

Understanding Organisational Networking Behaviours in a Business Network Context

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Abstract

This research adopts a network perspective and attempts to understand how firms 'network' beyond their directly connected counterparts. Furthermore, it examines how they exploit their webs of direct and indirect relationships in order to embrace the potential opportunities and hindrances in the network. The dynamic capabilities and the interaction approach are the two theoretical perspectives that guide this research to understand organisational networking behaviours. Thirty-one semi-structured interviews with director-level managers from fifteen UK manufacturing firms were conducted. We identify four types of organisational networking behaviours by the way in which firms utilise their web of relationships to achieve certain goals. These purposeful networking behaviours can be categorised into following categories: information acquisition, opportunity enabling, strong-tie-approach, and weak-tie-approach resource mobilisation. By utilising the concept of networking in the IMP literature and the strong and weak tie argument in economic sociology, this study demonstrates that together these two perspectives provide deeper understanding as to how firms operating in business-to-business markets exploit their webs of direct and indirect relationships, taking into consideration the embeddedness and interconnectedness of the network context.

Keywords

Organisational networking behaviours, network management, dynamic capabilities, industrial network perspective

INTRODUCTION

Networks have been observed as the new form of markets through increasingly intense competition in the marketplace¹(Achrol, 1997; Miles and Snow, 1992; Möller *et al.*, 2005). It has been regarded as a new paradigm (Achrol, 1997; Thorelli, 1986) as well as new era (Möller and Halinen, 1999) in both marketing theory and practice. This realisation reflects the gradual shift in focus in marketing literature, that is, from dyadic business relationships to business networks. The importance of business relationships has been well established and is seen as one of the key drivers of company success (Morgan and Hunt, 1994; Palmatier *et al.*, 2007). In addition, looking at business relationships as part of a dyadic approach has helped in understanding the essence of exchanges and interactions that take place in a relationship between two parties (e.g. Anderson and Narus, 1990; Barnes *et al.*, 2007; Hallén *et al.*, 1991). However, relationships do not exist in isolation (Anderson *et al.*, 1994; Granovetter, 1985; Ritter, 2000). Instead, they are interconnected and aggregated as business networks, in which firms and numerous others are embedded. While the competition intensifies drastically, how to efficiently and effectively *manage*²the inter-organisational network becomes a critical issue for firms operating in business-to-business markets (Miles and Snow, 1992; Möller and Halinen, 1999). It is suggested that firms' ability to utilise and capitalise on the business network could become a source of competitive advantage, because the ability to cope with the social complexity of the business network makes it difficult for competitors to imitate (Barney, 1991; Gulati *et al.*, 2000).

Given the complex environment surrounding firms in business markets, they cannot just rely on the resources they have within the organisation (e.g. what kind of resources and resource configurations are available to them within their firms), nor within a particular dyadic relationship (i.e. the collaborative and cooperative resources based on relational interactions) to create a superior performance. There are also potential opportunities and hindrances within the wider network in which a firm is embedded. These are spread out in the landscape of the network ('space') and across different time periods ('time') (Ford *et al.*, 2009). Therefore, understanding the way in which firms interact with their business networks as the enabler to a superior firm performance is of particular importance to both the existing literature and the practitioners operating in business-to-business markets. By adopting a more holistic view of the social world one can better grasp how a firm makes its way, or muddles through, to success (Gulati *et al.*, 2000). More specifically, by assessing how a firm utilises its relationships and the overall network context, the consequences (e.g. economic outcome) of those behaviours can be more rigorously examined (Dyer and Hatch, 2006; Rivera *et al.*, 2010).

Despite the significance stated above, currently research into how firms interact with their networked environment still remains relatively unexplored and untested compared to that in business relationships (Äyväri and Möller, 2008; Dyer and Hatch, 2006). Studies in economic sociology hold the view that a network can yield a greater economic outcome than the sum of the firms within it (Thorelli, 1986; Uzzi, 1996; Uzzi and Gillespie, 2002). Trust between parties is thought to be the key mechanism to foster the efficiency and effectiveness of knowledge sharing and resource mobilisation in the network. However, being embedded in a

¹This statement is not to dispute the fact that networks have existed ever since people started trading, but to assert the implications of a paradigm shift in the literature.

²It is acknowledged that firms cannot control their networks, and they can only try to manage and cope within the constraints of the networks in which they are embedded (Ford *et al.*, 2003).

web of business relations can be a constraint at the same time (e.g. Burt, 2000; Granovetter, 1985; 2005; Rivera *et al.*, 2010; Uzzi, 1996; 1997). Although one single firm cannot control its network, it can, nevertheless, manage its web of relationships within the constraint of the network (Håkansson and Ford, 2002). From the firm's point of view, how they strategically interact with various counterparts to realise the opportunities and constraints afforded by the network is a subject that deserves more attention. Therefore, there exists the need to provide a deeper understanding of organisational behaviours in response to the wider network and how they impact upon firm performance, given that the current literature is still short of concepts that capture the domain of a firm's embeddedness in networks and its resulting organisational responses. Furthermore, there is also the need to provide explicit implications for business-to-business practitioners to apply in their managerial decision-making when they are faced with issues of responding to complex multi-firm networks (Brennan and Turnbull, 2002).

Several scholars have contributed to the conceptualisation and operationalisation of network management by developing the concepts of network competence (Ritter, 1999; Ritter and Gemünden, 2003) and network capabilities (Walter *et al.*, 2006), both of which focus on inward organisational activities on managing web of direct relationships. The conceptualisation and operationalisation of how firms 'network' beyond their 'intentional networks' (i.e. a firm's web of direct relationships) is lacking in the literature. Building upon the aforementioned concepts and further expanding the scope of network management, this study aims to understand organisational networking behaviours by taking into account the interconnectedness and embeddedness of a firm's direct and indirect relationships. That is to consider the interactive aspect of relationships that goes beyond the direct relationships, understood from the industrial network perspective (see Håkansson, 1982; Turnbull *et al.*, 1996; www.impgroup.org). This research attempts to understand how firms exploit their web of direct and indirect relationships in order to embrace the potential opportunities and hindrances in the network. The key research question guiding this study is that what kind of behaviours can be observed, when firms intentionally interact with their direct and indirect interacting partners in order to achieve their business ambitions? In addition, what purposes do these networking behaviours serve?

This article will be organised as follows. We will first discuss the theoretical framework that serves as the backbone of this study. We will then review the relevant business relationship and network literature, and furthermore the intersection of these two areas of research. Research methodology and research results will be presented. Finally, this article will conclude with a discussion of the research findings and the implications for the existing literature, future research direction and practitioners.

