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**Relationship and Network Approach to Innovation and Capabilities Building in Small and
Medium-Sized UK Organic Food and Drink Suppliers: A Literature Review**

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Abstract

Both business and consumer markets of food and drink are increasingly changing, concomitant with changing consumer habits and lifestyles. Particularly in industrialised countries, there has been a tremendous growth in consumer interest for organic food in the last fifteen years, largely driven by the need for healthy food. These market changes have implications for the way firms in the food and drink industry conduct their business. Nevertheless, unlike large firms, small suppliers tend to be constrained in terms of innovations and capabilities, for instance to enable them keep pace with market changes. Based on the literature review, this paper develops a framework that suggests that, market-driven innovations may be developed and implemented through augmentation of small and medium-sized suppliers' (SMEs) own capabilities with those of their larger customers. This consequently would enable SMEs to keep pace with market changes and hence sustain their survival.

Key words: Business relationships and networks, food and drink, market changes, innovations, capabilities.

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Introduction

The role and importance of inter-organisational relationships and networks on a firm's competitive strength and performance have increasingly received attention over the recent years. It is more and more common for firms to act in collaboration with other firms, whether suppliers, customers, or competitors and with other non-commercial knowledge-generating organisations (Coombs and Metcalfe, 2000 pp.209). A firm's ability to initiate, handle, use and terminate inter-organisational relations is essential in the current and future world that is characterised by the networked economy. The goals of business relationships and networks include: increasing sales volume or profits, gaining access to new markets, developing innovations (Ritter and Gemunden, 2003) and co-creation of value in general (Forsström, 2005). Business relationships are also important in accessing, designing, and using resources across networks (Gadde and Hakansson, 2008). Business networks are dynamic and constantly evolving as technology develops, as old problems are solved, as new problems emerge and as organisations find new ways of dealing with them with new counterparts (Ford, 2006). Networks are usually characterized by a wide scale, complexity and diversity of interdependent actors that may include consumers, business customers, distributors, suppliers, sub-suppliers, government, institutions, shareholders and other stakeholders (Ford, 2006; Gonzalez-Torre, Adenso-Diaz and Artiba, 2004; Xu et al., 2007). This complexity and diversity illustrates the importance of scope in analysis of business networks. The relationship and network approach delineate the core task of business marketers as that of finding, developing and managing of business relationships within the complex network that surrounds them.

For sustenance and improvement of relationships across business networks especially in an environment characterised by dynamic markets, development and implementation of innovations and building of capabilities are imperative. Innovation contributes to business performance and it's a source of a firm's competitive advantage (Hult, Hurley and Knight, 2004; Palmer, 2004; Traill and Meulenber, 2002) and it is fundamental for survival and growth of enterprises (Francis and Bessant, 2005). There are different innovations that may be adopted, some supply-driven or arising as a response to production forces or rather initiated by supplier (internally-driven) and others demand-driven or arising from market or customer needs (externally-driven) (Miller, 1999 pp.10-11).

Innovation may be achieved through exploitation of a firm's capabilities and network competence. Capabilities are the ability to carry out specific actions (Coombs and Metcalfe, 2000 pp.217). On the other hand, network competence refers to a company-specific ability to handle, use, and exploit inter-organizational relationships (Ritter and Gemunden 2003). In the current business world that is characterised by market dynamism and firms that are engaged in networks of cooperative and competitive relations with other organisations, it is important that firms develop and sustain their capabilities, network competence and innovativeness. However, unlike large firms, small firms tend to be constrained in terms of development and implementation of innovations and capabilities for instance to enable them keep pace with market changes. Large firms generally tend to exhibit more innovative activity than their smaller counterparts, though at times this varies across industries (Acs and Audretsch, 1988). In the organic food and drink industry, markets are increasingly dynamic as consumers increasingly become more health conscious and concerned about the environment and the welfare of animals. In such conditions, it is worth exploring the role of larger customer- small and medium-sized suppliers' (SMEs) relationships and networks alongside development and implementation of innovations and building of capabilities that are essential in responding to market changes.

Purpose and structure of the paper

The purpose of this paper is to assess the extent to which the subject of market-driven innovations and capabilities building in the organic food and drink sector has been studied in the context of business relationships and networks. In summary, we present a literature review on relationship and

network approach to innovation and capabilities building whereby we develop a framework that suggest that improved network competence may enhance the capabilities and innovativeness of SME suppliers through gains from networks. The review focus on the core areas: customer-supplier relationships, capabilities, innovations and market changes in the food and drink sector.

We particularly attempt to address the questions: what is the relevance of relationship and network approach? What is the role of business relationships and networks in building of firms' capabilities? What is the role of business relationships and networks in the development and implementation of innovations? What are the research gaps in regard to market-driven innovations and capabilities building in food and drink sector taking into context the relationship and network approach?

The paper is structured as follows. First an introduction is presented above. Then the theoretical approach or rather a discussion on the relevance of relationship and network approach is presented next. Methodology that is adopted by this study is then described. The theme of capabilities and the role of business relationships and networks on building of capabilities are then discussed. This is followed by a discussion on the theme of innovation and correspondingly the role of business relationships and networks in development and implementation of innovations. The study then identifies market changes in food and drink industry and attempts to examine how a network and relationship approach have been used in addressing these changes. A framework linking innovation and capabilities with market changes in the context of business relationships and networks is then developed and finally the paper presents the conclusions which include suggestions on opportunities for further research.

The relevance of the relationship and network approach

To understand the various market players, different approaches have been used including: consumer behaviour which focuses on values and behavioural motivations of individuals; strategic business which focuses on differential responses of firms to various factors or forces; and the relationship and network approach (Xu et al., 2007). Among them, the relationship and network approach has the advantage of being able to link the other two. It has the strength in the ability to view consumers, businesses and other stakeholders as interdependent actors within a network. It has been commended for its ability in presenting the real world business scenario than the traditional approaches to business marketing including the sales approach, market approach and single purchase approach (Ford, 2006). The relationship and network approach have been widely used in the past (e.g. Ford and Hakansson, 2002; Hakansson and Snehota, 1995; Johnsen and Ford, 2006; Johnsen, 2004).

