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**SMEs AND GLOBAL SUPPLY CHAINS IN THE
FRENCH AGRICULTURAL MACHINERY SECTOR**

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Westminster for the degree of Doctor of Philosophy.

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Abstract

Over the last 40 years globalisation has had a major impact on small and medium sized enterprises (SMEs) in traditional manufacturing sectors, located in developed countries. In response to increasingly competitive domestic markets, many of these firms are now engaged in supplier and customer relationships internationally, in order to expand sales and take advantage of lower sourcing costs. This transition from predominantly local to global connections and the different ways in which SMEs manage their global relationships is the focus of this research. It was decided to confine the study to a single manufacturing sector, so that any differences between firms' experiences are not driven by the industry, but by other possible factors. Therefore the research question is: how do SMEs in the French agricultural machinery sector manage their global supply chains? Research was carried out into twelve SMEs in the agricultural machinery sector in north-west France. The qualitative research was broken down into three stages: exploratory, which included a range of professionals with knowledge of the sector including SMEs, larger firms and historians; explanatory, which followed a grounded theory methodology to develop new thinking about SMEs and global supply chains based on the findings, which were subsequently fed back to a number of professionals in a final stage and led to further discussion.

Uniformity in approaches to managing global supply chains was not found, and differences even between companies in the same product speciality were noted. The challenge of developing business relationships with suppliers and distributors against a background of power asymmetries and cultural distance in the global supply chain was met by the SMEs through the use of a variety of approaches. Out of the research has emerged a conceptualization of the challenges that SMEs face in relation to managing global supply chains: a governance, control and power (GCP) model that highlights the main responses and priorities for SMEs in terms of managing supply chain relationships and controlling flows of materials and information.

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Glossary of French Abbreviations

APE - *Activité principale exercée* is a code of five characters (four numbers and one letter) given to each main sectoral activity in the economy by INSEE.

AXEMA - *Union des syndicats de l'Agroéquipement*. The national lobby group of manufacturers of agricultural machinery in France that represents 230 companies and approximately 90% of production.

BCI - *Bretagne Commerce International*. The regional body which promotes Breton-based companies internationally.

CCI - *Chambres de Commerce et Industrie*. In France companies are obliged by law to pay a tax to finance the Chambers of Commerce and Industry which exist in each department.

CGPME - *Confédération générale du patronat des petites et moyennes entreprises*. The French national employers' lobby group for small and medium sized enterprises.

INSEE - *L'Institut national de la statistique et des études économiques*. The national organisation that collects, produces and analyses information about the French economy and society.

IRSTEA - *L'Institut national de recherche en sciences et technologies pour l'environnement et l'agriculture*. The French national research institute that carries out studies into agriculture and the environment.

PME - *Petites et Moyennes Entreprises* The French equivalent of SME, defined as a firm with less than 250 employees and a turnover of less than 50m€ per year.

UBIFRANCE - The French agency for the international development of companies. On the 1st January it absorbed the *Agence française pour les investissements internationaux* and became BUSINESS FRANCE.

XERFI - One of the leading French organisations for the study of specific sectors of the economy.

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Author's declaration

I, Brian Anthony Cragg, declare that all the material contained in this thesis is my own work.

Chapter 1. Introduction

“When Jean reached the end of the field, he stopped once more and cast his eye down along the Aigre, a swift clear stream flowing between meadows parallel to the Cloyes road: and he could see the procession of carts coming in from the country on their Saturday morning market day. Then he turned again and went back up the field. And he continued in this way, up and down, from north to south and then back, always at the same pace and with the same sweeping gesture, enveloped in the living cloud of grain, while behind him at the same gentle, almost meditative, pace, the harrow buried the seed to the sound of the cracking whip. Long spells of wet weather had held up the autumn sowing; the fields had already been newly manured in August and the land had long been ready for the plough, its deep soil, cleaned of unwholesome weeds, ripe to produce its crop of wheat following the rotation of clover and oats. So the fear of the coming frosts, potentially damaging after so much rain, had spurred on the activity of the farmers. The weather had suddenly turned cold and windless and a pitch-black sky spread a sombre, even light over this still ocean of land. They were sowing everywhere: another sower was working three hundred yards away to the left and yet another further along to the right; and for miles around, others and yet others could be seen sinking from sight and receding into the distance over the level ground ahead, tiny black figures, mere lines which grew thinner until they were finally lost from view. But all of them made this same gesture of casting the seed which you could sense floating in the air around them like a living wave. And even in the distance where all was blurred and the scattered sowers could no longer be seen, the plain was still quivering beneath it.” (Zola, 1887, p.22-23).

With the benefit of hindsight, this extract from Zola’s *La Terre* allows the modern reader to consider the enormous changes that have happened to agriculture in the last 130 years: the large number of peasants employed in agriculture at the time; the subsequent progressive depopulation of many French rural areas as a result of the increasing mechanisation of agriculture; the sheer physical hard work experienced by peasants and the low productivity before the arrival of machinery; the exposure of farming and therefore people’s livelihoods to the vagaries and ravages of the weather and finally the inseparable link between farming and the seasons. Although mechanization and scientific progress have dramatically reduced the

numbers of people employed on the land, farming remains as dependent on changes in the weather and the seasons as in the past. As farming has been transformed, so has the supporting industry of agricultural machinery, which is the focus of this study.

It is appropriate that this thesis has been principally written in the old industrial and logistics hub town of Redon - previously at the crossroads of rail, road, canal and river transport in north-west France. Redon lies on the axis of the Nantes to Brest canal, the Vilaine river up to the capital of Brittany, Rennes and the main southern Brittany railway line from Rennes and Nantes to Vannes and Quimper. In its industrial heyday, the town of Redon represented a logistical multimodal hub where goods were unloaded, stored and reloaded from one form of transport to another. Today on the river and canal, tourists have replaced industrial and agricultural merchandise.

In addition to its role as a hub, Redon possessed its own manufacturing sites. Across the port from the author's office is the now empty site of Garnier – a manufacturer of agricultural machinery that specialized in apple pressing machines, mills and harvesters: local machinery manufactured with parts from local suppliers and destined for local small-scale farmers. Located in the old port area of Redon, Garnier was founded in 1863 and finally closed in 1980. At the height of its activity in 1970 it was the largest firm in Redon with 764 employees (Crolas, 2013). Logistics and agricultural machinery are central to this thesis and up until the 1980's Redon resonated with both.

These transformations to the local economy in north-west France form the background to this research project. As will be outlined in more detail in chapter 2, many companies in the agricultural machinery sector in the last 30 to 40 years in France have gone out of business and those that remain have had to modernize, employ new industrial methods and seek out new international markets in response to a domestic agricultural market, which is the largest in Europe and has become crowded with large foreign competitors. Particularly affected by market changes are small and medium sized firms (SMEs).

Manufacturing SMEs in the agricultural machinery sector are faced with changes and the need to adapt from a domestic base to an increasingly globalised environment with foreign suppliers and customers. The focus of this study is on the question “how”: how do these SMEs manage global supply chains and relationships with firms from different cultures? How

do they manage the challenge of being a resource-limited, born local firm required to act on the global stage? The importance of this issue can be ascertained by simply noting that of the 2.4 million SMEs in France, only 84000 (3.5%) export (Bouveret-Rivat and Mercier-Suissa, 2010). Furthermore the Brittany region, the main focus of this study, represents only 2.4% of France's exports and 2.1% of its imports (BCI, 2015). Few SMEs in France are active internationally and Breton firms have underperformed compared to firms in other French regions. The potential for internationalization exists, yet in this region few have achieved it. Hence, carrying out research into the question of how SMEs that currently have global suppliers and distributors, actually set up and manage relationships beyond their borders, could produce interesting lessons for other firms. It should be noted from the outset that, unusually for research into SMEs, this is a study into SMEs as lead firms and final assemblers in their respective supply chains, and not as Tier I or Tier II suppliers of larger companies.

Chapter 2 of this thesis considers the historical, cultural, political, and industrial context of France, as well as the particular regional circumstances of north-west France and the situation of the agricultural machinery sector. The reasons for a contextualizing chapter are that certain features of the 'French case' need to be outlined and that a historical approach to the sector enables the subsequent research to be more fully understood. Chapter 3 then presents the range of academic research relevant to SMEs and global supply chains, including both the internationalization literature and the supply chain management literature. Chapter 4 presents the methodology employed in the research to address the research question and in particular grounded theory. Chapter 5 is an analysis of the first exploratory stage of the research involving both SMEs and larger firms. Chapter 6 is a presentation of the principal explanatory stage of the research, using the grounded theory methodology and chapter 7 considers the responses of professionals and managers to these findings in feedback sessions that were held. Chapter 8 advances theorizing on global supply chains and SMEs by analyzing the data in detail and making six propositions linked to the findings. The core category is also presented and connections with political theory are made. Finally the policy and managerial implications are presented, possible future research directions are suggested and a conclusion is made in Chapter 9.