THEORETICAL FRAMEWORK

Resource dependence theory suggests that “*organisations are embedded in an environment comprised of other organisations*” (Pfeffer and Salancik, 1978, p. 2). It also stresses that the interconnectedness of numerous others in the environment causes difficulties for organisations, because of the accompanied uncertainty and changes. This implies, from a focal organisation’s point of view, that the environment can be viewed as a network of numerous connected organisations (Astley and Fombrun, 1983; Miles and Snow, 1992; Thorelli, 1986). When this view is adopted, the links between these organisational actors, manifested by the interactions, have to be considered at the same time. Organisations, thus, are not atomistic, instead, they seek resources from their counterparts and try to influence others in order to gain control of desired resources. At the same time, they are influenced by others and they give way some of their resources to their counterparts.

This study understands organisational networking behaviours from a focal firm’s perspective. We are interested in how a firm capitalises on its network context by exploiting the relationships it has with various counterparts. With this perspective in mind, we try to understand how firms interact with their counterparts and further mobilise resources from those that are directly and/or indirectly connected to them and how they strategically utilise them as a means of realising the opportunities in the network. This study assumes that some firms could leverage network dynamics better than the others by strategically utilising the web of direct and indirect relationships. This view is supported by the resource-based view (RBV) (Barney, 1991; Penrose, 1959; Wernerfelt, 1984). The particular resource this study concerns pertains to the ability of managing “social complexity” (Barney, 1991, p.110). The RBV acknowledges that the reputation that exists in the web of relationships with suppliers and customers can be a source of competitive advantage since it is difficult to imitate by competitors. However, the RBV does not specifically provide a framework to account for external resources that resides outside of the firms and that can be mobilised by firms through interactions with their counterparts. Dynamic capabilities approach (DCA), on the other hand, acknowledges that “the term ‘capabilities’ emphasise the key role of strategic management in appropriately adapting, integrating, and reconfiguring resources, and functional competences to match the requirements of a changing environment” (Teece *et al.*, 1997, p. 515). It therefore, provides the base for organisational development of the way in which firms interact with its networked environment. Although firms do not “own” resources that reside in the relationships or the wider context, the network, they could mobilise these resources to fulfil their business ambitions through the web of relationships (Hunt, 2000).

The DCA lacks elaboration of dynamic (networked) environment and the interactions taking place in it. On the other hand, the industrial network perspective (INP) (also known as the interaction approach) (see Håkansson, 1982; Turnbull *et al.*, 1996; www.impgroup.org) informs this research about the nature of network dynamics and the accompanied managerial issues. Most studies adopting the INP provide rich narrative without explicitly stating managerial implications, and they have been criticised for its limited usefulness for practitioners (Brennan and Turnbull, 2002). This research, therefore, proposes a theoretical framework, conflating the DCA and INP, and argues that the combination can mitigate the shortcomings of individual perspectives and form a fertile ground for understanding the scope of networking behaviours. However, there exists some discrepancy in regard to their underlying ontological assumptions. The pivotal argument between these two schools of thought lies in their ontological stances about the organisation-environment boundary and the degree to which firms hold control of their counterparts.

There are two key issues surrounding the differences between the DCA and the INP. First, the seemingly conflicting assumptions are due to the approaches and viewpoints they employ rather than the nature of the business world they see. The ‘conventional’ RBV in strategic management see firms as atomistic actors who ‘internally’ possess resources. Firms have the ability to decide with whom they want to partner in their business sphere, and they have a great deal of control over their counterparts. The more contemporary studies in strategic networks have moved away from the atomistic view of firms and contend that only by taking a relational perspective firms’ differential performance can be better assessed (Gulati *et al.*, 2000). More recently DCA was developed to account for firms’ ability to adapt to the volatile environmental changes and reconfigure the resources, including ‘external resources’ (e.g. social capital embedded in the network).

On the other hand, the INP argues that firms cannot fully control the actors, resources and activities (ARA) that reside within their interacting partners, and they even lose part of their own ARA in the interactions with their counterparts (for more details about ARA model, see Ford *et al.*, 2006, pp. 27-39). The ARA configuration is constantly changing due to the interactions taking place all over the network. As such the system (i.e. network) is fluid and complex in nature due to the interconnectedness of all relationships embedded in the networks (Halinen and Törnroos, 1998). This results in network being the governing mechanism that no single firm can design or manage the network.

In addition, Ford and Håkansson (2006) argue that the ontological stances about the business world can be seen in two ways: one is based on ‘actions’ (focal firm perspective), the other ‘interactions’ (interactive dyadic perspective). They see these two worlds as different ways of thinking, and further contend that the dominance in the literature of the former is due to the fact that it is easier for researchers to observe and explain the phenomena under study. This research argues that it is necessary to look at organisational networking behaviours from a firm’s perspective, because it is firms *themselves* that see the world and interact with it, rather than how the world should be seen from the perspective of “a purely network structuralist” (Zaheer and Bell, 2005, p. 812). This is certainly not to accept the assumption that firms are atomistic and hold resources internally and exclusively. As discussed above, the basic assumptions underlie these two perspectives are not completely incommensurable. A middle ground between these two approaches is needed, if one is to understand the context of a firm being embedded in a network and its implications to firm performance. We believe that this is an important aspect in advancing further understanding of the way in which firms interact with their network context and in producing knowledge that is practically relevant to business managers (Astley, 1984; Whitley, 2008).

Secondly, the other difference between these two perspectives is whether or not the network can be controlled and managed fully by a focal firm. Möller and Rajala (2007) argue that the manageability of network is the key difference between these two perspectives. This difference lies in how network is treated respectively in them. When taking a strategic management perspective (e.g. RBV and DCA), network can be designed and confined by the firms as ‘intentional network’ or ‘strategic network’. On the contrary, in the INP it is spatially borderless, but the decision lies in the observers as to where to draw the line, depending on the purpose of the research (Ford *et al.*, 2006). This research holds the view that it is firms themselves draw the boundary of their surrounding based on their vision and how they define their network context. Some firms might see their network consisted of only those immediate counterparts, while the others consider those who are indirectly connected to them. This research attempts to understand how firms manage their ‘intentional networks’ of direct relationships and beyond them (i.e. considering indirect relationships), and therefore in agreement with Möller and Rajala (2007), two perspectives enrich each other and together

provide a more fertile ground for this study. It is also suggested by several scholars that combining the INP and DCA (and other RBV-rooted perspectives) is a fruitful way of examining network management from an organisational actor's perspective (Foss, 1999; Möller *et al.*, 2005; Möller and Svahn, 2003).

LITERATURE REVIEW

A focal firm's business network consists of its direct and indirect relationships with numerous other organisations, including its customers and suppliers. Zaheer *et al.* (2010) suggest that network phenomena are inherently structural (i.e. multi-level structure), and therefore making explicit the structural levels of analysis will help provide a more complete understanding of the actions and consequences behind these phenomena. Building on this argument, to understand organisational networking behaviours, a starting point is to examine the organisational behaviours towards the immediate relationships and then consider indirect relationships based on the proximity to a focal firm. Since customers and suppliers are arguably the most important immediate counterparts to firms operating in business market, we first review the literature in relationship marketing and management. The discussion will then lead to a review in network literature, and reason the necessity to go beyond direct relationships.