The relationship and network approach is largely applicable in the context of business-to-business markets rather than consumer marketing. Hague, Hague and Harrison (2008) highlight four factors that make business-to-business markets special and different to consumer markets: the decision making unit is far more complex in business-to-business markets than in consumer markets; business-to-business products and their applications are more complex than consumer products; business-to-business marketers address a much smaller number of customers who are much larger in their consumption of products than is the case in consumer markets; and lastly, personal relationships are of critical importance in business-to-business markets (Hague, Hague and Harrison, 2008). Despite the differences, the common challenge for both business-to-business and consumer marketers is to truly understand their customer needs and to be able to communicate that their products or services really are special in being able to satisfy them (ibid).

Unlike the traditional consumer marketing models that viewed sellers as active actors seeking to approach buying organisations to persuade them to buy products or services and therefore seeing the buyer as passive while the seller was active (Kotler and Armstrong, 1994), the modern models such as the interaction model developed by the Industrial Marketing and Purchasing (IMP) group sees both buyer and seller as active (IMP Group, 1982). There is a marketing paradigm whereby the traditional approach of marketing to customers is replaced by one of cooperation with customers and

suppliers. The IMP network model postulates the core elements of any network as comprising of actors, activities and resources (Hakansson and Snehota, 1995). Accordingly, a relationship is developed as two organisations build up activity links, resource ties and actor bonds and these links, ties and bonds are the substance of business relationships (ibid). A relationship is a contract between two firms that is acknowledged by both parties (Johanson and Mattsson, 1987). This ought to have a mutual orientation, mutual dependence and bonds tying the actors (ibid). A dyadic relationship is just part of a larger whole and it need be understood as part of a network of interdependent relationships (Ford et al., 2003).

The ability of a firm to manage its relationships and its position in business networks is a critical task on which its very existence stands or falls (Ford et al., 2003) and hence the significance of the network competence. Network competence as mentioned in the introduction refers to a company-specific ability to handle, use, and exploit inter-organizational relationships (Ritter and Gemunden, 2003). It may be viewed from two dimensions (Ritter, 2002). The first is task executions which generally refer to tasks to maintain a single relationship and this include initiation, exchange and coordination. The second dimension is cross-relational tasks which refer to tasks to maintain the network of connected relations as a whole and this includes planning, organizing, staffing and controlling. Just as market orientation and firm performance are strongly correlated (Wilkinson, 2000), so are the market orientation and network competence (Ritter, 2002). The antecedents that positively impact on network competence include: access to resources comprising of financial, physical, personnel and informational mainly about buying and selling markets and about partners; network orientation of human resource management in terms of personnel selection, development and assessment; integration of communication structure; and openness of corporate culture - adhocracy and hierarchy (Ritter and Gemunden, 2003).

The contribution of formal and informal networks is consistently cited as a key driver of innovation (Mahroum et al., 2007). Such networks include both peer-to-peer and business-to-business support agencies, and owners and managers of businesses. In connection to value co-creation (Forsström, 2005), business relationships and networks are important to firms in many ways including: sharing and discussion of ideas; shared learning around addressing problems and constraints to growth; supply chain development; and addressing the negative impact of isolation (Mahroum et al., 2007).

Along the marketing channel, usually the business-to-business marketing takes place earlier in the upstream while business-to-consumer marketing takes place further downstream. The tendency would therefore be for the customer firms to pass on the consumer demands or the market changes to supplier firms. Consumer demands are dynamic and this calls for continuous innovation along the customer-supplier dyad. This is an enormous challenge particularly to the SME suppliers who may experience myriad of constraints. We therefore proceed in the next section where we describe the methodology that we adopted in investigating largely on how these constraints may be overcome.

Methodology

The methodology adopted by this study is a literature review. This entailed identifying and evaluating secondary data from academic journals, reports, theses, policy documents and relevant websites. Previous studies pertinent to issues of business relationships and networks, capabilities, innovations and market changes in organic food and drink were sought. Key word searches included *innovations, building capabilities, innovativeness, business networks, business relationships and organic food and drink*. The data used is mainly from published articles in international journals, an indication of the robustness and quality of the data. They were assessed in terms of recency and relevance to the objective of this literature review of understanding how improved network competence may enhance the development and implementation of market driven innovations and building of capabilities in SME suppliers through gains from networks.

Capabilities

As mentioned before, capabilities are the ability to carry out specific actions (Coombs and Metcalfe, 2000 pp.217). It encapsulates both explicit processes and tacit elements such as know-how and leadership that are embedded in processes. There is no definite categorization of capabilities. They have been classified under different categories including dynamic capabilities, capabilities (generic) and core capabilities. Intertwined in these capabilities are interaction capabilities and these may be classified into four categories: human, technological, managerial systems and cultural (Johnsen and Ford, 2006). In understanding capabilities, it is important not to confuse them with resources. While resources are transferable input factors that are controlled by a firm and that are converted into outputs using a wide range of firm assets and bonding mechanisms (Amit, Paul and Schoemaker, 1993), capabilities are invisible assets that are firm-specific and developed over time through complex interactions among the firm's resources (Teece, Pisano and Shuen, 1997). Analogously, while inputs or resources such as capital and labour are accessible by all firms at prevailing factor prices, capabilities reflect the deployment of resources (Makadok, 2001). Capability differences between firms are reflected in productivity differences between them, and within firms in productivity improvement over time (Ethiraj et al., 2005).

A few studies have identified particular industry specific capabilities. Ethiraj (2005) identified client specific capabilities and project management capabilities in software industry. In the food and agribusiness sector, Traill and Meulenber (2002) identified the following competences which we argue are capabilities; brand building and management capabilities, market 'intelligence' capabilities, new product development capabilities and process innovation capabilities. According to Sher and Lee (2004) in their study aligned to information technology, the capabilities that are needed in a volatile (dynamic) world include: adoption, integration, and reconfiguration of endogenous and exogenous organizational skills, resources, and functions to meet change. 'Dynamic' in this context refers to the concurrency of organizational renewal with environmental change. The study showed that management of both endogenous and exogenous knowledge significantly influence the enhancement of dynamic capabilities. The meagre literature available on industry specific capabilities suggests an opportunity for further research in this area.

