (2003) Patterns of multidimensionality among embedded network ties: a typology of relational embeddedness in emerging entrepreneurial firms, *Strategic Organization*, 1(1), 9–49.
- Hite JM (2005) Evolutionary processes and paths of relationally embedded network ties in emerging entrepreneurial firms. *Entrepreneurship: Theory and Practice* 29(1): 113–144.
- Hite JM and Hesterly WS (2001) The evolution of firm networks: from emergence to early growth of the firm, *Strategic Management Journal*, 22(3): 275–286.
- Hoang H and Antoncic B (2003) Network-based research in entrepreneurship: A critical review. *Journal of Business Venturing* 18(2): 165–187.
- Huggins R (2000) The success and failure of policy-implanted inter-firm network initiatives: Motivations, processes and structure. *Entrepreneurship and Regional Development* 12: 11–135.
- Human S and Provan K (1996) External resource exchange and perceptions of competitiveness within organizational networks: An organizational learning perspective. *Frontiers of Entrepreneurship Research*. Available at: www.babson.edu/entrep/fer/papers96/human/
- Jack S (2010) Approaches to studying networks: Implications and outcomes. *Journal of Business Venturing* 25(1): 120–137.
- Jack SL and Anderson AR (2002) The effects of embeddedness on the entrepreneurial process. *Journal of Business Venturing* 17(5): 467–487.
- Jack S, Dodd SD, and Anderson A (2008) Change and the development of entrepreneurial networks over time: A processual perspective. *Entrepreneurship and Regional Development* 20(2): 125–159.

- Jack SL, Dodd SD, and Anderson AR (2004) Social structures and entrepreneurial networks: The strength of strong ties. *International Journal of Entrepreneurship and Innovation* 5(2): 107–120.
- Johannisson B (1986) Network strategies: Management technology for entrepreneurship and change. *International Small Business Journal* 5(1): 19–30.
- Johannisson B (1987) Beyond process and structure: Social exchange networks. *International Studies of Management and Organisation* XVII (1): 3–23.
- Johannisson B (1988) Business formation: A network approach. *Scandinavian Journal of Management* 49(3/4): 83–99.
- Johannisson B (1996) The dynamics of entrepreneurial networks. *Frontiers of Entrepreneurship Research*, Babson College, Wellesley MA. Available at: www.babson.edu/entrep/fer/papers96/johannis/
- Johannisson B and Mønsted M (1997) Contextualizing entrepreneurial networking. *International Journal of Management and Organization* 27(3): 109–137.
- Johannisson B and Nilsson A (1989) Community entrepreneurs: Networking for local development. *Entrepreneurship and Regional Development* 1(1): 3–19.
- Johannisson B and Peterson R (1984) The personal networks of entrepreneurs. Paper presented at the ICSB Conference, Ryerson Polytechnical Institute, Toronto.
- Johannisson B, Alexanderson O, Nowicki K, and Senneseth K (1994) Beyond anarchy and organization: Entrepreneurs in contextual networks. *Entrepreneurship and Regional Development* 6(3): 329–356.
- Johanson J and Mattsson L (1987) Interorganisational relations in industrial systems: a network approach compared with a transaction cost approach, *International Studies of Management and Organisation*, 17(1): 34–48.
- Larson A (1992) Network dyads in entrepreneurial settings: A study of the governance of exchange relationships. *American Science Quarterly* 37, 76–104.
- Larson A and Starr J (1993) A network model of organization formation. *Entrepreneurship: Theory and Practice* Winter, 5–15.
- Lechner C and Dowling M (2003) Firm networks: External relationships as sources for the growth and competitiveness of entrepreneurial firms. *Entrepreneurship and Regional Development* 15: 1–26.
- Mitchell JC (1969) The concept and use of social networks. In: Mitchell JC (ed.) *Social Networks in Urban Situations*. Manchester: Manchester University Press, 1–50.
- Mitchell JC (1973), Networks, Norms and Institutions, in *Network Analysis. Studies in Human Interaction*, Eds. J. Boissevain and J.C. Mitchell, Mouton, The Hague, pp.2–35.
- Neergaard H, Shaw E, and Carter S (2005) The impact of gender, social capital and networks on business ownership: A research agenda. *International Journal of Entrepreneurial Behaviour and Research* 11(5): 338–357.
- Neergaard H and Ulhoi J (2006) Transformation of interorganizational entrepreneurial networks. *Entrepreneurship Theory and Practice* 30(4): 519–539.
- ODonnell A, Gilmore A, Cummins D, and Carson D (2001) The network construct in entrepreneurship research: A review and critique. *Management Decision* 39(9): 749–760.
- Ostgaard TA and Birley S (1994) Personal networks and firm competitive strategy – a strategic or coincidental match? *Journal of Business Venturing* 9: 281–305.
- Schutjens V and Stam E (2003) The evolution and nature of young firm networks: A longitudinal perspective. *Small Business Economics* 21: 115–134.
- Scottish Enterprise (1993) *Improving the Business Birth Rate: A Strategy for Scotland*. Glasgow: Scottish Enterprise.
- Silverman D (2000) *Doing Qualitative Research*. London: SAGE Publications.

- Singh RP, Hills GE, Lumpkin, GT and Hybels RC (1999). The entrepreneurial opportunity recognition process: examining the role of self-perceived alertness and social networks. Paper presented at the 1999 Academy of Management Meeting, Chicago, IL.
- Shaw E (2006) Small firm networking: An insight into contents and motivating factors. *International Small Business Journal* 24(1): 5–29.
- Steier L and Greenwood R (1995) Venture capital relationships in the deal structure and post-investment stages of new firm creation. *Journal of Management Studies* 32(3): 337–358.
- Szarka J (1990) Networking and small firms. *International Small Business Journal* 8(2): 10–22.
- Uzzi B (1997) Social structure and competition in interfirm networks: The paradox of embeddedness. *American Science Quarterly* 42(1): 35–67.
- Wolcott HF (1990) *Writing Up Qualitative Research, Qualitative Research Methods Series 20*. Thousand Oaks, CA: SAGE Publications.
- Yin RK (1994) *Case Study Research: Design and Methods*, 2nd edn. Thousand Oaks, CA: SAGE Publications.
- Zeleny M (2001) Autopoiesis (self-production) in SME networks. *Human Systems Management* 20(3): 201–207.
- Zhang J and Lin C (2005) Changing structures of SME networks: Lessons from the publishing industry in Taiwan. *Long Range Planning* 38: 145–162.

Sarah Jack is Professor of Entrepreneurship at the Institute for Entrepreneurship and Enterprise Development, Lancaster University. Prior to joining academia, Sarah worked in the manufacturing and service industries. Sarah's research has focused on the social aspects of entrepreneurship, especially social networks and social capital. She is also interested in enterprise education.

Alistair R Anderson is director of the Centre for Entrepreneurship at Aberdeen Business School, Robert Gordon University. He also holds honorary and visiting positions at Aarhus Business School, Aberdeen University and Lancaster University. After trying his hand at entrepreneurship, he became interested in trying to understand how small business and entrepreneurs operate. His research interests and publications include the social aspects of entrepreneurship- social constructions of entrepreneurship, networking and social capital.

Sarah Dodd is Associate Professor of Entrepreneurship at ALBA Graduate School of Business, in Athens. Sarah's research has focused on the structure, content and - especially - processes of entrepreneurial networks. Other work has included the relationship between family and the entrepreneurial business, religion and entrepreneurship, and cross-cultural conceptualizations of the entrepreneur in public discourse. She also has an interest in enterprise cultures, enterprise education, and enterprise policy.