BUSINESS RELATIONSHIPS AND BUSINESS SUCCESS: WHAT IS MISSING?

The challenge for a firm is not only to fulfil customer needs, but to develop and maintain relationships with their customers and other partners who contribute in this process (Morgan and Hunt, 1994). Besides customers, a firm's interacting partners, such as suppliers, also play a critical role in impacting upon a focal company's offerings to its customers. Extensive research adopting different theoretical perspectives (e.g. transaction cost economics, resource dependence theory, social exchange theory and the interaction approach) has been employed to understand various aspects of business relationships, showing that relationships with a multitude of business partners are of importance in relation to outcome performance (for summaries, see Brennan *et al.*, 2007; Donaldson and O'Toole, 2002). Such an argument is in line with Jüttner *et al.* (2010) who suggest that relationships upstream with suppliers and downstream with customers should be managed integrally and simultaneously, because of the interactive nature of resource and activity configuration. Within such an integrative perspective, customer relationships are facilitated by strategic supplier alignment.

Walter *et al.* (2006) argue that the ability to coordinate with various business partners in an innovative collaboration can increase the success rate of the innovation, because the knowledge accumulated through the interactions amongst them can better prevent failures. Although the empirical evidence suggests that the direct relationship does not hold, its role of strengthening the outcome of the collaboration is asserted. Palmatier *et al.* (2007) argue that managing and maintaining successful business relationships is critical to a firm's overall performance due to the contribution of cooperated partners and the synergy of resource utilisation from other parties.

A comparative longitudinal meta analysis carried out by Palmatier *et al.* (2007) reviews and tests four models of inter-organisational relationship based on four theoretical perspectives: commitment-trust, dependence, transaction cost economics and relational norms. They argue that studies concern the key drivers of relationship performance (or financial performance) very often only use one theoretical perspective and certain mechanisms to determine the outcome of engaging in business relationships, and therefore missing some critical insights in relationship management. They conclude that a RBV model

combining various mechanisms from these four perspectives can provide a more comprehensive picture of relationship management. They argue that managers should focus on the efficacy and effectiveness of relationship management, rather than purely depending on relationship-specific investments. In addition, the investments towards relationships must be combined with firms' existing resources in a way that creates value for partners and is difficult for competitors to imitate.

However, a dyadic perspective tightly captures seller-buyer (and many other settings) relationships in a one-to-one fashion without considering other relationships that a focal firm has. It does not take into account the interconnectedness of relationships, which bring about opportunity and rich information and resources to firms embedded in the web of relationships. Therefore, there is a need to go beyond individual relationships, if one is to understand how firms exploit their networks through interacting with their counterparts.

NETWORK MANAGEMENT AND NETWORKING

A key question has been asked in network research: what is it that creates a greater economic outcome amongst a group of connected firms that surpasses the sum of isolated firms? Social capital (i.e. social resources that are embedded in networks) has been one of the pivotal themes in network research and has provided some insights into the aforementioned question (e.g. Burt, 2000; 2007; Granovetter, 1973; 1985; 2005; Gulati and Sytch, 2007; Jack, 2005; Uzzi, 1996; 1997; Uzzi and Gillespie, 2002; Vanhaverbeke *et al.*, 2009). This stream of research looks at how the web of relationships that a person or a firm has, whether they be well established or arms-length relationships, makes an impact on a specific outcome.

Both weak and strong relationships have their advantages and they serve different purposes for a focal firm. Uzzi (1996) argues that strong relationships (called embedded ties in his study), which are relationships characterised with high levels of trust, information sharing and problem-solving coordination, enable a firm to get access to desired information and new opportunities provided by the networks. It can be inferred that when a firm has strong relationship management skills, it raises the possibility of strengthening the ability to capitalise on its network. Granovetter (1973), on the other hand, argues that the structure of the organisational or personal network is the key for accessing novel information and opportunities (also see Granovetter, 2005). He argues that weak relationships serve as bridges for a focal firm to link with others, which might subsequently bring about novel information and opportunities that cannot be fulfilled by other stronger relationships. This argument shares a similar vein with Burt's (2000) notion of structural hole where a weak relationship can potentially work in focal firm's favour by providing the connection with its own community. The strong and weak relationship argument has shed some light on firm performance from a structural network perspective, but the challenge for individual firms is that how to identify and exploit these two different types of relationships to their full potential. Therefore, there still exists a question that is unsolved: can a firm intentionally or consciously manoeuvre itself into a strategic position where it can exploit its network of relationships better? If so, what kind of behaviours can be observed?

Empirical evidences regarding the effects of a firm's networking behaviours on the performance are limited. Zaheer and Bell (2005) argued that 'network-enabled capabilities' (i.e. the combination of a superior set of internal resources and a beneficial network structure) are crucial to firms' performance, especially for firms who are in a superior network position. Although the internal resources in their study are not directly linked to networking behaviours the present study concerns, it provides some grounding to examine the relationship between firms' behaviours towards the networks in relation to performance. It also implies that advantages related to a superior network position alone would not warrant a

superior performance without the ability to access to the desired information and resources through interacting with their business partners.

The broad body of relationship literature provides evidences on the necessity that firms need to engage in business relationships with various counterparts in order to compete in the market place and to succeed. However, when a network perspective is adopted, relationships do not exist in isolation, rather, they are interconnected. Thus, information can flow from one point to the other and across the whole network of connected organisations. When firms develop relationships with their counterparts, not only do they have directly connected relationships in mind, but also those indirectly connected ones and the synergies across various partners (Anderson *et al.*, 1994). These can be used not only to mobilise resources in current relationships, but to other indirectly connected ones. Therefore, direct interacting partners serve to act as media or conduits for firms to reach opportunities afforded by the network, and as buffers for them to cushion the impact of fast-changing dynamics in a volatile environment. Ritter and Gemünden (2003) suggest that the management of the web of connected relationships (called ‘network competence’) can bring about the synergy of the connected relationships and increase economic outcomes (e.g. innovation success). Each firm’s position in the network is unique, and therefore different from any other network members. This uniqueness in position gives rise to some opportunities and hindrances afforded by the network, and thus raises strategic implications from a firm’s perspective (Johanson and Vahlne, 2011).

However, these opportunities are not freely available to firms embedded in the network. Jack (2005) argues that only firms closely interacting with directly connected counterparts are able to embrace these opportunities. This study further posits that it requires ‘networking’ ability to access to and capitalise on the resources that exist beyond the reach of the firms, and that they can largely only be accessed through interacting with counterparts (Jack, 2005; Uzzi, 1996). Thus, networking behaviours need to be understood along with the way in which firms manage their relationships with customers and suppliers (potentially with other important organisations, e.g. trade associations), because they are the basis for exchanging resources and information, which is fundamentally important for competing in the market place. As such firms ‘network’ to get access to exclusive information, mobilise resources amongst relationships, reach new opportunities and manoeuvre themselves into a desired network position. Thus, firms need a sound base of web of relationships to provide them the access to the desire information and resources.