The role of business relationships and networks on building of firms' capabilities

Interdependence of capabilities between firms that are in a relationship is an important managerial issue as it influences the design and handling of activities as well as the control and utilisation of resources (Johnsen, 2005 pp.79). There is a need for increased understanding of interaction capabilities so as to enable firms to relate with other organisations more successfully and thereby contribute to their own knowledge as well as to that of their relationships (Johnsen and Ford, 2006).

A few studies have attempted to demonstrate how business relationships and networks contribute to building of firms' capabilities. Ethiraj (2005) found that software firms can build their client specific capabilities by repeatedly interacting with a given client across multiple projects over time. Long-term relationships and repeated interactions with clients yielded client-specific learning that had a positive effect on both revenues and costs. On the other hand, project specific capabilities were shown to be acquired through deliberate and persistent investment in infrastructure and training to improving the firm's software development processes. The project specific capabilities included software design and building capabilities, effort estimation and management, and schedule estimation and management capabilities. The study acknowledges that capabilities are context-specific and need to be conceptualized and studied accordingly. This implies that the capabilities that are relevant in the software industry could be different from those that are relevant in another industry such as food and drink.

In the food and agribusiness sector, Traill and Meulenbergh (2002) identified four competences which based on the way they are discussed we argue are capabilities. These are brand building and management capabilities, market ‘intelligence’ capabilities, new product development capabilities and process innovation capabilities. Analogously, firms try to gain a competitive advantage by focusing on marketing, on new product development or on process innovation. Specifically, the leading sources of competitive advantage in order of decreasing importance were found to comprise of high quality product, efficiency in production, new product development, strong marketing and sales organization, competitive pricing, established relationships with retailers, high quality raw materials, highly motivated workforce, strong brand image, knowledge of customers’ needs and process innovation (ibid). From a relationship and network approach perspective, these sources may be considered to be interrelated. For instance an established relationship with retail customers could enhance product quality as well as new product development.

Johnsen and Ford (2006) in their study on dyadic relationship between larger customers and small suppliers, acknowledge the need for research in exploration of the interplay between relationships, networks and capabilities. They highlight the need for further research that would examine both the larger customer and smaller supplier perspectives on capability development. Having discussed capabilities in the context of business relationships and networks, the next section moves to discuss innovation and its typology and as well as the role of business relationships and networks on development and implementation of innovations.

Innovation

To keep pace with market changes, it is important that firms continuously innovated in response to the market changes. Innovation has been defined differently by different authors (e.g. DTI, 1994; Holt, 1983; Knight, 1967; Saren, 1984; Schumpeter, 1947; Akrich, Callon and Latour, 2002a) and expressed under different typologies (Table 1). Some authors consider innovation as a process of developing a new item (e.g. Holt, 1983), others as a process of adopting a new item (e.g. Knight, 1967; Rogers, 1983), and still others as the new item itself (e.g. Gobeli and Brown, 1987). Akrich, Callon and Latour (2002a) define innovation as the art of interesting an increasing number of allies who will make you stronger and stronger. According to Akrich, Callon and Latour (2002b), innovation is characterized by adaptations, series of trial and error and countless negotiations between numerous actors. The word *innovation* originates from a Latin word “novare” which means renewing and indicates the introduction of something that did not exist before. The result of a new product development process, introducing new features of a product, replacing one of the materials a product is made of, introducing new machinery or IT systems are all innovations (Schiele, 2006). Nevertheless, innovation is different from invention. An inventor produces ideas while an entrepreneur “gets things done” and this may but need not embody anything that is scientifically new (Schumpeter, 1947). Innovation studies have been done in a number of industries such as automotive (e.g. Birou, 1994; Clark and Fujimoto, 1991), computers (e.g. Hartley, 1994), kitchen and home equipment and car-windcreens (e.g. Hatchuel, Weil and Masson, 2003); electronics and medical equipments (e.g. Birou, 1994) and chemicals (e.g. Ahuja and Katila, 2004).

Table 1: Typology of innovations

Innovation type	Author
Incremental, technical, application, radical	Gobeli and Brown (1987)
New: product/service, production process, organizational structure , people	Knight (1967)
Developing new: products/services, methods of production, organizational forms and:	Schumpeter (1934)

identifying new: markets, sources of supply	
Organizational, market, strategic tendency to pioneers and technological sophistication	Capon et al (1992)
Administrative, technical	Subramanian and Nilakanta (1996)
Production, adaptive, marketing, modes of work practices	Mahroum et al (2007)
Incremental, new-to-market	Mosey (2005)
Product/service, process, position, business models	Francis and Bessant (2005)
Breakthrough, incremental	Miller (1999)

Source: Authors' compilation

Traditionally, innovation has been perceived as narrowing down to technological or new product innovations. More recently, it has been recognised that innovation is not just about new products; it is also about processes and thus about doing old things in a new way and its suggested that any analysis of innovation especially in rural services not only has to consider new services delivered in new ways, but must also look at new approaches to delivering traditional services (Mahroum et al., 2007). Of equal importance are how innovation relates to new ways of working across the public, private and community sectors, and how modern rural service solutions can be created by the pooling of resources and the sharing of expertise and knowledge. The idea that innovation is everywhere (and not just in cities and science parks) is an increasingly compelling proposition and hence innovation policy needs to move beyond the narrow focus of technology and research and development to a broader understanding that embraces social (e.g building the capacity of local communities and on the sharing of knowledge) and local innovation (ibid). Comparably, Francis and Bessant (2005), points out a weakness with many innovation studies whereby they focus on product/service and process innovations thereby excluding innovations in product positioning and business models.

Most definitions of innovation have been outside the context of the relationship and network perspective. Taking into consideration the relationship and network approach, innovation could take a form of inclusion of new network actors or exclusion of existing ones. Further, considering that the customer could be a consumer or another business in the marketing channel, the needs could be different, for instance, while the end consumer may be interested in safe food and drink, the business (larger customer) in addition may require a certain volume from suppliers. The suppliers in order to meet the volumes may decide to market collectively and this would be an innovation not hitherto captured by traditional studies. Moreover, in regard to agricultural products such as organic products, they have unique characteristics; for instance most are consumed in the form they were harvested without necessarily being processed, and they are perishable and seasonal. The unique characteristics of agricultural products in the context of business relationships and networks are likely to yield new types of innovations and may require distinct capabilities. This broadening of scope of possible innovations indicates the importance of revisiting the typology of innovation.