Chapter 2. Context

“If a researcher wants to build theory, it is important for him or her to understand as much as possible about the phenomenon under investigation. This means locating a phenomenon contextually or within the full range of macro and micro conditions in which it is embedded...” (Strauss and Corbin, 1998, p182).

2.1. Introduction

This subject of this thesis is the global organization of industrial supply, production and distribution in small and medium sized companies in the agricultural machinery sector in north-west France: in other words, the management of global supply chains by French SMEs. How do companies, which produce complex modern machines with a relatively small amount of human resources, coordinate and manage supply chains extending well beyond their borders? At the heart of this thesis is an examination of locally-based, resource-limited French manufacturing SMEs engaged in supply chain relationships of procurement and distribution, to varying degrees and in varying forms, geographically dispersed across the globe.

However it is also important to set the political and economic background to a study of this particular sector. Without this context it is difficult to grasp the nature of the supply chains in which these SMEs operate (Cox, 1999) and ultimately to fully comprehend the thesis. The review of the context breaks down into the following sections: firstly the fraught relationship between France and globalisation is analysed (2.2.1); secondly the cultural dimension is examined with reference to the question of whether the particularity of French culture has an effect on internationalization (2.2.2); then, industry in France is considered with a focus on deindustrialization (2.3.1), the offshoring phenomenon (2.3.2) and the trend for large firms to internationalize (2.3.3); in section 2.4, agriculture in France is analysed, while in section 2.5, the history of two firms in the agricultural machinery sector that went out of business is presented, in order to provide a detailed context to the current situation of firms in this sector; finally the key features of the modern agricultural machinery sector (2.6) and the regional dimension of Brittany and north-west France are considered (2.7).

For the purposes of this chapter most of the macroeconomic context of France relates to the recent history of the last ten to twenty years. However in studying the history of a particular industrial sector and employment trends, it is interesting to take a longer view and to use as a point of reference the end of ‘*Les Trentes Glorieuses*’; the 30 years that followed WWII and

saw high rates of growth in the French economy and development of its industry. The end of this period in the late 1970's and early 1980's was marked by significant changes in most developed Western economies, including slow growth, rising levels of unemployment and firm closures. These changes, which have been described in detail by Piore and Sabel (1984), also affected the agricultural machinery industry in France, as will be shown in section 2.5 of this chapter.

2.2. France, Globalisation and Culture

2.2.1. France and Globalisation

In the 13th century the fairs of Champagne were the leading locations for the trade of goods and material, especially cloth, in Europe. Fernand Braudel, the eminent French historian, points out that this was the first and last time that France occupied the central trading position in the European economy (Braudel, 1990).

In modern times France cannot be said to be at the centre of European, let alone global, trade and this can be gauged if we consider the relative export performances of France and Germany. There are 350,000 German exporting companies and only 100,000 French (DGTPE, 2009). While sectorial specializations are broadly similar (automobiles, pharmaceuticals, high technology), Germany has many more medium-sized manufacturing companies (Mittelstand) which are active internationally. In 2011, Germany had a trade surplus of 158€billion, whereas France registered a trade deficit of 71€billion (Gasnier, 2012).

In 2014, during an address to the National Assembly, the prime minister, Manuel Valls laid the blame for France's economic woes fairly and squarely at the doors of globalisation: "Equally we feel that our country is fragmenting into the winners and losers of globalisation. In the peripheries, in the medium sized towns and small towns, the rural areas, everyday life is getting worse. Factories are offshoring, farms are disappearing and jobs are being destroyed"¹, (Rue 89, 2014).

¹Translated from : « *Nous sentons bien, également, que notre pays se fragmente entre les gagnants et les perdants de la mondialisation. Dans les périphéries, les villes moyennes, les petites villes, les espaces ruraux, la vie de tous les jours se dégrade. Des usines se délocalisent, des exploitations agricoles disparaissent, des emplois sont détruits.* »

Globalisation is blamed for job losses and factory closures. A previous Minister for Industrial Restructuring, Arnaud Montebourg, during his campaign to become the Socialist Party candidate for the Presidency, published a book entitled 'Vote for Deglobalisation', an argument strongly advocating tariffs, protectionism and interventionist policies to preserve French industry (Montebourg, 2011). In 2011 a survey found that 50% of French people see globalisation as a threat and only 37% see it as an opportunity. However among the 75% of the French people surveyed who would like to see more protectionist policies, only 35% of them considered this achievable and realistic. These findings would seem to indicate that French people are ambivalent about open markets, seeking more protection but at the same time realizing that this may be difficult to obtain (Le Monde, 2011).

Explanations of this attitude towards globalisation can be posited through an understanding of the phenomenon of globalisation and an appreciation of French society, culture and history. In a country wedded to the idea of '*terroir*', what Virilio (1997) has termed the 'end of geography' (the increasing irrelevance of distance and borders in the globalised world and the diminution of locality as a generator of meaning) alarms and destabilizes. Equally Castells (2010) makes the point that the fundamental contradiction of modern globalisation is that we live in a world where flows of goods, people, information and capital are increasingly important, yet we, as humans, are located in places: "in a world constructed around the logic of the space of flows, people make their living in the space of places" (Castells, 2010: xxxix). Bauman (2012) has referred to the 'Great War of Independence from Space' of the last quarter of the twentieth century, which has released companies and shareholders from any ties to territory, regions or local people. Power has become disconnected from any duties to communities and employees. Consequently freedom for companies to downsize, restructure and relocate at will has grown, despite efforts to limit the damage. It is against these forces of globalisation that some French people from across the political spectrum resist.

This then raises the question of the role of the French state. Cox and Sinclair (1996) propose that the modern nation state, in the era of globalisation, can only perform one of two roles: first that of the 'neoliberal states' in wealthy countries whose function is to create the low tax conditions to attract companies seeking to compete in the global economy and the second is that of 'neo-mercantilist developmental states', which control internal political order to ensure domestic industry is developed and raw material extraction facilitated. Thus the French state

with high levels of taxation and public spending (in relation to other European countries), finds itself trying to perform the former function, while aiming to maintain an egalitarian social model. It should be noted that, contrary to popular perceptions, since 1980 tax levels have in fact declined in France and that the richest 10% have been the main beneficiaries, as the tax system has become less progressive and loopholes have been increasingly exploited (Gadfrey, 2013).

Tax revenues are, therefore, increasingly at risk. Globalisation, which can be interpreted as space/time compression and hence the mobility of capital and the global elite, imperils the tax base in two ways (Bauman, 2012). Firstly high earners hide undeclared income in tax havens abroad at the click of a mouse and with the advice of an accountant. Secondly they vote with their feet and migrate to other countries (London is now France's sixth city). In so doing, they contribute to the well-documented exodus of young and educated French academics, businesspeople and innovators (The Independent, 2012).

For French manufacturing companies, globalisation brings the opportunity of foreign sourcing and cost reduction. Yet, as Gray has argued, this outsourcing phenomenon may herald dangers for French society:

“A social market begins to unravel when business relationships that have been long-term and based on trust become short-term, transactional and contractual...Large companies are more liable to focus on short term cost reductions than on the maintenance of a long-term stable relationship in their treatment of suppliers.” (Gray, 2009, p96).

From whichever angle this subject is examined, globalisation adds uncertainty and instability to modern France: rendering the state powerless against capital and human flight, raising populist demands from both left and right for greater protectionism and disrupting old ties to communities and territories.

2.2.2. Cultural specificity: the case of France

This thesis discusses the nature of inter-firm relationships and seeks explanations for the supply chain structures of small firms located in north-west France. To understand these relationships between firms, which have moved in part from the local to the global, it is useful

to understand the specificity of French culture and how it can be situated in relation to other cultures. What kind of society is France and how does this affect business relations?

Each society has its own culture. However defining culture is a notoriously perilous exercise, as it is a concept that is open to many different interpretations (Geertz, 1973). Geertz defines culture as: “an historically transmitted pattern of meanings embodied in symbols, a system of inherited conceptions expressed in symbolic forms”, (Geertz, 1973, p89). Fukuyama (1996) prefers to define culture as an “inherited ethical habit”. As a working definition it can be proposed that culture relates to ideas and values that are transmitted within a society and are manifested in actual social relationships.