There exist several concepts aiming at capturing organisational network management, ranging from conceptual work to empirical study, which are shown in **Table 1**. Network competence and network capabilities are two concepts that are developed to capture the extent to which how well an organisation is qualified to manage the web of direct relationships. They are seen as organisational characteristics. Networking capability and networking abilities look at how small entrepreneurial firms develop some sort of routines within their networks to achieve their business ambitions. They are seen as entrepreneurial owners’ political skill. The concepts of embeddedness and connectedness focus primarily on the usage of strong ties in order to grow the business or facilitate the cooperation amongst network members. We argue that organisational networking behaviours need to be treated as actions towards direct and indirect counterparts at a collective organisational level. The reason being is that behaviours are derived from the goals (purposes) an organisation endeavours to achieve, and thus these purposeful actions are planned and acted based on organisational collective decision making. We are particularly interested in organisational networking behaviours which firms employ to serve specific purposes, the essence of which are different from the existing concepts in two ways. Firstly, these networking behaviours are

not characteristics or qualifications of a firm. Instead, they are routines/practices/activities that are developed to allow firms to utilise the web of direct and indirect relationships. Secondly, they are not purely for managing web of relationship, nor reconfiguring resources. Instead, they could utilise different types of relationships based on their network position to serve various purposes depending on firms' assessment on available/potential resources that are linked to their counterparts. These purpose-led behaviours can be defined as *the routines/practices/activities that firms employ to make sense of and capitalize on their networks of direct and indirect relationships.*

Table 1 Existing network constructs

Construct	Definition	Dimension(s)	Theoretical Perspective(s)	Unit of analysis
Network competence (Ritter, 1999; Ritter, 2000; Ritter and Gemünden, 2003)	The degree of network management task execution and the degree of network management qualification possessed by the people handling a company's relationships	<ul style="list-style-type: none"> • Task execution • Relationship specific • Cross relational • Qualification • Specialist • Social 	Industrial network perspective + Competence-based	Firm
Network capabilities (Walter <i>et al.</i> , 2006)	The abilities to initiate, maintain, and utilise relationships with various external partners.	<ul style="list-style-type: none"> • Coordination • Relational skills • Partner knowledge • Internal communication Adopted from (Kale <i>et al.</i> , 2002)	Dynamic capabilities	Firm
Networking capability (Mort and Weerawardena, 2006)	The capacity of the firm to develop a purposeful set of routines within its networks, resulting in the generation of new resource configurations and the firm's capacity to integrate, reconfigure, gain and release resource combinations.	<ul style="list-style-type: none"> • Resource configuration <ol style="list-style-type: none"> 1. Build 2. Reconfigure 3. Add 4. Delete 	Dynamic capabilities	Firm
Networking abilities (Äyväri and Jyrämä, 2007)	The ability and willingness of craft entrepreneurs to act in manifold multi-actor nets	<ul style="list-style-type: none"> • Abilities needed in establishing relationships <ol style="list-style-type: none"> 1. Confidence in networks as a system 2. Visioning ability 3. An ability to identify the needs of one's own firm and inform others about those needs 4. Contact-seeking ability 5. An ability to utilise one's own and present partners' contacts to identify potential new partners <ul style="list-style-type: none"> • Abilities needed in maintaining relationships and nets <ol style="list-style-type: none"> 1. An ability to take the interests of business partners into consideration 2. Social skills 3. An ability to share knowledge and 	Industrial network perspective	Firm (owner)

		<p>accept and utilise others' knowledge</p> <ol style="list-style-type: none"> 4. A customer-oriented product modification and tailoring ability 5. An ability to manage time in order to reserve enough time to nurture relationships 		
Connectedness (Anderson <i>et al.</i> , 1994)	The consideration of the interdependencies that exist between firms doing business with one another and the resultant need for cooperation.	<ol style="list-style-type: none"> 1. Anticipated constructive effects on network identity 2. Anticipated deleterious effects on network identity 	Resource dependence theory	Focal firm in a focal relationship
Embeddedness (Granovetter, 1985; Granovetter, 2005; Uzzi, 1996; Uzzi, 1997; Uzzi and Gillespie, 2002)	The extent to which economic action is linked to or depends on action or institutions that is non-economic in content, goals or processes.	<ul style="list-style-type: none"> • The usage of embedded ties to connect to a network 	Social exchange theory	Relationship (tie)

RESEARCH METHOD

This study adopts a qualitative approach, using a semi-structured interview method. The interviews were carried out with aid of an interview guide (Kvale, 1983). The interview questions (with probing questions) were developed with the research questions in mind (Kvale, 2007). Therefore, the interview guide evolved as the study progressed and was modified accordingly following the outcome of each interview to ensure the appropriateness to the topic, thereby increasing the internal validity of the interview (King, 2004).

Since organisational networking behaviour is the means to efficiently and effectively utilise and mobilise internal and external resources by exploiting the web of direct and indirect relationships, the informants have to be those who have an overall vision of organisational strategic decisions towards their counterparts. In most cases at least two respondents from each company were recruited in order to get a wider perspective of how they capitalise on their network context. There was one instance where one interviewee provided a saturated view of their networking behaviours, and therefore no more interview was required of that organisation. There were also instances where the organisation is part of an amalgamation of groups of companies. To get a wider perspective, we then decided to recruit more than two participants. Multiple interviews from the same organisation can be compared and cross-validated. Depending on the position of the interviewee, different views can be obtained since they might involve in different activities with their partners. Therefore, executive managers, i.e. managing directors, marketing directors, sales directors, and/or supply chain directors were appropriate for participants in this study.

The manufacturing sector in the UK is chosen as our research setting. Given the strong challenge from emerging countries with a lower-cost labour offering, the manufacturing sector in the UK has shrunk dramatically. As these emerging countries now are fast moving up the value chain by enhancing their technological capacity, manufacturers in the UK have to differentiate their offerings to be able to survive, as do the manufacturers in other developed countries. Therefore, it is an appropriate setting to research in, because these manufacturers would need to constantly seek opportunities to innovate and expand (or try to maintain the same level of) their business scale by utilising their web of relationships and the accompanied resources.

Manufacturing firms in the UK across different sectors are included to form a sampling frame. The list of potential participate firms are gathered from Fame Database (UK and Irish financial company information and business intelligence), which are further filtered out those that have less than 25 employees. These manufacturing firms within different sectors cut across different level of technological and competitive intensity. This allowed us to gain a wide range of insights regarding how they view their network context and what strategies they employ to capitalise on their web of relationships under certain technological and competitive strength.