The role of business relationships and networks in the development and implementation of innovations

The increasing market changes and global competition calls for more frequent innovation and higher quality. The implication of this to firms is the need to adopt approaches that decrease product development times and, at the same time, improve quality and reduce product cost (McIvor and Humphreys, 2004). Continuous innovation is imperative if suppliers are to sustain their position as preferred suppliers to larger customers (Johnsen and Ford, 2006) and for the survival and growth of

enterprises (Francis and Bessant, 2005). An innovation may enhance the customer-supplier relationship because it strengthens the competence of SMEs to operate more effectively in meeting the market demands, and it may improve the level of relationship development. Ritter and Gemunden (2003) show that network competence has a significant positive impact on both the degree of a firm's technological interweavement (the totality of a firm's technology oriented relationships aimed at acquiring, jointly developing or diffusing of technological know-how and resources) and its innovation success (both product and process innovation). Moreover, the contribution of formal and informal networks is consistently cited as a key driver of innovation (Mahroum et al., 2007) and no wonder that Akrich, Callon and Latour (2002a) defines innovation as the art of interesting an increasing number of allies who will make you stronger and stronger.

Internal innovation models have been found not to yield a sustained growth of an organisation. Companies are increasingly striving to connect a hitherto internal approach to research and development to an approach that involves external parties, including users (Donaldson and O'Toole, 2007). As Schiele (2006) notes, "innovation is increasingly not happening in the isolated laboratory of a firm anymore, but involves the supply chain including the firms' suppliers". In development and implementation of technological innovations along the dyadic customer-supplier relationship, a number of activities are involved. Johnsen (2004) identifies these activities as comprising of uniting, mobilising, synchronising, communicating, problem solving, exchanging human resources, and timing. By applying these activities, the firms in the relationship gain access to resources and technologies that are available in the wider network.

Hansen, Søndergaard and Meredith (2002) found that environmentally innovative capability is conceived as the result of interplay between the strategic orientation, the network relations, and the competencies of the company. In their study on environmental innovation, they suggest the following stages of innovation adoption; idea generation, search and selection, implementation and operation. They also indicated that it is the network, in combination with a firm's competencies and overall business strategy, which determines the level of ability to exploit available network resources in the adoption of environmental innovations. Likewise, Hatchuel, Weil and Masson (2003) acknowledged that innovative capabilities have to be supported by the network of suppliers especially where non-routinized metabolism is involved or when there is a big concept-knowledge distance implying that different people and teams will have to cooperate along several, evolving and expanding heterogeneous design spaces.

The importance of customer-supplier relationship in product development was emphasised by Mosey (2005). According to the study, it is important that SMEs identify and satisfy the unmet needs of potential new customers by building new networks with innovative customers and suppliers if they are to enhance the development of new-to-market products (products that offer new functionality to the market and thereby allow customers to do what they could not do before). A firm that is able to identify and exploit new opportunities by continually building partnerships with lead users would be more likely to produce a stream of successful new-to-market products (ibid). SMEs that exploited new technologies were found to be active in seeking new technologies to incorporate within new products and this was mainly through development of partnerships with new customers, suppliers or even competitors. In this way, the SMEs experimented with new technologies within new markets and learnt concurrently about the market and technical needs.

It is not only in development of technological or process innovations that relationships and networks are important; they are equally important in creating value or promoting consumer acceptance for an innovation (Hargadon and Yellowlees, 2001). This is particularly so in the backdrop of recognizing the interdependent relationship between the technical and social aspects that constitute an innovation. The social "material" and the technical "material" are both relatively malleable and the successful innovation is the one which stabilises an acceptable arrangement between the human actors and the non-human actors at the same time (Akrich, Callon and Latour 2002b). Innovations that distinguish

themselves too much from the existing institutions are susceptible to blind spots in the public's comprehension and acceptance, particularly those innovations viewed as radical or discontinuous. We argue that by adopting a relationship and network approach in development and implementation of innovations, there would be lot of interaction between customers and suppliers (both customer and supplier are active participants and would have their input in the process) and therefore both parties would be well aware of the innovations and their attributes thereby boosting acceptance.

Market changes and the role of relationship and network approach in organic food and drink sector

Organic food refers to food grown and processed without chemicals, additives, hormones or pesticides (CNN, 2006). Organic farming is practiced without the use of genetically modified organisms and applies standards that protect the land and water supply (ibid). Globally, the demand for organic food and drink has been escalating and outpacing supply. Exceptionally high market growth rates pushed global organic food and drink sales towards US \$40 billion in 2006 up from \$23 billion in 2002 (Organic monitor, 2006). In particular to industrialised countries, there has been a tremendous growth in consumer interest for organic food in the last fifteen years (Wier and Calverley, 2002). Both consumption and production has been on the rise. In 2005, the overall organic market in UK grew by 30% and specifically organic milk sales rose by about 65% (Soil Association, 2006). The country's organic food and drink sales reached nearly £2 billion in 2006 (Soil Association, 2007). Though the organic sector is growing dramatically, the available literature reveals little about the innovations and capabilities that are relevant in responding to market changes in this sector.

In undertaking the literature review, sometimes it was difficult to identify the market changes that are specific to the organic sector from those that are general to the food and drink industry. However, it was evident that in the food and drink industry, markets are increasingly changing concomitant with changing consumer habits and lifestyles. In the agribusiness industry, some of the recent market changes include the biotechnology revolution, pressures arising from globalisation for firms to maintain better process control, the need to ensure health-hygiene-safety, nutritional quality and to provide a new generation of functional foods, and consumers' demand for convenience, variety, and quality (Font and Harris, 2004; Traill and Meulenberg, 2002). There is increasing health consciousness and concern for environment and welfare of animals by consumers (Scarpa, Thiene and Marangon, 2007; Walker and Brammer, 2007; Wier and Calverley, 2002; Xu et al., 2007). There is a trend from generic goods to processed products (Wier and Calverley, 2002). The demand for food produced with environmentally-friendly techniques is growing in the EU largely due to consumer awareness about human health and environmental issues and concern for food safety, quality and security (Scarpa, Thiene and Marangon, 2007). The factors influencing the market changes especially the concern for environment include; eco-literacy, perception of value, availability, convenience and trust (Xu et al., 2007). Health benefits are the main motive for buying organic food and drink, others being concern for environment, animal welfare and taste (Wier and Calverley, 2002). In addition to health and environmental concerns, Batte et al. (2007) mention consumers' perception that the products are supportive of small scale agriculture and local rural communities as another reason that make consumers value organic products.