In this section the key features of French culture will be identified, with a view to establishing how this culture might influence business, organizations and inter-firm relationships. The starting point is to consider the notion of trust, which is seen as a social capital. Fukuyama (1996) distinguishes between high trust and low trust societies and argues that France along with China and Italy can be placed in the latter category. The argument is made that high trust societies are those where businesses are more able to thrive due to a predominant culture which encourages and facilitates the spontaneous association of people with shared values, independent of the state to create entrepreneurial projects. France, according to Fukuyama, lacks a dynamic civil society based on the kinds of informal sociability to be found for example in American non-established churches, voluntary associations, schools and universities and also in Japanese business organizations such as *keiretzu*. In France the state is looked to for the provision of solutions. Arguably, this “missing middle” between the state and the family has been a continuous feature of France since before the Revolution (Tocqueville, 1856) and can be traced back to the centralization of authority in the monarchy during the seventeenth century. The system of *intendants*, a precursor to the post-revolutionary *préfets*, allowed the monarchy to maintain local control throughout France. The consequence of this for civil society is described by Tocqueville:

“Under the old régime as it is now, there was in France no township, borough, village, or hamlet, however small, no hospital, factory, convent or college which had a right to

manage its own affairs as it thought fit or to administer its possessions without interference”² (Tocqueville, 1856, p121).

Fukuyama (1996) argues that historically the French economy has been characterized by the family firm and craft (often luxury or high quality) industries. These firms have been slow to make the transition to professional management and modern corporate structures, for fear of losing control and autonomy. Additionally Crozier (1964) noted that face-to-face informal relationships are difficult in the French setting and there is a distinct preference for centralized and hierarchical control in all aspects of business and social life, to avoid having to find solutions locally and running the risk of creating dependence on equals. The bureaucratic system is seen as the best solution to this dilemma in French attitudes to authority.

The argument of the “missing middle”, a lack of civil society, is somewhat dated, since in France 26% of the population is a volunteer in a voluntary organisation and there are 1.8 million jobs in voluntary associations in France (Le Monde, 2015). This would suggest a thriving civil society. One report notes: “The tradition, which gave the state the monopoly of public interest concerns, gradually lost its force in the 20th century, and non-profit organisations multiplied during the past three decades in every field of public interest” (GHK, 2009, p1). Thus there has been a shift away from state-directed action towards non-profit organisations, so that, today, around 70,000 associations are created every year.

To conclude, from the perspective of the manufacturing SMEs in this research, the cultural context has produced family firms that operate in traditional forms with a respect for the hierarchy and guard against being taken over by larger players. Practices have undoubtedly evolved since the paternalistic agricultural machinery manufacturers in the post WWII period. While cultural determinism needs to be handled carefully, the born local SMEs in this research have begun to act globally, with a cultural heritage of formality in business relations, but also with a more recently developed culture of a dynamic civil society, where citizens actively participate in local activities, thereby enhancing local ties.

² Translated from : « Sous l’ancien régime comme de nos jours, il n’y avait ville, bourg, village, ni si petit hameau en France, hôpital, fabrique, couvent ni collège, qui pût avoir une volonté indépendante dans ses affaires particulières, ni administrer à sa volonté ses propres biens ».

2.3 Industry in France

It is important to analyze the context in which these SMEs have been operating and in particular the relative decline of French industry in relation to its neighbouring European partners. In industrial manufacturing since 2000 France has been lagging behind Germany and the average for the Eurozone. Research shows a clear disparity between France and Germany since the turn of the millennium (COE rexecode, 2013). While industrial production in France has fallen by 10% over this period, Germany and central European countries have seen spectacular increases: 21% in the Czech Republic, 24% in Austria, 28% in Hungary, 48% in Rumania and 60% in Poland (Le Monde, 2014).

In 2013 investment was put on hold as many companies preferred to pay off debts, restore margins and wait for the government's new tax proposals to become clearer, before taking on more risk (Les Echos, 2013d). In 2014 the pattern continued as companies announced stagnation in their investments and a planned reduction of 3% in 2015 (Le Monde, 2014). Furthermore, a study by the consultants, Landwell, has shown that businesses in France suffer the highest levels of global taxation (taxes and social charges and employee contributions combined) of the 7 leading European nations and that it remains the least attractive country fiscally (Usine nouvelle, 2013). It is within this context of economic uncertainty for French SMEs that this study has been carried out.

2.3.1. Deindustrialization

In his report into French industry, published in November 2012, Louis Gallois, ex-president of Airbus, was clear about the decline of French industry: "French industry has today reached a critical point, beyond which it is threatened with disintegration".³ (Gallois, 2012). He also denounced the level of taxation linked to the high level of public spending. Between 1980 and 2007 France lost more than 2 million industrial jobs from just over 5 million to slightly more than 3 million (Demou, 2010). The share of industry in Value Added shrank from 18% in 2000 to 12.5% in 2011. Also France's share of world trade, like that of other developed nations, has declined from 6% in 1970 to 3.6% in 2011 (Abis and Pouch, 2012).

³ Translated from: "*L'industrie française atteint aujourd'hui un seuil critique, au-delà duquel elle est menacée de déstructuration*".

Since 2008 the picture has not improved. From the beginning of 2009 to quarter 3 of 2014 every quarter has seen a net loss of factories in France, resulting in a total net loss of 558 factories. And for the same period every quarter, except one, has seen a net loss of jobs in manufacturing industry (Trendeo, 2014). France has been hit harder than other comparable European countries in terms of deindustrialization. Manufacturing industry in 2010 represented only 12.6% of France's GDP compared with 17.8% in 2000, a lower percentage than in Greece, Spain, Portugal or the United Kingdom (Cohen and Buiges, 2014). In a major study of France's industrial decline Cohen and Buiges (2014) cite several main reasons but point out that no single reason bears sole responsibility. The first is that labor productivity is at southern and not northern European levels, largely because of a lack of investment in new machinery, innovation and new products. Secondly overall production costs are too high in France with the result that margins are the lowest in Europe. Thirdly there are too few exporting companies in France (100,000 compared to 350,000 in Germany) and in particular there are too few SMEs big enough to capture market share in foreign countries and establish themselves globally in the manner of the German Mittelstand companies.

A fourth reason is linked to the development of the European single currency, which has led to a tendency for industry to locate itself in the most productive and favorable regions of Europe. Given that barriers have been removed and transport costs are low, economies of scale have become more significant and the trend has been for industry to be concentrated and not spread evenly across the Eurozone countries, as Krugman (1991) accurately predicted. Finally, at the macroeconomic level, in contrast to Germany's supply side economic policy (reduction in company employee contributions and increases in indirect taxation on consumption), France has pursued a policy of supporting domestic demand, which has boosted foreign imports, negatively affected the trade balance and has neglected the issue of the competitiveness of its companies.

One of the results is that in the third quarter of 2013, 12790 companies in France began bankruptcies proceedings, the highest figure for a summer since 1993 (Les Echos, 2013b). The tendency has been for those large enterprises which are the most active internationally to be most likely to experience any recovery. Arguably it is because these companies have reduced their dependence on the domestic market that they have been able to take advantage

of the global recovery. Those still heavily dependent on the French market have had more difficulty.

2.3.2. Offshoring

While it has been claimed that deindustrialization can be linked directly to offshoring, research has shown that no direct causal relationship between the two phenomena can be established (Coris, 2012). The example of Germany is cited, where there has been a high level of offshoring to Eastern European countries, yet no evidence of deindustrialization. The relationship between labor costs, offshoring and deindustrialization is more complex than it might initially appear. Studies have shown that only between 1 and 6% of industrial job losses can be directly linked to offshoring. A much greater role is played by international competition and the inability of French industry to respond to the challenges of the global marketplace (Coris, 2012).