The potential participants were identified and sent a research participate invitation by email, which detailed the purpose of the study, assured potential respondents about confidentiality, and asked for their participation in this research. A reminder was sent to those who had not replied to the invitation after two weeks.

An agreed date for the interview was scheduled with each participant who confirmed his/her participation. Nearing each interview the participant was contacted via e-mail with a briefing letter detailed the time and the procedure of the interview. It was stated that a tape

recorder would be used during the interview, and that the recording would only be accessed by the researchers for research purposes. It also stated that the participant had the right to withdraw from the study at any point of time.

During the interview the participant was first briefed about the study, the procedure of the interview, the ethics issues (the use of a tape recorder, the handling of the recording, and the usage of collected data), which were stated in the pre-interview communication document sent earlier. The researcher paid particular attention to explaining how the form of information given by the participant might be presented in the dissertation. The participants were told that their names and that of their company would be anonymous, should the conversations be quoted in the dissertation. After the researcher was given the consent from the participant (a consent form was signed by the interviewee), the interview then started and was recorded by a tape recorder with the exception of one company that has a policy to prevent us from using it.

The interview guide was used during the interview to aid the researcher during the interview. However, the nature, the wordings, and the order of the questions were adjusted accordingly to suit the scenario of the interview. After each interview, the interview guide was modified accordingly (King, 2004), such as deleting incomprehensible questions, adding probes and new questions, modifying wordings, etc.

After the interview the participant was sent a letter to acknowledge their time and valuable input to this study. The conversations between the interviewer and the interviewee in the recording were then transcribed verbatim (without retaining words for the level of linguistic analysis) for subsequent data analysis.

The number of participant companies was not a pre-set goal. The sample size was determined by our judgement on whether we had reached “a point of saturation”, where very few novel insights emerge (Kvale, 2007, p. 44). There were 15 companies participating in this study, giving a total of 31 participants who were interviewed at their establishments across different regions of the U.K. (see **Appendix A** for the profile of the interviewees)

Content analysis is used to analyse the data. Coding is a key feature in content analysis, which was first introduced in *grounded theory*, a research design to quantitative research developed by Glaser and Strauss (1967). In content analysis, the researcher can give words, sentences, and paragraphs meaning, and then codes the meaningful text into various categories, which can be quantified as to how frequently specific themes appear in a text (Kvale, 2007). The categorisations can be made before analysing the data or emerging categorisations can be created ad hoc. This gives a study in an under-developed research area an advantage of being flexible in combining the existing developed concepts from the literature and the emerging concepts from the empirical work.

NVivo (version 8), a qualitative data analysis programme, is used as an aid of categorising huge amount of text into meaningful themes in a systematic manner. It allows a researcher to code the data (i.e. text, images, etc.) into categories, which might be in a hierarchical form or unrelated themes. It also makes quantifying qualitative data easier, such as the function of counting the frequency of a certain word, a certain code, etc., and it provides a cross comparison of the references amongst attributes of the cases. For instance, a researcher can easily see whether the themes that appear across different sizes of the companies are different or of a similar pattern. NVivo is a highly versatile software tool for analysing quantitative data, and it is suited to the purpose of what this study aims to achieve.

DATA ANALYSIS AND RESEARCH RESULTS

The transcribed data was analysed to identify different types of organisational networking behaviours based on their objectives. The themes identified are grouped into four sets of behaviours that firms employ to fulfil specific goals. They are *information acquisition, opportunity enabling, strong-tie-approach, and weak-tie-approach resource mobilisation*. Ford *et al.* (2003) suggest that networking help firms cope with three network paradoxes, which are the constraints of network, management of interactions with their counterparts, and control and influence in network management. This framework emphasises greatly on managing interactions in relationships, but it does not provide by which means of networking can help firms achieve what they set out to do from networking, as they are reluctant to causally link networking to any outcome. From our interviewees' viewpoint, they network to achieve certain anticipated outcomes, and because of this view, we realised that these networking behaviours are conscious and purposeful. Although this framework has helped us understand the overarching motivations behind these networking behaviours, we attempt to find out different types of these behaviours. We feel that by categorising them based on their purposes would produce a more fine-grained system, which will allow us to sympathise and contrast the findings with the wider network literature. This is by no means suggesting that these behaviours are causally linked to successful outcomes, which needs to be more rigorously tested, and that is out of the scope of this paper.

The discussion will be organised around these four categories (see **Appendix B** for the matrix produced by the content analysis).

INFORMATION ACQUISITION

Information here can take many different forms. The desired information could be related to competitors, potential suppliers and customers, technological development, gaps in the market, local knowledge of a new market, etc., all of which could be crucial for firms to sustain and grow their business. It might not directly impact upon sales figure, but it is important for firms to obtain a whole range of information to make an informed decision and develop and improve their offerings. Subsequently, it will enhance the chance of performing better against competitors. One manager explained:

"... the information, that you bring back in the organisation, that is really key to our business. It's not about the sales or the profit. It's about the information. And then it's up to us what we do with that information."

One prominent theme we found in the data is the knowledge of the markets where the focal firms wish to pursue. Globalisation means that firms could market their offerings in various countries that can be very different from the UK where they are established. It is vital for a firm to establish an effective 'information hub' locally, from which it can enquire reliable information regarding market dynamics and in some instances, a firm needs to keep abreast of local governmental regulations that could greatly affect how its offerings are made in order to comply with those regulations. Depending on the nature of the information required, firms need to establish different contacts in the local market. For instance, a participant firm producing equipment that emits some form of carbon-dioxide would need to know local regulations regarding the standard of the emission, and more importantly, how these regulations will be changed in the future. This is a vital piece of information, because it would affect how and when the firm develops the appropriate offerings and to whom they can sell as one manager mentioned:

“...we have quite a sophisticated and comprehensive group of people within the business that would work with local agencies whether it's the European commission or, in North America, it could be the Senate.”

We identified three important sources of information from a firm's perspective. First, direct interacting partners, such as customers and suppliers, which are the first point of call, when firms need to make sense of their current position in the market (i.e. against its competitors). The mutual understanding and trust between two parties means that the information is shared on the basis of the experience of their past dealings. As such, the information is often formulated to suit the circumstances of their relationship. Secondly, informal contacts or as one of the managers termed them “unsolicited contacts”, are the other important source for information. As they are not in the close proximity of the focal firm, they often bring about novel information/knowledge. They could also transfer knowledge from their own business sphere to the focal firm through the infrequent interactions. Lastly, firms can gather a wide range of information from public domain; such as trade shows, trade associations, committee meetings, seminars, publications (e.g. trade magazines), etc.

Customers are a great source of information according to several managers. They can provide insights into focal firm's competitors without breaching competition law. Although they cannot disclose sensitive information, such as certain details of the dealings, they can offer insights into why the competitor in question is doing well in the market from a customer's perspective. It is valuable since information regarding competitors is difficult to obtain in most cases. One manager said:

“So what we did is I came up with a design brief two years ago of a product that would meet the low end of the market, because I knew we had a competitor there, came up with a design specification after speaking to various customers...And it is probably the third bestselling product in the last two years.”