The market change in regard to demand for convenience food is driven by changes in lifestyles, for instance increased female labour participation, the demise of family meal occasions, and increased snacking and grazing (Wier and Calverley, 2002). Consumers have no time to prepare meals from many different raw ingredients – they want convenience or easily prepared food. Busy customers prefer shopping in supermarkets and therefore it is important that the organic commodities are stored in such chains (ibid). The increasing health consciousness corresponds to their interest in and desire to use organic products and this implies an increased consumer focus on food safety and quality.

They prefer food that does not have harmful additives, preservatives and agricultural chemicals (ibid) all of which are characteristics of organic food and drink. Ethical and environmental concerns also favour production and consumption of organic products.

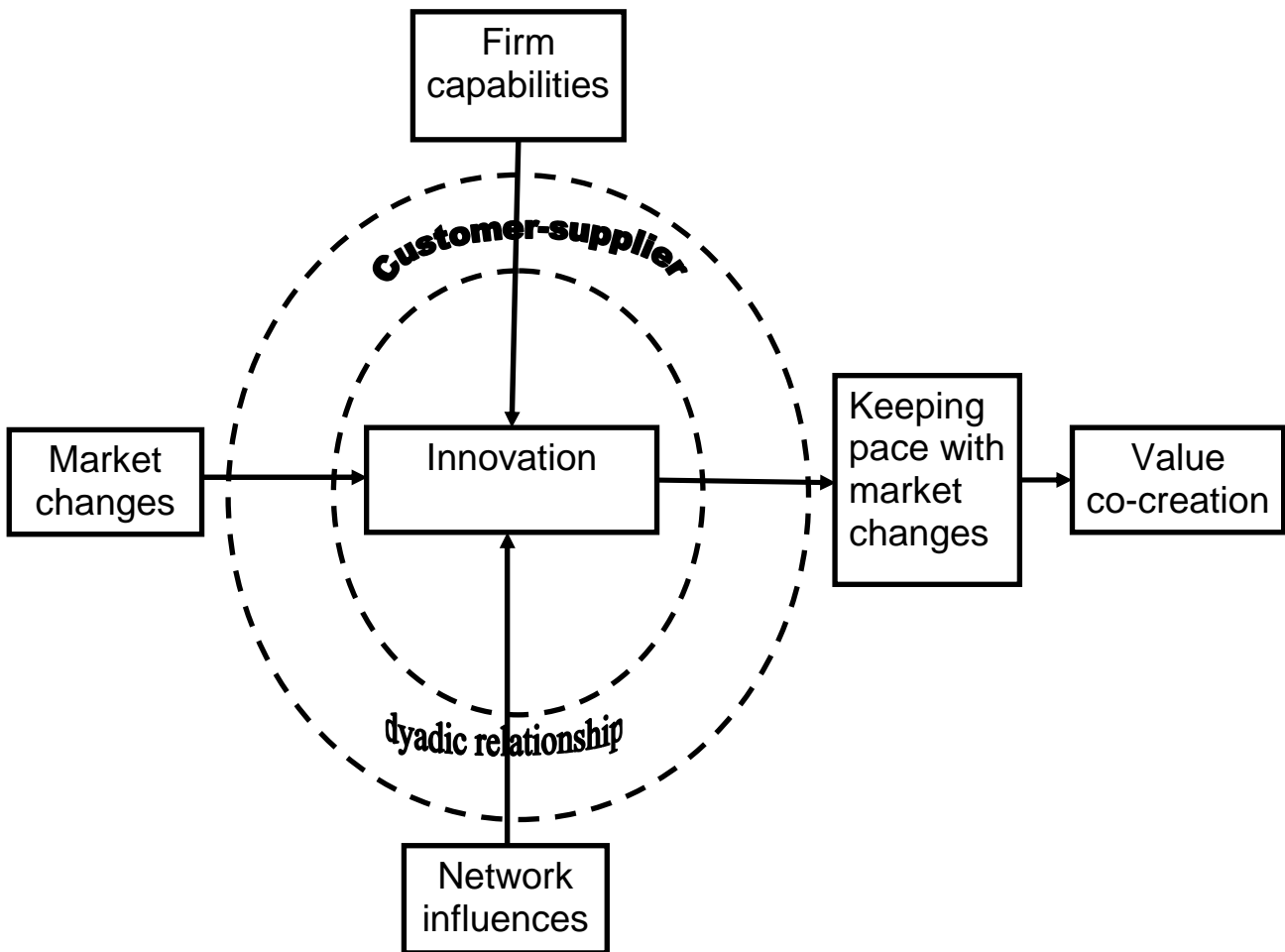
In response to such market or consumer-led pressures, retail customers are making it a requirement for organic food and drink suppliers to increase their agility and flexibility in response for a wider variety of products and more sophisticated processes, production techniques and marketing of products. Thus, to gain and sustain market share, organic food and drink suppliers must develop capabilities to communicate innovative strategies and highly developed market-focused responses to become long-term preferred suppliers with major retail customers, both in the UK and in markets growing across the globe. As large food retailers face mounting pressures from consumers to stock more organic produce and extend their ranges, retailers place increasing demands on the firms in their supply chain to respond to market-driven requirements.

The drivers of production and consumption of organic products vary from country to country. In Denmark, the expansion of markets for organic foods was initially driven by government subsidies, advisory services to organic farmers during the conversion period, and lowering of prices of organic products by supermarkets, but at a later stage the demand oriented forces became more influential (Wier and Calverley, 2002). The channels of distribution of organic products also vary across countries. For instance in German organic products are sold in speciality shops while in UK they are sold to consumers mainly via supermarkets (ibid). Like in Germany, in The Netherlands only a few organic products are offered regularly in supermarkets. Wier and Calverley (2002) attribute the lack of organic products in supermarkets of the two countries to reluctance of distributors to cooperate with the conventional food distributors. This is a clear example of an existing opportunity for applying relationship and network approach. Further, the existence of many market players along distribution channels increases costs and consequently the product prices. A direct link between retailers and producers through adoption of relationship and network approach would more likely yield both cost reduction and revenue benefits. In a nutshell, a well functioning production, processing and distribution system as well as reliable certification and labelling system are important for a successful organic industry. We argue that well-functioning systems may be attained through networks of cooperation or rather through improved competence in management of customer-supplier relationships and networks.