Leaving aside the question of whether or not offshoring is the cause of deindustrialization, there are different approaches to the phenomenon of offshoring itself. The first is that it simply represents the normal economic process of the extension of value chains, as companies confide an increasing part of their activities to external providers (Cohen and Buiges, 2014). The second sees offshoring as part of the continuing process whereby corporations extract surplus value and exploit workers both in the West and in developing countries (Urry, 2014; Hart Landsberg, 2013). A third approach sees offshoring as now part of the growing trend towards what is known as the on demand economy (The Economist, 2015). In other words modern mobile communications technology has greatly facilitated the subcontracting of many aspects of work to service providers at a global level. Finally Schumpeterian economists would argue that the offshoring of production facilities *per se*, is not significant, as long as there is no commensurate decline in the potential to innovate and create added value domestically (Cohen and Buiges, 2014). It is common knowledge that very little added value in the manufacture of mobile phones, for example, is captured by the final assembly companies in China. The vast majority is obtained by the R&D, design and marketing activities located in the USA (Hart-Landsberg, 2013). Therefore from the perspective of a country's economy, offshoring of production may not be problematic, as long as the higher-end competencies of innovation and design are not also expatriated.

At the micro-economic or firm level, Luvison and Bendixen (2011) argue that there are three outsourcing paradoxes. The first is that while organizational expediency may be improved, managerial complexity will also be increased. Firms will have reduced operational costs and infrastructure but the coordination of globally dispersed activities will require new management capabilities and resources. The second paradox is that to obtain efficiencies from the outsourcing process companies need to learn how to manage these new inter-firm relationships; skills which small firms are less likely to possess. The last paradox is that while the flexibility of the firm may be improved the competitive capabilities of the firm can also be reduced. Losing internal know-how can lead to a weaker position when those functions need to be reintegrated, should circumstances change.

2.3.3. Large firms internationalize

The large corporations of the CAC 40 (the top 40 companies listed on the French stock market) have steadily expanded their activities beyond French borders in the last 30 years. In 2011, 72% of their global turnover was achieved internationally. 10 of these 40 companies obtain more than 90% of their turnover overseas, including STMicroelectronics, Michelin, Schneider Electric, EADS and Sanofi. In terms of employment too, only 6 of the CAC 40 companies employ less than 50% of their staff outside France. Lafarge, Essilor, L'Oréal, Danone and Arcelor Mittal all have more than 90% of their employees working abroad (Ernst and Young, 2012).

The trend for these large companies is more and more in the direction of internationalization. Peugeot, for example now sells more cars in China than it does in France. Asia is the region of the world where these leading French companies are growing fastest (Ernst and Young, 2012). Combined with this expansion in foreign markets has come a decline in domestic production. In 2012 Renault, for example, produced half the amount of cars in France that they produced in 2005. The well-established international presence of the large and successful French corporations contrasts strongly with the more mixed experiences of their smaller cousins. Indeed in 2013 the editor of "Les Echos" concluded that: "never has the gap between

the heavyweights of the CAC 40 and the remainder of French companies been so flagrant”⁴ (Les Echos, 2013a).

2.4. Agriculture in France

France is the leading agricultural producer of cereal and dairy products in Europe. The growing internationalization of agriculture, from 13.6% of total sales outside France in 1961 to 36% in 2011, reflects the growth of agricultural exports as a % of French GDP over the same period (Abis and Pouch, 2013). Certain sectors (dairy products, cereals, wine and beverages) have performed consistently better than others on the export market showing marked trade surpluses. The European Common Agricultural Policy (CAP), introduced in 1961, has been the decisive factor behind the success of French agriculture and has had a dramatic effect on its specialization and orientation: when subsidies are reduced for one activity, farmers switch to another.

France holds a comparative advantage in agricultural products. A comparative advantage is measured by evaluating the contribution of a sector to a country’s trade balance (Lafay, 2006). The advantage in agricultural produce has been steadily rising since the 1970’s and in 2010 was the second most successful contributor to France’s trade balance.

Yet in a global economy, the comparative advantage that France has obtained in agriculture cannot be taken for granted. Competition from the emerging economies is growing. Brazil, for example, between 1990 and 2010 increased its export of food products (soya, beef, poultry, sugar, maize etc.) by 450%. Other countries are also developing their agricultural industries. For example, in 2012 India became the world’s leading exporter of meat, principally through sales of buffalo, to meet growing demand in Asia and the Middle East (Abis and Pouch, 2013).

Furthermore the economic crisis which erupted in 2008 impacted heavily on agricultural raw material markets causing global price rises. As a result farmers’ incomes in France have been highly unstable. On average after a rise in incomes in the three previous years, 2013 saw a decline of 18.6%. There are large variations from sector to sector, with cereals the most

⁴ Translated from : « *Jamais le décalage entre les poids lourds du CAC 40 et le reste des entreprises françaises n’a été aussi flagrantes.* »

severely affected with an average fall in 2013 of 57.3%, followed by the poultry sector with a fall of 36.6% (Analyses et perspectives, Economie Agricole, 2013). The reason for the decline in the cereal sector is due to global over production and excessive stocks. Clearly, this variation in the fortunes of farmers in France has an impact on their demand for agricultural machinery and consequently if machinery manufacturers can rely less on the domestic market, there is more of an impetus to seek new markets abroad.

Agriculture in France is characterized by two other key trends. Firstly as a result of encroaching urbanization, the agricultural land available for cultivation has slowly declined over the years from 34.4 million hectares in 1950 to 29.3 million hectares in 2009 (Abis and Pouch, 2012). Secondly the number of large farms is growing and there are fewer farms of less than 100 hectares: a trend explained by the retirement of farmers and the sale of their land. In 1955, there were 2.3 million farms in France, whereas in 2003 there were only 590,000 (Desriers, 2007). Part of the reason for this decline in the number of farms is undoubtedly the development and imposition of European hygiene standards, which have led to the virtual eradication of the peasant farmer:

“[...] the hygienists have delivered the final blow to the last mountain farms, which will soon be reduced to a few images in museums of arts and popular traditions [...] The typical farm, adapted to the conditions of each county, has closed its doors, in favour of an intensive production concentrated on the plains and connected to global markets”⁵ (Le Monde diplomatique, 2016, p.2).

These trends towards the growth in size and reduction in numbers of farms are matched by similar patterns in the agricultural machinery sector, as is shown in the following section of this chapter which focuses on the histories of two manufacturers in the region of north-west France that closed.

⁵ Translated from : « [...] les hygiénistes se chargent de donner le coup de grâce aux dernières fermes de montagne, qui se réduiront bientôt à quelques images dans les musées des arts et traditions populaires [...] La ferme typique, adaptée aux conditions de chaque contrée, a fermé ses portes au profit d’une production intensive concentrée dans les plaines et connectée aux marchés mondiaux ».

2.5. Two agricultural machinery firms that closed

2.5.1. Huard in Chateaubriant

In 1987 “La Maison Huard”, a manufacturer of ploughs in Chateaubriant, north-west France, closed. It was founded in 1863 and located in the centre of the medium-sized town of Chateaubriant. Over a period of 3 years up to 1987, 700 people lost their jobs. In 1964 at the high point of the firm there were 1,648 employees (Bouvet, 2005) in a town with a population of around 11,000 people. It was the second biggest employer in the region after Citroën in Rennes and the leading plough manufacturer in France with over 50% of market share. Huard was a paternalistic, family-owned company that grew rapidly in the immediate post-WW1 period through its patented innovative animal-drawn ploughs. Its success during ‘Les Trentes Glorieuses’ (the thirty years after the WWII) was based on a growing domestic market and the bringing to market of successful and technically advanced tractor-drawn ploughs as a result of investment in research and development. The growth in annual turnover during the 1950’s was astonishing (43% in 1956 and 44% in 1957). This led to the slogan: *Chateaubriant, capital of the plough!*

Although exports never exceeded 10% of turnover and were mainly to ex-French colonies and some to the UK and Germany, the sales department at the national level functioned well: to the extent that in 1966, 31,500 pieces of agricultural equipment were produced and sold. But the high point of the company in the mid 60’s was also the turning point. In 1967 after 40 years at the company two leading directors retired. Decisions over a move to a more modern site, the restructuring of the organization, the diversification of material and the development of an export market all required attention. At this time with the arrival on the large domestic market of foreign competitors, Huard needed to evolve a credible strategy to maintain its leading position. The economic crisis of the early 1970’s saw continuous annual reductions in the tonnage of ploughs sold.