Customers also provide their views of the market dynamics, which can foster innovation within the focal firm as one manager explained:

“They'll (customers will) often come to us and say we've seen another opportunity... we get a lot of our ideas through the customer base.”

The multitude of channels where firms can obtain valuable information means that they need to identify these sources, and establish relationships with them in order to form the base for (exclusive or desired) information sharing. The findings from our qualitative work corroborate with the strong and weak relationship argument in economic sociology (Granovetter, 1973; 1985; 2005; Uzzi, 1996; 1997). Information is one of the most important resources from 'social capital' available to firms in their embedded network context. Burt (2000) argues that social structure (i.e. network position) is part of social capital which provides firms the competitive advantages they wish to pursue. In other words, based on a focal firm's web of direct and indirect relationships, various types of information can be obtained by interacting with important counterparts, informal contacts (who are not necessarily trading with the focal firm) and public domain. Although novel information can be brought about by a newly formed relationship, but the information sharing governed by trust in established relationships can be the important mechanism for firms to realising the opportunities derived from the novel information. Therefore, a combination of strong and weak relationships could place firms in a strategic position where they could benefit from rich information. Interactions are obviously important for obtaining information from a perspective of an interaction approach, but economic sociology in this context has enriched the

aspect of information acquisition by bringing in the strong-weak relationship argument and the strategic importance of network structure.

OPPORTUNITY ENABLING

We identified three types of behaviours in this category. First, firms' tendency to network with different types of organisations within or outside of the industry was observed as "go out there and speak to people", as one manager put it. Note that the channel from which firms sense and realise the opportunities here has been mentioned in the previous category. The difference is that the interactions are not for obtaining information, but to reap the benefits of being exposed to a wide range of familiar and unfamiliar organisations, which could be their potential suppliers and customers. Through attending seminars, conferences, and exhibitions, and even just keeping in contact with "unsolicited contacts", firms can sense and seize the opportunities. These managers are in agreement that attending these events sometimes are not as useful as they should have been, but they would still make the effort to go and budget for them. The reason being is that they would never know whether some opportunities might emerge in an event. If they do not attend, the opportunities would be simply missed, or in a worse scenario, be snapped up by their competitors as one manager said:

"Now, you don't always find yourself as lucky as that in every networking event, but that is always the question that I always ask myself, if I don't go, what am I missing out on?"

The types of opportunities vary. For instance, there might be potential buyers who are looking for certain offerings, potential suppliers who hold novel technologies that can be acquired to produce new form of offerings, or a referral could provide an opportunity for a firm to get in contact with potential customers, etc. These events are a fertile ground for firms to get together and sense the chance of collaboration, which might give them the edge against their competitors, if the collaboration can produce novel offerings. One participant firm, who is in a mature and traditional manufacturing industry, has recently got involved in projects with companies from very different industries. It all began from an exhibition where they first met and spoke about the possibility of a collaboration that would benefit both parties. The manager explained:

"...where a chance meeting got us into the footwear industry or the potential to get into the footwear industry so it's hard to say where these things come from."

Secondly, joining trade association and industrial-specific committee is the other way of sensing the opportunity and possibly through these organisations firms can influence demand by lobbying relevant legislative bodies to shape. However, this type of tactic is very specific to certain industries where legislations are heavily influential to the way they produce their offerings

Thirdly, firms can also interact with various relevant organisations to try to disseminate what they are capable of doing and try to drive the demand by building up their reputation in the network. We have termed this set of behaviours 'network identity management'. The concept of network identity originated from Håkansson and Johanson (1988). They define network identity as "the views—both inside and outside the firm—about the firm's role and position in relation to other firms in the industrial network" (p. 373). Through interactions with various parties, firms can develop and build up the identity in the network. Our view is that a firm's network identity can be managed in the sense that it can try to establish connection with highly reputable suppliers or customers in the hope that other network members recognise the ability of the focal firm. This is learnt from one of the participant company. One manager told us that having been working with big players in the automotive industry has helped them get business easier due to the reputation brought about by

continually working well with these highly reputable companies. One manager also mentioned:

“There’re other situations where we’ve worked for 10/15/20 years trying to get into a company that has a very strong brand that currently doesn’t use any of our product but we see it as strategically the right thing to do and that may take us many many years to get to that point but we don’t give up. We continue to-, you know, to try and solder those relationships and produce product that we think will be of interest to them.”

In this instance, this particular firm could envisage the benefit of working with this customer, and because of this the focal firm developed their offerings differently to suit customer needs. There is a level of making this customer aware of its capability in the short run as well as making itself attractive to other potential customers in the field in the longer run. As the manager pointed out, it is a strategic decision to keep pursuing this customer since without the vision of where the firm is now and where it wants to be in the network, this decision would not have been made. Therefore, network identity management is a long-term strategic planning practice that needs to be continually nurtured. Although network identity has been defined as a self-perceived attractiveness to other network members, firms can manage its identity by strategically interact with certain counterparts and make them aware of its capability.

STRONG-TIE-APPROACH RESOURCE MOBILISATION

Strong relationships as mentioned in previous section are relationships that are characterised by high level of trust, thus they foster exchange behaviours based on mutual understanding, which is developed over time. A well established relationship may enable both parties to mobilise part of their counterparts’ resources³, as well as the resources from elsewhere (e.g. customer’s customer, customer’s supplier or supplier’s supplier, etc.) that are attached to their counterparts. The pre-requisite for this to happen is a high level of trust between two parties. This aspect of resource mobilisation is particularly important as a mechanism to solve an identified problem which requires multiple parties’ involvement in order to come up with a solution that would warrant an on-going cooperation (Ford *et al.*, 2001). One manager explained:

“If they aren’t happy with the trays that the supplier is using, then somebody like Customer A will tend to put us in touch with the customer (Customer A’s supplier) and then we can come up with a different type of tray.”

There are three different types of resource mobilisation in this category. First, resource mobilisation takes place in a triad situation where a focal firm has to coordinate in between its supplier and customer and try to marry its supplier’s capability with its own in order to provide offering that meets customer’s need. Therefore, the supplier does not merely provide raw material or a component to go into a firm’s offering, its involvement in the process of offering development means that the synergy produced by the cooperation cannot be imitated by any competitors easily as one manager stressed:

“...a lot of our products are only successful as a result of the innovation that the suppliers bring, the added value that the supplier brings.”

This type of behaviour is similar to those described in Smith and Laage-Hellman (1992). They argue that firms can either pool resources in an existing or new relationship. However, we found that to pool the resources, firms need to build a certain level of trust and mutual

³Ford *et al.* (2003) define resources as “existing technology or know-how, offerings, facilities or an organizational unit”, which captures the essence of resources in this study.

understand if they pool the resources in a newly formed relationship. In other words, strong relationships are better for this tactic. This view is consistent with strong and weak relationship argument as trust is the catalyst for successful resource pooling.