Linking innovations and capabilities to market changes in the context of business relationships and networks

Based on the reviewed literature, the previous sections have attempted to identify some of the market changes, innovations and capabilities in the context of business relationships and networks. This section brings together these issues into a parsimonious framework (Figure 1).

Figure 1: A framework linking innovations and capabilities to market changes in the context of business relationships and networks



Source: Authors' compilation

The premise in developing the framework is that the value and performance of customer-supplier dyadic relationship depends on the ability to respond to market changes through innovation. As identified from the reviewed literature, innovation could be manifested in form of for instance new products, new features of products, product material's replacement, process innovation, product positioning or even business models (Francis and Bessant, 2005; Harland, Brenchley and Walker, 2003; Johnsen, 2004; Schiele, 2006)

It is also understood that if an innovation succeeds, it is because it satisfies a demand or as Akrich, Callon and Latour (2002a) puts it, follow the market or rather follow the users and you will win. In the food and drink sector, the market changes that have been identified from the literature include, increased consciousness in health-hygiene-safety, need to ensure nutritional quality, demand for convenience and variety, demand for better process control (traceability), increased concern for environment and increased concern for animal welfare (Font and Harris, 2004; Scarpa, Thiene and Marangon, 2007; Traill and Meulenber, 2002; Walker and Brammer, 2007; Wier and Calverley, 2002; Xu et al., 2007)

Innovation may be achieved through exploitation of a firm's capabilities and its network competence. Capabilities as classified by various authors could be; client specific and project management capabilities (Ethiraj, 2005); interaction capabilities (human, technological, managerial systems, cultural) (Johnsen and Ford, 2006); core capabilities (skills and knowledge, values and norms, managerial systems, technical systems) (Leonard-Barton, 1992); adoption, integration and configuration of endogenous and exogenous organizational skills, resources and functions to meet change (Sher and Lee, 2004); brand building and management, market 'intelligence', new product

development, process innovation (Trail and Meulenberg, 2002); and dynamic capabilities (adaptive, absorptive, innovative) (Wang and Ahmed, 2007).

In development and implementation of market-driven innovations, a firm may augment its limited resources and capabilities by gaining from networks. Network influences could be manifested in form of actors, resources and activities (Hakansson and Snehota, 1995). The success of an innovation may be explained by its intrinsic qualities as well as its capacity to create adhesion between numerous allies such as users, intermediaries and so on (Akrich, Callon and Latour, 2002a). Nevertheless, similarly to the development and implementation of innovations, the process of capabilities building in addition to being driven by endogenous factors is driven by factors external to a firm (Coombs and Metcalfe, 2000 pp.221) and hence the business relationship and network influences. Moreover, increasingly firms are relying on knowledge acquired from other firms to facilitate the development of their own capabilities (Lane and Lubatkin, 1998). Learning alliances to capability development has the advantage of placing a premium on a firm's ability to identify, assimilate, and utilize a partner's knowledge (ibid).

Conclusions

This paper reviews literature on three core areas, namely: business relationships and networks (with a focus on customer-supplier dyad), innovations and capabilities. The paper has discussed the relevance of business relationships and networks and, the role of relationships and networks on the development and implementation of innovations and capabilities building. It has developed a framework that blend the relationship and network approach with capabilities and innovation concepts. The developed framework suggests that, by improving capabilities and innovativeness in relationship with their larger customers, SME suppliers can enhance their ability to keep pace with market changes and consequently gain from co-created value. Since this piece of work is part of an ongoing research, the works that ensue will assess how this framework is applicable in organic food and drink sub-sector. In addition to developing the schema, this paper has identified some research gaps related to market-driven innovations and capabilities building especially in food and drink sector.

This literature review has several limitations. First, it is based on review of literature and therefore the issues identified and discussed have not been subject to empirical investigations. Such an investigation would enable a deeper understanding on the reviewed issues. Second, in attempting to link market changes to innovations and capabilities, the challenge of a different unit of analysis arises. Some studies were done with their motivation being capabilities with little or no mention of innovation neither market changes, others were motivated by innovation hence lacking linkup with the other two themes and outside the context of business relationships and networks, while others focus on issues in a particular sector and not on food and drink. This mix of analysis presents the problem of whether one is comparing like with like. A systematic exploration of these issues would be more appropriate.

Although a number of issues on capabilities and innovativeness have been researched across a range of industries, there is little evidence of such studies in the organic food and drink sector, yet the sector is growing rapidly and gaining popularity globally largely due to health, ethical and ecological concerns. Further, most of the empirical research on innovation has tended to examine the innovative activity contributed by relatively large firms; the innovative output of the SMEs has received only little attention and quantification (Acs and Audretsch, 1988), an indication of the need for further research in this scanty area. Also, much of the research seems to be using quantitative, survey-based methods, hence the need for qualitative research.

Unlike mechanical products or non-perishables, agricultural products have their unique characteristics. For instance most are consumed in the form they were harvested without necessarily being processed, and they are perishable and seasonal. Such unique characteristics of agricultural

products would more likely be associated with unique innovations and capabilities. Further, previous research especially on innovation tended to consider firms in isolation or rather adopted a narrow scope. Taking the perspective of firms as interdependent in networks and also taking into account the perishable products, as is the case for most organic food and drink, is likely to give new insights into the typology of innovations. The study therefore suggests the need to revisit the typology of innovation. Moreover, it has been recognised that, while the management of innovation literature fills entire libraries, the case studies which avoid the trap of retrospective explanation still remain scant (Akrich, Callon and Latour, 2002a).