The response was to restructure and to make the foundry an autonomous legal entity able to supply customers outside the sector. Initially the foundry proved successful but by the end of the 1970’s with a further economic crisis, sales began to decline. Similarly the main agricultural machinery manufacturing activity saw growth as a result of diversification of its products in the early 1970’s, but by the end of the decade, tonnage sales and profits had

dropped significantly. Between 1975 and 1984 Huard's share of tonnage sales of ploughs, its principal product, in France fell from 42.5% to 32.6%. (Bouvet, 2005)

In the 1980's debts rose, investment was considerably reduced at a time when four major trends had to be faced: an increase in the size of farms meant that larger tractors requiring larger machinery were in demand; more reactive foreign competitors were entering the French market; some existing traditional equipment was losing its profitability; there was now in France an overcapacity of forge work, the main skilled value-adding work of Huard, and many assemblers of machinery were beginning to subcontract to save costs. In 1986 Huard went into liquidation and in 1987 the Tribunal of Nantes ordered the transfer of the company to a Swiss firm, which maintains the activity to the present day with a workforce of 360 people.

2.5.2. Garnier in Redon

Garnier, located in Redon, was started in 1862 and produced a wide range of agricultural machines from apple presses to combine harvesters. Like Huard, the factory was located in the centre of the town. In the case of Garnier this was in the port area of the town which is at a logistic crossroads of canal, river, rail and road. By the end of the 1960's Garnier employed 900 people: "*Garnier was Redon. Redon was Garnier,*" (E. Lahaye, local historian and retired Trade Unionist. Interview with author, January 2016). Generations of families had worked in the same factory.

The same paternalism was also found here. It was reported that every potential new recruit to the company had to pass an interview with the Director, Auguste Garnier. Employees had confidence in and respect for the boss. Auguste Garnier died in 1966 and the firm was taken over by his son, an engineer.

There was a foundry at the site and so a great deal of the iron working was carried out in Redon. Supplies of coal came from England and Belgium and were carried up the river Vilaine to the inland port of Redon. Indeed the history of industrial Redon dates back to the creation of rail, canal and port infrastructures in the mid-nineteenth century and was the main reason that Garnier transferred its activity from the regional capital of Rennes to the small town of Redon in the nineteenth century.

Customers were to be found all over France. In the early 1960's the straw bale-making machine was a great success with between 3,500 and 4,000 produced per year and these machines were transported daily from the factory to the train station for dispatch to all regions of France. The Transport Manager of the time reported:

"I dealt with transport: three wagons per day and two lorries per week. We sent machines throughout France and even abroad to Italy. There was no export department. I dealt with everything. We had depots in Lyon, Toulouse and Rouen."
(Mémoires Vives en Pays de Redon, 2006, p29)

After filing for bankruptcy, Garnier finally closed its gates in 1980 (Crolas, 2013). The reasons for the closure of Garnier can be traced back to its period of great success in the early 1960's. At this time it was recognized as the regional leader in agricultural machinery and the high point for the firm was probably the centenary celebrations in 1962 when the whole town of Redon attended a large festival. In particular, M. Lahaye cites several reasons for the closure of Garnier:

"Certainly the company did not modernize itself early enough. It continued to employ cheap labour from rural areas, who were then trained and since there was easy access to cheap labour the company did not seek to invest in new machinery. And then there is also globalization that had already started and all of this happened very quickly. There was a moment when Garnier was on top at the beginning of the 60's, when it was producing equipment that responded to the demand, but it quickly found itself competing against other, in particular American, companies which were already ahead in terms of technology" (E. Lahaye).

The lack of investment in new machinery, one of the seeds of its eventual destruction, is also reported in the DVD of the history of the firm which recounts that even in the early 1960's M. Garnier was buying second hand machinery. The poor quality of equipment was summarized by one ex-employee in the DVD: *"We had got into the habit of doing everything with nothing."* (Garnier à Redon...Des machines et des hommes, 2006) Furthermore at the end of the 1960's a process of land consolidation began in France, which meant that farms became larger and a demand for more efficient machinery developed. The international conjuncture of the time, including the petrol shock of the early 70's also played a role. M. Lahaye argues that

it was an error not to create and support an agricultural machinery *filière* as a strategic sector in France. At the time Renault produced tractors and such a leading manufacturer could have helped to develop the sector through favouring certain suppliers and offering a range of machines manufactured by companies like Garnier. This was not done. As a result the smaller companies did not have the necessary force to combat the new arrivals on French soil. The experience of these smaller companies was that they were unsupported during this transitional period. In Italy, by contrast, Fiat led a grouping of associated agricultural machinery companies to develop an effective national industry.

The difficulties that Garnier faced were spread out over the decade of the 1970's with a succession of changes of owners, protests, demonstrations and redundancies, culminating in the blockade of the town of Redon in July 1979, when production was finally stopped. After the remaining 400 workers were made redundant, the factory was occupied for almost one year. In the 1980's Redon, which had been an industrial town was severely affected not just by the closure of Garnier, but also by the slowdown experienced by many other manufacturing firms. This was described as a human catastrophe for the town of Redon. Given the fact that the directors of Garnier and other manufacturers of agricultural machinery in the region were recognized and reputed, M. Lahaye reflected on the reasons for the failure of these companies thus:

“We can ask ourselves whether there was something missing: such that at a given moment they could have developed their companies more or perhaps that they didn't decide to specialize” (E. Lahaye).

2.6. The modern French agricultural machinery sector

As has been shown in Chapter 2.5., the agricultural machinery sector in north-west France has been subject to significant transformations over the last 50 years. These changes can be summarized as a consolidation and concentration of the sector and the arrival of foreign firms on the domestic market, thereby increasing competition. Indeed the three largest manufacturers of tractors in France (Agco, John Deere and CNH) with 70% of the market are not French (Xerfi, 2012). The sector has declined from over 700 agro-equipment manufacturers in 2000 to 540 today, which employ around 40,000 people (Les Echos, 2015). And if we go back to the 1980's, the decline has been even more drastic. The director of one agricultural machinery manufacturer pointed out that 40 years ago most rural communes in

France (there are approximately 35,000) would have had their own garage/manufacturer/repairer of farming equipment.

France has lost its dominant position in this sector and is now the third largest European manufacturer with an annual turnover of 4.4€billion (Les Echos, 2015). France has not produced the leading companies to take advantage of what is a growing global market for agricultural machinery. Today Swiss (Kuhn), German (Claas), American (John Deere & Agco), Dutch (CNH Global), Japanese (Kubota) and Italian (Same Deutz-Fahr) companies dominate the sector in France. The French agricultural machinery company with the largest turnover, Exel Industries, a manufacturer of irrigation systems, is ranked 7th (Xerfi, 2012).

The modern agricultural machinery sector produces machines that are increasingly complex and equipped with hydraulics, IT systems and electronics. With satellite maps that direct farmers to the unfertilized parts of a field and the driverless cabin, technology has revolutionized agriculture. Demand for food is rising and global food production must increase by between 70% and 100% by 2050 to meet the requirements of a world population of 9 billion (FAO, 2009).

With a trend towards farm consolidation and the growth of cooperatives, European farmers are more able to invest in new machinery and consequently both demand and prices are high. The European market for agricultural machinery is the largest in the world and represents one third of the global market. Demand is subject to variations according to seasons and weather patterns. Outside the European Union, where demand is bolstered by the Common Agricultural Policy, the market can be characterized by high volatility affecting forecast accuracy. Between 2010 and 2011 the European market grew by 15%. However the SMEs in this research have export levels of between 0% and 65% of turnover, demonstrating a highly variable export performance compared to that of the larger companies in France. In 2013, France exported 68% of the value of its production of agricultural machinery (3 billion€). However, imports in the same year amounted to 4.6 billion€. This shows that foreign manufacturers provide strong competition on French soil (Axema, 2014). Of the 540 manufacturers in the sector, approximately 230 export and the greatest volumes are achieved by the largest companies such as Agco, Claas, Kubota and Kühn (IRSTEA, 2014).

Indeed the protection offered by the domestic market means that companies are not sufficiently incited to develop their export activity. A report by the French Ministry of Agriculture, entitled: “Define together the future of the agro-equipment sector” (IRSTEA, 2014), describes a sector which has difficulty in bringing together research institutes and companies for joint projects. The report also notes an absence of working in clusters, as for example Italian companies do, and a lack of awareness of regional and government aid available for innovation. This has led the region of the “Pays de la Loire” in north-west France to launch a platform for innovation research involving some of the major companies such as Claas, Manitou, Kverneland and Agco. The region is investing 10 million€ in this test centre project which will enable companies to mutualize research efforts rather than carry out trials on an individual basis (Usine Nouvelle, 2015).

The regions of north-west France possess a relatively high number of SMEs in the agricultural machinery sector and a large percentage of total employees. For example, in the regions of Pays de la Loire and Brittany, 20,000 people are employed in companies with annual turnovers amounting to 9 billion€ (Ouest France, 2015).