Secondly, to mobilise the pool of resources require firms' investment in relationships, which means that firms have to decide as to whether the investment should be continued or at what level the investment should be kept. Firms need to assess the pool of resources that are linked with a particular counterpart, and envisage how the utility of those resources fits in its future development of their offerings. The level of investment could obviously work in two ways, to reduce or to increase based on the assessment of those resources and match them with the future development. One manager explained how they decided to increase relationship investment with a supplier:

"We want to move-, let's say we want to move into some of the emerging countries and markets that are becoming available to us and we see that, for example, the products that that market demands or that country demands we don't currently have but we know that a supplier is working in another part of the world and has that capability, we would move them into a more strategic partnership arrangement for a given period in a given market."

Thirdly, it is also important for firms to utilise resource synergies they gain from working with similar type of counterparts as the learning can be transferred across other relationships. It means that firms could manage these relationships in a similar manner, which forms an efficient and effective routines/practices for managing similar type of relationships. One manager mentioned that:

"We know the synergies between some of these organisations and our product planning and how that aligns and down-, right down to some of the more regional smaller customers."

Strong relationships play a critical part in mobilising resources around a focal firm. Network is seen rich in resources (and information), but how firms can obtain and mobilise them have not been discussed much in the literature. Interactions play an important role in mobilising resources, but it is the mutual understanding and trust of strong relationships serve as the foundation that enables firms to do so. Resource mobilisation is not confined in a relationship between two parties, but multiple parties that form the "resource constellation"(Ford *et al.*, 2006, p. 34).

WEAK-TIE-APPROACH RESOURCE MOBILISATION

Unlike strong ties, weak relationships are characterised with lower level of trust as the interactions between two parties are not as frequent as strong relationships and they keep each other at arm's length. However, they are important in some instances where firms need to quickly penetrate a new market or obtain novel knowledge in a new area, which cannot be obtained through strong ties. Networking is partly about changing the formation of the existing relationships in the network, which involves introducing new relationships by ways of either utilising existing relationships, or making links with the new counterparts (Smith and Laage-Hellman, 1992).

There are three ways of utilising weak relationships in a focal firm's network depending on what it wishes to achieve. They are bypassing-flanking, bridging, and bypassing-avoidance, which are drawn from Smith and Laage-Hellman (1992). They propose five transformation patterns of changing network formation, whereas we have identified three in the data, one of which is in strong-tie-approach resource mobilisation category. We adopt the terms they use to describe these networking behaviours. First, firms sometimes need to make connection and interact with peripheral, but relevant key parties surrounding existing/potential customers. Although these parties do not contribute to the sale of their offerings directly, the novel

information and the possibility of new resource combination from them could be crucial for firms. We term this way of networking ‘bypassing–flanking’ as firms can go past their direct customers and try to interact with relevant parties surrounding them in order to drive the demand on their offerings. The final aim of this tactic is still to try to be closer to the customers (flanking). One manager stressed that:

“They know what they specify, installations on projects, so they know about which projects are likely to happen or are happening.”

Secondly, the other bypassing networking behaviours are observed, where firms would identify their direct competitors’ customers, and try to approach them in order to expand the business. This is called bypassing–avoidance networking behaviours. This situation happens when firms enter a new market where their competitors have already operated and established a network of customer base. It could also happen in their existing market where new customers are rare, and the only way of growing the business is by “grabbing competitors’ market share”.

Thirdly, when going to a new foreign market, the language barrier has been said by several managers as one of the issues that stand in the way of establishing relationships with local customers and other organisations and it can be solved by using a local distributor or agent. The search for a suitable ‘business partner’ locally can be time-consuming, and it takes various forms of preparation. One manager described the process of choosing a suitable local partner is a “calculative gamble” since it is difficult to foresee how well two parties can work together without being working together before, albeit all the diligent assessment. However, once the relationship is established, the benefit of quickly capitalising on the web of supplier and customer base that the local business partner has is important for penetrating a new market. Through utilising the resources and market-specific expertise the local agent has a firm can establish relationships with potential customers and in some cases with new suppliers much quicker and more effective. We call this way of networking ‘bridging’, where firms identify the best partner locally in order to utilising its established network of relationships and the accompanied rich information and resources. One manager described:

“Once we look to build a relationship up with a supermarket, they will then tell us who their suppliers are and we’ll look to build up relationships with their suppliers. And so therefore we’re always putting new people into the part as regards potential customers.”

DISCUSSION

We have identified four types of organisational networking behaviours by the way in which firms utilise their web of relationships to achieve different goals. These purposeful behaviours can be categorised into: information acquisition, opportunity enabling, strong-tie-approach, and weak-tie-approach resource mobilisation. By adopting a network view, this study provides insights into how firms operating in business-to-business markets exploit their webs of relationships with multitude of counterparts. We did not restrict ourselves to one school of thoughts. Instead, the strong and weak relationship argument originated from economic sociology and the interaction approach both provide the framework for analysing the data. We believe this approach has enabled us to broaden the scope of networking behaviours identified in this study. We organise the discussion around the four types of networking behaviours and will conclude with the contribution of this study and the wider implications for future research.

First, information acquisition is an important aspect of business development. Although how firms utilise the information they obtained through networking behaviours is out of the scope of this study, through ‘useful’ information, firms can, for example, sense opportunities and realise them before their competitors. Based on our empirical data, we found that firms are more openly sharing information in well-established relationships, but the novel information very often comes about via different types of counterparts, with which firms do not necessarily have long established relationships. This notes the importance of identifying and keeping a wide range of “information hubs” through constantly interacting with various counterparts, although it might not necessary contribute to the sale directly.

Secondly, opportunity enabling behaviours are the way in which firms constantly have a strong desire to “go out there and speak to people”, whether it be looking out for new technologies, potential customers and suppliers, lobbying, all of which require proactive interactions with various counterparts. As noted by several managers, the effectiveness of these networking events cannot be predicted easily, but the strong tendency to network with various counterparts is essential for firms that are constantly trying to get hold of important information and to sense and seize opportunities to help them make informed decisions. Not only do firms seek opportunities, but create them. By interacting with relevant counterparts (e.g. potential customers, important parties surrounding customers, etc.) firms can strategically disseminate their self-perceived network identity to them, and make them aware of their capability. This has important implication, as firms would greatly benefit from their reputation in the industry as we have learnt in the interviews.