Although the literature review indicates several market changes in food and drink industry, it suggests scarcity of information that links market changes to corresponding innovations. The review also divulges paucity of information on the innovations that are specific to organic food and drink sub-sector. Research is therefore necessary to identify the types of innovations that are developed and applied by organic food and drink SME suppliers and how they impact on the customer-supplier relationship. There is also a dearth of information on capabilities that are relevant to responding to market changes. Further, although it has been shown that survival for SME suppliers in dynamic markets calls for exploitation of distinct capabilities, the nature of these capabilities has not been identified, neither have enough investigations been done on how they are developed. All these knowledge gaps put forward opportunities for further research. Our planned work on 'market-driven innovations and capabilities building in organic food and drink SMEs in the context of business relationships and networks' will contribute to filling these lacunae.

References

- Acs, Z. J. and Audretsch, D. B. (1988) "Innovation in Large and Small Firms: An Empirical Analysis", **The American Economic Review**, Vol 78 No 4, pp. 678-690.
- Ahuja, G. and Katila, R. (2004) "Where do resources come from? The role of idiosyncratic situations", **Strategic Management Journal**, Vol 25 No 8-9, pp. 887-907.
- Akrich, M., Callon, M. and Latour, B. (2002a) "The Key to Success in Innovation Part I: The Art of Interessement", **International Journal of Innovation Management**, Vol 6 No 2, pp. 187-206.
- Akrich, M., Callon, M., Latour, B. and Monaghan, A. (2002b) "The Key to Success in Innovation Part II: The Art of Choosing Good Spokespersons", **International Journal of Innovation Management**, Vol 6 No 2, pp. 207-225.
- Amit, R., Paul, J. H. and Schoemaker, P. (1993) "Strategic Assets and Organizational Rent", **Strategic Management Journal**, Vol 14 No 1, pp. 33-46.
- Batte, M. T., Hooker, N. H., Haab, T. C. and Beaverson, J. (2007) "Putting their money where their mouths are: Consumer willingness to pay for multi-ingredient, processed organic food products", **Food Policy**, Vol 32 No 2, pp. 145-159.
- Birou, L. (1994). The role of the buyer-supplier linkage in an integrated product development environment, PhD Thesis, Michigan State University.
- Capon, N., Farley, J., Hulbert, J. and Lehmann, D. (1992) "Profiles of product innovators among large US manufacturers", **Management Science**, Vol 38 No 2, pp 157-169.
- Clark, K. and Fujimoto, T. (1991). **Product Development Performance: Strategy, Organization, and Management in the World Auto Industry**, Harvard Business School Press, Cambridge.
- CNN (2006), "Organic food, green products go mainstream", available at <http://www.cnn.com/2006/US/10/03/buying.green/index.html>
- Coombs, R. and Metcalfe, J.S. (2000), "Organizing for innovation: co-ordinating distributed innovation capabilities", in Foss, N. and Mahnke, V. (eds.) **Competence, Governance and Entrepreneurship**, Oxford University Press, Oxford, pp 209-231
- Donaldson, B. and O'Toole, T. (2007). **Strategic Market Relationships: from strategy to implementation**, John Wiley, Chichester.
- DTI (1994). **Innovation- Your Move**. Department of Trade and Industry, London.

- Ethiraj, S. K., Kale, P., Krishnan, M. S. and Singh, J. V. (2005) "Where do capabilities come from and how do they matter? A study in the software services industry", **Strategic Management Journal**, Vol 26 No 1, pp. 25-45.
- Font, X. and Harris, C. (2004) "Rethinking standards from green to sustainable", **Annals of Tourism Research**, Vol 31 No 4, pp. 986-1007.
- Ford, D. (2006). **The Business Marketing Course: Managing in Complex Networks**, John Wiley, Chichester.
- Ford, D., Gadde, L., Hakansson, H. and Snehota, I. (2003). **Managing Business Relationships**, Wiley, Chichester, England.
- Ford, D. and Hakansson, H. (2002) "How should companies interact in business networks?", **Journal of Business Research**, Vol 55, pp. 133-139.
- Forsström, B. (2005). Value Co-Creation in Industrial Seller Partnerships – Creating and Exploiting Interdependencies, PhD Thesis, ÅBO AKADEMIS FÖRLAG – ÅBO AKADEMI UNIVERSITY PRESS, ÅBO AKADEMIS FÖRLAG – ÅBO AKADEMI UNIVERSITY PRESS.
- Francis, D. and Bessant, J. (2005) "Targeting innovation and implications for capability development", **Technovation**, Vol 25 No 3, pp. 171-183.
- Gadde, L.-E. and Hakansson, H. (2008) "Business Relationships and Resource Combining." **The IMP Journal**, Vol 2 No 1, pp. 31-45.
- Gobeli, D. and Brown, D., Eds. (1987). **Analyzing Product Innovations. July-August**. Research Management.
- Gonzalez-Torre, P. L., Adenso-Diaz, B. and Artiba, H. (2004) "Environmental and reverse logistics policies in European bottling and packaging firms", **International Journal of Production Economics**, Vol 88 No 1, pp. 95-104.
- Hague, P., Hague, N. and Harrison, M. (2008), "Four Factors that Make Business-to-Business Marketing Special", available at <http://www.b2binternational.com/library/whitepapers/whitepapers04.php>
- Hakansson, H. and Snehota, I. (1995). **Developing Relationships in Business Networks**, International Thomson Press, Boston.
- Hansen, O. E., Søndergaard, B. and Meredith, S. (2002) "Environmental Innovations in Small and Medium Sized Enterprises", **Technology Analysis & Strategic Management**, Vol 14 No 1, pp. 37 - 56.
- Hargadon, A. B. and Yellowlees, D. (2001) "When Innovations Meet Institutions: Edison and the Design of the Electric Light", **Administrative science quarterly**, Vol 46 No 3, pp. 476.
- Harland, C., Brenchley, R. and Walker, H. (2003) "Risk in supply networks", **Journal of Purchasing and Supply Management**, Vol 9 No 2, pp. 51-62.
- Hartley, J. (1994). Understanding supplier involvement in their customer's product development. Department of Quantitative Analysis and Operations Management, University of Cincinnati.
- Hatchuel, A., Weil, B. and Masson, P. L. (2003), "Building innovation capabilities. The development of design-oriented organizations", in J. T. Hage, J.T. (Ed), **Innovation, Learning and Macro Institutional Change: Patterns of Knowledge Changes (forthcoming)**.
- Holt, K. (1983). **Product Innovation Management**. Butterworths, London.
- Hult, G. T. M., Hurley, R. F. and Knight, G. A. (2004), "Innovativeness: Its antecedents and impact on business performance", **Industrial Marketing Management**, Vol 33 No 5, pp. 429-438.
- IMP Group (1982). **International Marketing and Purchasing of Industrial Goods: An Interaction Approach**, JOHN WILEY & SONS, Chichester.
- Johanson, J. and Mattsson, L. (1987) "Inter-organisational relations in industrial systems: a network approach compared with a transaction cost approach", **International Studies of Management and Organisation**, Vol 18 No 1, pp. 34-48.
- Johnsen, R. (2005). Smaller supplier-larger customer relationships: an exploration of asymmetry PhD Thesis, University of Bath.