2.7. Regional factors: Brittany, North West France

This thesis concentrates on the region of Brittany, although it is not an exclusive focus since SMEs in the agricultural machinery sector outside Brittany, in the neighbouring regions of the Vendée and Normandy (in what is referred to in France as *‘le Grand Ouest’*) are also included. However Brittany has some particular features which it is important to highlight to gain an understanding of the challenges facing the companies studied.

At the end of the 1950’s the large majority of the Breton population lived on very small farms, which were self-sufficient and supplied local markets. In the 1960’s with the arrival of mechanization and the concentration of farms, a rural exodus took place. Today as many people work in the food industry, upstream and downstream of farms, as work in agriculture itself – approximately 80,000. One out of every two pigs in France and one in three chickens originate in Brittany. The region is also a large producer of dairy produce, meat, eggs, cereals and vegetables, not only for the domestic market, but also for export. In total the agricultural sector and related activities comprise 40% of employment in Brittany. (Alternatives Economiques, 2013).

The soil in Brittany is relatively poor, compared to that of Normandy, for example and therefore requires fertilizers, resulting in high levels of nitrates in rivers and green algae on beaches. Indeed Breton agriculture is cited as a classic case of negative externalities. In this case there are unfortunate consequences for tourists and residents as a result of decisions taken by farmers, grant making bodies and local authorities (Alternatives Economiques, 2013).

In recent history Brittany has been pushed in the direction of producing for the low end of the market. Pork and chicken production have grown enormously. The population of pigs in Brittany is said to be higher than the population of people. However the abattoir GAD recently closed a site with the loss of 900 jobs, because of falling demand for pork and also because of cheap competition from German abattoirs. The threatened closures of the two leading poultry abattoirs in Brittany in 2013 (Doux and Tilly Sabco), with the potential loss of nearly 2000 jobs, is linked to both the sudden removal of European subsidy to export to the Middle East and direct competition from Brazilian producers (Alternatives Economiques, 2013).

The remaining two main sectors of activity in Brittany are the automobile sector (PSA Citroen in Rennes is the largest employer in the region, although currently threatened with restructuring) and telecommunications. Industry provides 14% of employment in the region which is higher than the national average (CCI Bretagne, 2014). In terms of employment generally in Brittany, in 2013 the region holds the distinction of having created more employment than any of the other French regions apart from the Paris area, yet also having lost more jobs than any other. In the crisis years of 2009 to 2013 Brittany ranked 9th out of the 23 French regions (Alternatives Economiques, 2013).

The importance of the food industry in Brittany can be gauged by the fact that it is the leading exporting sector, in terms of value, with 36.5% of Breton exports (CCI Bretagne, 2014). However it suffers from four key disadvantages: too high labour costs, positioning at the bottom range of the market, dependence on European subsidies and low profit margins. Added to this it is geographically located on the outskirts of Europe and therefore relies on good transport links, in particular road transportation. For all these reasons Le Boucher (Les Echos, 2013c) concludes that Brittany has pursued a bottom of the range economic strategy

and the future now lies with top of the range products and high value added. Its future has to be reinvented.

Towards the end of 2013, Breton protestors, known as ‘les bonnets rouges’, took to the streets to complain about factory closures and the ‘ecotaxe’. This tax, which was aimed at discouraging unnecessary goods transport by road and developing green alternatives, has subsequently been suspended by the government. The protestors destroyed porticoes built across motorways to monitor transport movements. One of the curious features of these protests is that they included workers, managers and local representatives in a show of regional solidarity (Nouvel Observateur, 2014).

Demonstrations erupted again in 2016 as farmers protested against the prices dictated by supermarkets for their agricultural products and also against cheap European imports. In particular the pork and dairy sectors, staples of the Breton economy, suffer from a crisis of overproduction (Les Echos, 2016c). The Breton economic model appears fragile, uncompetitive and excessively reliant on decisions taken elsewhere in Europe. Farmers, at the center of the Breton food supply chain, remain increasingly caught between monopolistic suppliers and monopsonistic purchasers, leaving increasingly low margins and their survival in doubt.

2.8. Conclusion

This chapter opened with an extract from Strauss and Corbin (1998) that expressed the importance of understanding context at both macro and micro level in conducting research. Here we have considered macro level changes to the French economy and society but also micro changes to specific companies in the agricultural machinery sector. The reason for this is that macro contextual factors often interact with micro phenomena and can help in the explanation of changes and developments.

What can we retain from this chapter? The key point is that France, like other developed Western economies, has been undergoing dramatic changes to its industrial structure over the last 50 years: deindustrialization, unemployment etc. However France has its own particular cultural, historical and social setting, which means that globalisation has had a disturbing impact on local and regional attachments and consequently the ‘global’ may be viewed with reticence, hesitation or suspicion. The challenges faced by the region of Brittany, as a result of

its dependence on bottom of the range agricultural produce, overproduction and monopsonistic distributors add further dimensions to the contextual mix. Furthermore, over the last 50 years, the agricultural machinery sector, itself, has been transformed from large paternalistic, craft production based firms, dependent on domestic markets and small farmers, to foreign owned larger firms and some remaining French smaller firms trying to maintain and develop market share in a globalised marketplace.

With this background in mind, it is clear that the SMEs in this study are operating in an environment where many farming equipment manufacturers have gone out of business in recent years, margins are tight, competition on the domestic market is ever present, the French context is particular and perhaps most importantly there is a pressing need to internationalize. Given that, on the surface, what has been outlined in this chapter appears to be an unfavourable context for internationalization, it is reasonable to ask how SMEs in this sector do, in fact, manage their global supply chains. The research question (how do French SMEs in the agricultural machinery sector manage their global supply chains?) is then driven by, what could be termed, a contextual gap: in other words the context appears to militate against successful management of the global supply chain. Despite this unfavourable context a priori there are some firms that are managing their global supply chains and increasing their level of internationalization. In the search for explanations to this phenomenon of international inter-firm relationships developing (or not) in adverse circumstances, reference needs to be made to a body of theories related to supply chain management. These theories are as follows: transaction cost theory, because it addresses the question of how to minimize transaction costs, which are clearly incurred in the course of international exchange; agency theory because it poses the question of how a principal can obtain a reliable service from an agent and offers solutions; network theory because small firms operate in and can progress through their participation in both formal and informal networks; power and resources in supply chains because SMEs are known to operate in the context of power asymmetries and limited resources; governance theory, because it concerns the different ways of organising supply chains. At the same time reference needs to be made to internationalization theory from the international business literature, since these SMEs are involved in a process of internationalization of their upstream and downstream activities.

The following chapter reviews the literature against the background of this contextual gap and considers those themes, which at least initially, are seen as most likely to be helpful in providing answers to the research question.

Chapter 3. Literature Review

3.1. Introduction

The subject of this thesis, SMEs and global supply chains in the agricultural machinery sector in north-west France, covers two main academic disciplines: supply chain management and international business. This is because the research question of the thesis is how SMEs in the French agricultural machinery sector manage their global supply chains and therefore relates to external relationships with suppliers, customers and networks at the global level. Consequently a wide approach to the literature has been taken to include those theoretical approaches that could provide insight into the subject studied and hence prove useful. This chapter begins with an examination of the internationalization of SMEs (3.2) and then there is specific reference to the internationalization of French SMEs (3.2.1). In section 3.3 the focus is on supply chain management and the most relevant theoretical contributions are discussed in detail. Firstly the question of SMEs and supply chain management is considered. Then the following theories are addressed and related to SMEs: Transaction cost theory, Global sourcing, Agency theory, Embeddedness theory, Network theory, power and resources in supply chains, and Governance theory. Finally a summary draws together these different strands.

Two academics have strongly influenced the development of thinking in relation to this research and are cited in section 3.3 of this literature review. Firstly Granovetter who over more than thirty years has published five key papers (relevant to this thesis) in the fields of small firms, socioeconomic and network theory: “The strength of weak ties” (1973), “Small is bountiful: labor markets and establishment size” (1984), “Economic action and social structure: the problem of embeddedness” (1985), “Economic institutions as social constructions: a framework for analysis” (1992) and “The impact of social structure on economic outcomes” (2005). Secondly, Cox, who in a short space of time published four key texts on power, markets and supply chains: “Business Success” in 1997, an article entitled “Power, value and supply chain management” in 1999, “Supply Chains, Markets and Power: Mapping buyer and supplier power regimes” (Cox et al., 2002) and “The art of the possible: Relationship management in power regimes and supply chains (2004).