Thirdly, we also observed that the effectiveness of certain networking behaviours, particularly those in strong-tie-approach resource mobilisation, heavily rely on the quality of the relationships and whether or not these relationships characterised with high level of trust. In other words, to be able to mobilise resources surrounding a focal relationship requires high level of trust and cooperation in that relationship. This ability is critical for solving problems and improving offerings, particularly in technology-intensive situations. By mobilising resources, such as technologies or know-how from different parties, a focal firm’s offerings can be developed to differentiate from competitors’. Without the backing of strong relationships, the mobilisation of such ‘sticky’ resources to form joint problem-solving mechanism would be difficult (Uzzi, 1996). Therefore, not only does a good relationship helps sustain repeating transactions, but also brings about rich resources around that focal relationship. However, it requires firms to sense and realise this potential opportunity and mobilise the resources to respond to the market and innovate faster, which increases competitiveness against their competitors.

Lastly, weak-tie-approach resource mobilisation has shown to be effective in some instances, particularly where firms need to penetrate a new market. Relationships that are at arm’s length or newly formed could link firms to those indirect relationships, hence potentially a whole new set of resources. The novel information, technologies and business opportunities are embedded in the other side of this relationship, and through its linkage with its new counterpart, the bridging relationship, a firm is able to quickly form relationships with others. In some cases, this can be foreseen. Firms are able to assess, for instance, what kind of customer base this particular potential business partner holds to determine whether it is the right decision to partner with it.

This study has contributed in three ways. First, from a theoretical perspective, we attempt to look at organisational networking behaviours through the lens of dynamic capabilities approach since these strategic behaviours are the means by which firms employ to cope with the complexity of the environment and to achieve competitive advantage. On the other hand,

an interaction approach is needed to understand how firms manage the embeddedness and interconnectedness of their web of direct and indirect relationships. Secondly, this study demonstrates the applicability of the well-established strong and weak relationship hypothesis in economic sociology from a firm's perspective. Although it is a well developed concept, a deeper understanding is needed to shed the light on how these two different types of relationships can be used from a firm's perspective as it was originally developed to capture personal relationships (Jack, 2005). We demonstrate that these two types of relationships do have different utility for a firm. Through interactions, these relationships can be exploited to achieve firms' goals. Lastly, by introducing strong and weak relationship concept and some insights generated from this concept (e.g. unique information and opportunities brought about by network structure), this study has enriched the understanding of networking from an interaction perspective. This approach has helped produce a more fine-grain system of organisation networking behaviours. The four types of networking behaviours can provide practitioners operating in business market a guideline for utilising different types of relationships to achieve different outcomes.

This study has its limitations mainly related to the research setting. We chose UK manufacturing sector as our research setting, although we tried to cover as many industries as possible, the coverage is still limited. There is a possibility that other types of networking behaviours are not discovered due to this reason. It is, therefore, a fertile research prospect to look at other research settings, for instance, the industries with high technology intensity, and see how the networking behaviours differ from the ones we have identified. Service industry is arguably very different from the manufacturing industry, which makes it a possible interesting research setting to study firms' networking behaviours. These four types of networking behaviours provide a foundation for future research to explore in what way they contribute to a firm's success.

Appendix A List of interviews

Company UK SIC 2007 description	Latest No of Employees	Turnover (last available year, thousand GBP)	Interviewee title	
A Manufacture of other fabricated metal products n.e.c.	296	153,646	A1	UK Sales Director Commercial
			A2	Head of Purchasing
B Manufacture of medical and dental instruments and supplies	76	10,622	B1	Managing Director
			B2	Operation manager
C Manufacture of engines and turbines, except aircraft, vehicle and cycle engines	3,310	1,373,528	C1	General Manager
			C2	GM - Off Highway Business
			C3	Purchasing GM - Europe
D Manufacture of tools	-	-	D1	Commercial Director
			D2	General Manager
E Manufacture of mattresses	211	24,834	E1	Sales Director
			E2	Manufacturing Director
F Manufacture of other plastic products	352	61,180	F1	Sales and Marketing Director
			F2	Managing Director
G Cold drawing of bars	144	27,492	G1	Commercial Manager
			G2	Marketing and Sales director
H Manufacture of wallpaper	48	37,076	H1	Technical Manager
			H2	Purchasing Manager
I Machining	208	18,406	I1	Business Development Manager
			I2	Chief Executive
J Manufacture of plastics in primary forms	355	31,058	J1	Sales & Engineering Director
			J2	MPL (material planning and logistics) Director
K Manufacture of pumps	340	44,107	K1	Group Managing Director
			K2	European Sales Manager
L Other manufacturing n.e.c.	192	34,547	L1	Managing Director
			L2	Key account director
M Manufacture of other articles of paper and paperboard n.e.c.	2,982	137,293	M1	Supply Chain Director
			M2	International Marketing Director
N Manufacture of glues	1,207	192,300	N1	Business Development Director
			N2	Head of Global Supply Chain
			N3	Director of European Sales
O Other processing and preserving of fruit and vegetables	537	107,872	O1	Supply Chain Director

Appendix B Matrix of content analysis

Company	A		B		C			D		E		F		G		H		I		J		K		L		M			N			O
Interviewee	1	2	1	2	1	2	3	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	3	1	
A: Information Acquisition: The activities that firms employ to acquire necessary/desired information (from direct interacting counterparts, informal contacts and public domain.) for helping make informed decisions.																																
A1: Important parties	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	0	0	1	0	1	1	1	1	1	1	0	1	1	1	1	0	
A2: Informal contacts	1	1	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	1	0	0	0	1	0	0	1	0	
A3: Public domain	1	0	1	1	0	1	1	1	0	1	0	0	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	
B: Opportunity Enabling: The activities that firms employ to sense the opportunities and build their reputation by consciously interacting with relevant parties in their business sphere.																																
B1: Intending to network	1	1	1	0	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	
B2: Lobbying	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
B3: Network identity management	1	1	1	0	1	1	1	0	1	1	1	1	0	0	1	1	0	1	1	1	0	0	1	0	1	0	0	1	1	1	1	
C: Strong-tie-approach Resource Mobilisation: The activities that firms employ to mobilise resources amongst their direct/established relationships.																																
C1: Adjusting investment according to the anticipated effects	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	0	0	1	0	0	1	0	1	1	1	0	0	1	0	0	0	
C2: Resource synergy amongst customers	0	0	1	0	0	1	1	0	0	1	0	0	0	0	1	0	0	0	0	1	0	1	0	1	0	1	0	0	1	0	0	
C3: Triad coordination	1	0	1	1	1	1	1	1	0	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	0	1	
D: Weak-tie-approach Resource Mobilisation: The activities that firms employ to mobilise resources that are linked to their indirect/new relationships.																																
D1: bridging weak ties	0	0	1	0	1	1	1	1	1	1	1	1	0	0	1	0	0	1	0	0	0	1	1	1	0	0	1	0	1	1	0	
D2: bypassing–flanking	1	1	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	0	0	
D3: bypassing–avoidance	0	0	0	0	0	0	0	0	1	1	0	0	1	1	1	0	0	0	0	0	0	1	1	0	0	1	0	0	0	1	1	

*0 denotes the absence of the theme in the interview, where as 1 denotes the presence of the theme in the interview.

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