- Johnsen, R. E. and Ford, D. (2006) "Interaction capability development of smaller suppliers in relationships with larger customers", **Industrial Marketing Management**, Vol 35 No 8, pp. 1002-1015.
- Johnsen, T. (2004). On the management of collaborative innovation in networks, PhD Thesis, University of Bath.
- Knight, K. E. (1967) "A Descriptive Model of the Intra-Firm Innovation Process", **The Journal of Business**, Vol 40 No 4, pp. 478-496.
- Kotler, P. and Armstrong, G., Eds. (1994). **Principles of marketing**, Prentice Hall
- Lane, P. J. and Lubatkin, M. (1998) "Relative absorptive capacity and interorganizational learning", **Strategic Management Journal**, Vol 19 No 5, pp. 461-477.
- Leonard-Barton, D. (1992) "Core capabilities and core rigidities: a paradox in managing new product development", **Strategic Management Journal**, Vol 13, pp. 111-125.
- Mahroum, S., Atterton, J., Ward, N., Williams, A. M., Naylor, R., Hindle, R. and Rowe, F. (2007). **Rural Innovation**. National Endowment for Science, Technology and the Arts (NESTA), London.
- Makadok, R. (2001) "Toward a synthesis of the resource-based and dynamic-capability views on rent creation", **Strategic Management Journal**, Vol 22 No 5, pp. 387-401.
- McIvor, R. and Humphreys, P. (2004) "Early supplier involvement in the design process: lessons from the electronics industry", **Omega**, Vol 32 No 3, pp. 179-199.
- Miller, P. (1999). **Marketing the Unknown: Developing Market Strategies for Technical Innovations**, John Wiley, Chichester.
- Mosey, S. (2005) "Understanding new-to-market product development in SMEs", **International Journal of Operations & Production Management**, Vol 25 No 2, pp. 114-130.
- Organic monitor (2006). The Global Market for Organic Food & Drink: Business Opportunities & Future Outlook. Research publications, Organic-monitor, London.
- Palmer, A. (2004). **Introduction to Marketing: Theory and Practice**, Oxford University Press, Oxford.
- Ritter, T. and Gemunden, H. G. (2003) "Network competence: its impact on innovation success and its antecedents", **Journal of Business Research**, Vol 56, No 9, pp. 745-755.
- Ritter, T. W., I.T., Wesley J. J. (2002) "Measuring network competence: some international evidence", **The Journal of Business & Industrial Marketing**, Vol 17 No 2, pp. 119.
- Rogers, E. M. (1983). **Diffusion of Innovations**, Free Press, New York.
- Saren, M. (1984) "A classification and review of models of the intra-firm innovation process", **R&D management**, Vol 14 No 1, pp. 11-24.
- Scarpa, R., Thiene, M. and Marangon, F. (2007) "The Value of Collective Reputation for Environmentally-Friendly Production Methods: The Case of Val di Gresta", **Journal of Agricultural & Food Industrial Organization**, Vol 5 No 1, Article 7.
- Schiele, H. (2006) "How to distinguish innovative suppliers? Identifying innovative suppliers as new task for purchasing", **Industrial Marketing Management**, Vol 35 No 8, pp 925-935.
- Schumpeter, J. (1934). **The Theory of Economic Development**, Harvard University Press, Cambridge.
- Schumpeter, J. A. (1947) "The Creative Response in Economic History", **The Journal of Economic History**, Vol 7 No 2, pp. 149-159.
- Sher, P. J. and Lee, V. C. (2004) "Information technology as a facilitator for enhancing dynamic capabilities through knowledge management", **Information & Management**, Vol 41 No 8, pp. 933-945.
- Soil Association (2006), "Soil Association annual review", available at http://www.soilassociation.org/web/sa/saweb.nsf/Library?OpenForm&Cat=_Annual_reports
- Soil Association (2007), "The Biggest Changes are Always Made at the Roots2", Annual review, Soil Association Organic standard, available at http://www.soilassociation.org/web/sa/saweb.nsf/Library?OpenForm&Cat=_Annual_reports Soil

- Subramanian, A. and Nilakanta, S. (1996) "Organizational innovativeness: Exploring the relationship between organizational determinants of innovation, types of innovations, and measures of organizational performance", **Omega**, Vol 24 No 6, pp. 631-647.
- Teece, D. J., Pisano, G. and Shuen, A. (1997) "Dynamic capabilities and strategic management", **Strategic Management Journal**, Vol 18 No 7, pp. 509-533.
- Truill, W. B. and Meulenbergh, M. (2002) "Innovation in the Food Industry", **Agribusiness**, Vol 18 No 1, pp. 1-21.
- Walker, H. and Brammer, S. (2007), "A worldwide view", **Supply Management**, Vol 12 No 13, pp. 58-59.
- Wang, C. L. and Ahmed, P. K. (2007) "Dynamic capabilities: A review and research agenda", **International Journal of Management Reviews**, Vol 9 No 1, pp. 31-51.
- Wier, M. and Calverley, C. (2002) "Market potential for organic foods in Europe", **British Food Journal**, Vol 104 No 1, pp. 45-62.
- Wilkinson, I. F. (2000). A history of channels and network thinking in marketing in the twentieth century. Working paper. School of marketing, International business and Asian studies, university of Western Sydney, Sydney.
- Xu, S. X., Walker, H., Nairn, A. and Johnsen, T. (2007), "A network approach to understanding "green buying": a literature review", available at <http://impgroup.org/uploads/papers/5967.pdf>