3.2. SMEs and Internationalization

What is the definition of a small and medium sized enterprise (SME)? A general definition would refer to the fact that it is an independent firm, not dominant in its field and has limited resources compared to other firms in the market (Street and Cameron, 2007). The European Commission (2016) definition of an SME is an organisation that employs less than 250 staff and has an annual turnover of less than 50 million euros.

Internationalization is defined as the process of entering international markets for the purpose of undertaking value-creating activities (Jones et al, 2009). In terms of the internationalization process itself, Johanson and Vahlne (1977) developed the Uppsala model based on empirical observations of Swedish firms. These firms began internationalization by ad hoc exporting, followed by deals with foreign intermediaries. With the growth in foreign sales, agents were replaced by their own sales organizations and this process culminated in setting up manufacturing activities in foreign markets. The other key feature of this model was that the process of internationalization usually began in markets which were close in terms of psychic distance: easily understood foreign environments. These firms can be described as “born locals”, in that their original business activities were located in domestic markets, before they began to internationalize. (Born local firms are the focus of this study.) Subsequently Johanson and Vahlne (2009) updated this model to include companies which begin their activities globally (“born globals”).

Thus two different routes for SME internationalization can be identified: the first, “born local” is a progressive process starting with exporting and then moving on to the more involved stages of Foreign Direct Investment (FDI) and the establishment or acquisition of subsidiaries and the second, “born global” is where the orientation of an SME is international from the founding of the company. Researchers have also found that SMEs may “piggyback” on larger multinational companies in the domestic market to gain access to international markets (Bradley et al, 2006).

The literature defines different models of the effect of internationalization on the performance of a company (Amelon and Cardebat, 2010). The first is that there is a linear and positive impact and that companies draw various benefits including becoming “learning” organizations. A second model is that there is initially a positive effect on performance but that over time the rate of increase in performance slows.

A third model shows performance being adversely affected at the beginning of the internationalization process but then regaining impetus. Based on the international experience of German companies, researchers found that initially, companies experienced negative effects on performance as they accessed unfamiliar markets, but progressively they acquired skills necessary to adapt to these markets so that performance improved. A fourth model considers that internationalization may initially increase profits but that costs of communication and coordination will rise. Geographical diversification, complex operations and cultural differences can result in the costs of internationalization exceeding profits gained (Geringer et al, 1989).

The link between productivity and internationalization is interesting and suggests that only the most productive firms enter into the export market. A self-selection process is at work so that companies increase productivity levels before beginning to export through making necessary investments (Eliasson et al., 2012; Love and Roper, 2015). Findings about the effects of exporting on performance are more mixed. Pangarkar (2008), in his literature review, finds it difficult to conclude that internationalization leads to better performance for SMEs. This is explained by two main factors: first that there is little uniformity of measurement and secondly the results obtained in the research are inconsistent. However a study of Spanish SMEs found that exporting firms had a significantly lower likelihood of failure than those firms that did not export (Esteve-Perez et al., 2008).

In a study of 164 Japanese SMEs researchers found that: “the positive impact of internationalization on performance extends primarily from the extent of a firm’s FDI activity” (Lu and Beamish, 2001). They also found what is described as a “liability of foreignness” (Denk et al, 2012b); the initial experiences of SMEs abroad had a negative impact on profitability, yet higher performance is associated with increased levels of FDI. Furthermore alliances with local partners can prove to be useful in mitigating the effects of a lack of resources and knowledge. Advances in information technology moderate some of the costs posed by distance (Lin et al, 2011).

Interestingly from the perspective of this research project it should be noted that in a survey of 978 SMEs (OECD, 2008: 46), ‘obtaining reliable foreign representation’ was ranked the most important barrier to internationalization. This finding highlights the challenge that SMEs face

in extending their supply and distribution networks beyond borders and in particular the agency problem of securing good service from a distant partner.

3.2.1. French SMEs and internationalization

A recent study of 938 French companies (Euler Hermes, 2012) shows that while SMEs represented 75% of exporting companies in 2010, by 2012 this figure had declined to 61%. The number of exporting SMEs has declined from 120,000 ten years ago to around 90,000 today and their activity only represents 18% of the total turnover obtained by French companies outside France. Furthermore the number of French companies that are launching themselves into the export market has declined from 25,000 in 2000 to 17000 in 2010 according to figures from French customs and only 10% of the new exporters in 2005 were still active in 2012. The primary casualties of this export failure are SMEs, since three out of every four new exporters employ less than 20 staff (Le Monde, 2012). Another study conducted by the Paris Chambers of Commerce showed that only one in every three SMEs that start to export in year one, will still be doing so in year two (Les Echos, 2014).

The reasons for this poor performance, according to François Roubeaud, president of the CGPME (an employers' organization representing SMEs) can be attributed to the fact that the French entrepreneurial culture does not spontaneously lead SMEs to turn towards exports. It does not seem 'natural' to French companies. Lorenzo Cornuault, a spokesperson for Ubifrance, a state funded organization which helps French companies to export, says that SMEs often lack a manager who specializes in international work and they lack the necessary structures and sufficient financial resources (Logistiques Magazine, 2013). However the state and Ubifrance do not, themselves, lack resources. A report for the Minister of International Trade found that 600m€ of public money was allocated each year to support exporting companies, along with 2500 state employees and 1400 employees of the Chambers of Commerce both in France and abroad (Les Echos, 2014).

For small firms the challenge of developing an export market can be daunting: salesmen need to be employed, a reliable contact or agent in a foreign country hired, customs formalities understood and the product adapted to local requirements. The secret to success for a small firm may be in combining forces with other companies in the same situation. The Director of one French SME, which worked with four others to prospect in the Tunisian market, describes the advantages of co-operation:

“No small company can know the decision making circuits in a country. However by working with other companies, we can manage to open doors and also to save money by sharing spending”.⁶ (Dominique Parzy quoted in Le Monde, 2012).

In terms of the process of internationalization, the research by Euler Hermes (2012) shows that traditionally, SMEs operate in concentric circles: they begin by exporting to neighbouring countries and then move on to include other countries further afield. The crisis, however, has disrupted this pattern and led companies to seek markets at a greater distance, in particular Asia. Europe today only represents 59% of French SME exports compared to 70% ten years ago (Logistiques Magazine, 2013).

However research by KPMG (2012) shows that for exports by SMEs in France industrial and agricultural machinery is the fourth leading sector after aeronautics, the food industry and the chemical sector. Its share of SME exports declined slightly from 8.5% in 2002 to 8.3% in 2011.

French SMEs have proved themselves to be particularly successful in export markets in the areas of food products, especially wine and pharmaceuticals. In these sectors there are innovative small companies, which achieve 70 to 80% of their turnover from overseas sales. However for any company that launches into an export activity one of the primary concerns is logistical: “how do we move the goods from a to b?” Current practice seems to be predominantly that the customer organizes the collection and transport of the goods from the producer’s factory (ex-works). Yet this arrangement is not always in the interests of the SME vendor which can lose control of the transport process and the quality of the delivered goods (Logistiques Magazine, 2013).

3.3. Supply Chain Management

Supply chain management, as the name suggests, is based on the presupposition that supply chains are manageable and managed; that company performance, competitive advantage and profitability will be enhanced by integrating the partners throughout the supply chain and aligning their different objectives. A range of IT systems, logistics tools and performance

⁶ Translated from: « *Aucune petite entreprise ne connaît seule les circuits de décision dans un pays. Par contre, en s’associant avec d’autres entreprises, nous parvenons à ouvrir les bonnes portes. En plus d’économiser de l’argent grâce à une mutualisation des dépenses.* »

measures are prescribed in order to optimize flows, improve coordination and foster collaboration. To achieve these goals, governance of inter-firm relationships in the chain by the lead firm is recommended (Richey et al., 2010). Improvements are proposed and best practice is highlighted, so that supply chains work more effectively, because those improvements will in due course produce better results. The central proposition is that high performing supply chains lead to high performing companies (Sukati et al., 2013).

In practice, however, supply chains are frequently disorganized, subject to disruption, without effective risk assessment and displaying poor inter-firm communication and collaboration (Supply Management, 2013). Furthermore it can be argued that some modern supply chains are examples of Dionysian 'disorder'. For example the 2013 Horsemeat scandal showed that food supply chains were complex, intricate and that consumer and retail pressure led to a race to the bottom (New Statesman, 2013). In some cases supply chains remain uncoordinated, non-integrated and when they extend beyond immediate suppliers and customers, unknown and unseen (Carter et al., 2015). Mena et al. (2013) have noted a trend toward more complex and diverse supply chains,

There is also evidence to suggest that very few companies actually manage their supply chains. Research in the UK by the Manufacturer's organization (EEF) found that only 7% of companies that were surveyed actually monitored their entire supply chain, that 65% monitor Tier 1 suppliers only and that 15% of companies didn't monitor any partner in the supply chain. Of those companies which did monitor suppliers, the most popular feature monitored (95%) was adherence to deadlines and delivery performance (EEF report, 2012).

Despite the existence of the Supply Chain Management (SCM) academic discipline for more than thirty years, there is no agreed, clear definition: "...no consensus has been reached regarding a definition of SCM", (Gibson et al., 2005, p18). While in the 1990's definitions of SCM focused on the management of the supply chain from supplier to end user (Cooper et al, 1997), more recent definitions have tended to focus on the key word of "integration". Thus: "The phenomenon of integration may be considered SCM's focal concept of interest" (Frankel et al, 2008, p17). The discipline itself has been found to be characterised by idealism and fragmentation (Storey et al., 2006).

SCM is an overarching domain which is transversal and cross-functional and therefore integrates the activities of operations, purchasing, logistics and marketing (Frankel et al 2008). This suggests that SCM has a wider role than the management of linkages between different partners in a chain. However definitions of supply chain management differ. For example in France professionals in the supply chain sector often define a supply chain as a ‘*chaîne d’approvisionnement*’, which literally translates as a procurement chain: in other words the upstream information and physical flows.

Aside from the definitional problem, there is also a theoretical one, since there is no such thing as a unified theory of SCM (Halldorsson et al., 2007; Chicksand et al., 2012). One theory can be chosen as the key explanatory theory which is then complemented by others to provide additional perspectives. The conclusion of the paper by Halldorsson et al. is that it is not recommended to rely on one single theory in SCM and that several theories can be used to complement each other and eventually enhance explanations of SCM phenomena. In the following sections of the Literature Review, several theories are considered and then in Table 3.2 of this chapter the interconnections between these different theories are presented to draw the different threads together.

3.3.1. SMEs and SCM

Several studies have focused specifically on SMEs and SCM (Quayle, 2003; Arend and Wisner, 2005; Vaaland and Heide, 2007; Towers and Burnes, 2008; Bordonaba-Juste and Cambra-Fierro, 2009; Bayraktar et al, 2009; Didonet and Diaz, 2012; Palomero and Chalmeta, 2012; Thakkar et al., 2012; Jayaram et al., 2014). In the given context of asymmetry, we need to explore why the poor fit between SCM and SMEs exists (Arend and Wisner, 2005). What is it about SMEs that makes it more difficult for them to implement SCM good practice than in larger firms? Evidence suggests that there are three main reasons for this: SMEs do not act like larger firms; they tend to be slower in adopting new technology; and they tend to resist collaboration across the supply chain.

Firstly it has been argued and documented that small firms are different species to large firms: “Smaller business are not smaller versions of big business. Although both sizes of companies deal with many of the same issues, smaller businesses also deal with unique size related issues as well, and they behave differently in their analysis of, and interaction with, their environments” (Shuman and Seeger, 1986, p8). If this is the case, then *a priori* the way in

which SMEs manage their global supply chains will also be different. For example, Hessels and Parker (2013) found that, in the face of constraints, some SMEs are observed to grow as a result of collaborative informal relationships which maximize independence, rather than formal partnerships that maximize control.

Secondly there is a large gap in the adoption and implementation of SCM tools between large and small firms (Vaaland and Heide, 2007). SMEs have been found to lag far behind large firms in the technology and system adoption considered vital to sustain SCM implementation and hence competitiveness (Teller et al., 2012). Thirdly Arend and Wisner (2005) observed a general level of resistance on the part of SMEs when it came to collaborative approaches with regards to managing SC partners. When SMEs did adapt SCM practices, it was generally seen as something forced upon them by a more powerful SC partner (Quayle, 2003). This was evident despite the apparent benefits to SMEs of adopting innovative new practices and sharing information (Arend and Wisner, 2005; Kaminski et al., 2008; Didonet and Diaz, 2012).

If integration, defined as promoting the interconnection of relationships throughout the entire supply chain (Richey et al., 2010), is seen as beyond the capability of lead SMEs (Arend and Wisner, 2005), relationship governance may be a more achievable ambition, as it focuses on all the activities involved in maintaining and continuing immediate buyer-supplier relationships (Heide, 1994; Poppo and Zenger, 2002; Halldorsson and Skjott-Larsen, 2006). Switching the focus from relationships across the supply chain spectrum to those of a dyadic nature is arguably more relevant for research into SMEs, in particular since effective governance mechanisms provide stability to dyadic relationships (Benton and Maloni, 2005) and relationships have been found to ‘mean everything’ for SMEs (Fuller and Lewis, 2002).

However a simple focus on dyadic relationships is not a panacea for SMEs, given that customers have been found to prioritize transactional factors, such as availability, price and delivery over building relationships and that both dimensions of relationships and transactions lead to customer satisfaction (Grant, 2005).

3.3.2. Transaction cost analysis

One of the key theoretical roots of SCM is the debate about transaction costs, which are the legal, financial or managerial costs of doing business with a customer or supplier.

Transaction costs are central to SCM because they go to the heart of the question: how shall we organize the supply chain? Shall we perform a given activity in-house or shall we externalize it? How can we best minimize risks through an optimal organization of the supply chain? Do we make or buy? This is a key question that manufacturing SMEs are faced with: should we invest in new machinery and new capacity or should we outsource? What core activities do we need to maintain?

Williamson (1975) set out to formalize the earlier work of Coase (1937) on transaction cost economics. Coase had defined the problem of the firm as having to limit costs incurred through market transactions. Transaction cost theory is based on two key assumptions: bounded rationality and opportunism. Bounded rationality posits that decision-makers are limited in their capacity to act rationally because of human fallibility in terms of receiving, storing and communicating information: in other words, we make mistakes. In the extremely rare circumstance of unbounded rationality, however, every possible eventuality would be included in a supplier-buyer contract, thereby avoiding economic problems. Given that unbounded rationality is not the case, transaction costs have to be taken into account.

The second assumption of opportunism is based on a view of human nature, which claims that people will act in their own interest and with guile and deception. This gives rise to transaction costs, since companies will have to monitor behavior and put in place safeguards to make sure that the other party does not act opportunistically. For these reasons Williamson argued that internal hierarchical organization is preferable to contractual market relations:

“...internal organization often has attractive properties in that it permits the parties to deal with uncertainty/complexity in an adaptive, sequential fashion without incurring the the same types of opportunism hazards that market contracting would pose. Such adaptive, sequential decision processes economize greatly on bounded rationality” (Williamson, 1975, p25).

In the case of high asset specificity, costs are therefore created through the need to protect and safeguard against opportunistic behavior by means of legal contracts or sanctions. Williamson argued that these costs are best mitigated through internalization: through hierarchical organizations which can manage and contain the uncertainties of the marketplace. Williamson (1975) constructed a Hobbesian vision of economic actors who go beyond opportunistic self-serving actions to the point of malfeasance: “Agents who are skilled at dissembling realize

transactional advantages. Economic man...is thus a more subtle and devious creature than the usual self-interest seeking assumption reveals” (Williamson, 1975, p255). Williamson posed the problem that daily economic life is riddled with mistrust and dishonesty. This school of thought, termed new neoclassicism, sees existing legal, financial, political and social institutions as the solution that provides order to the economic jungle, just as Hobbes saw a strong sovereign as the solution to an anarchic conflict-ridden state of nature. These institutions render malfeasance too costly to engage in. Companies set up employment and business contracts to protect themselves against exploitation and to discourage malfeasance.

Transaction cost economics (TCE) therefore proposes vertical integration or formal inter-firm contracts as solutions to hazardous market relations. For an SME, however, both options are problematic. Integrating a supplier, for example, within the firm or developing detailed contracts for the supply of relatively small quantities may be unrealistic. This raises the questions of whether TCE is more appropriate analytical tool for large corporations than for smaller companies and whether alternative arrangements, such as trust, should be considered.

From the perspective of Economic Sociology, Granovetter (1985) criticizes Williamson’s conception of markets for being undersocialized and for failing to take into account the key consideration of trust:

“These conceptions are undersocialized in that they do not allow for the extent to which concrete personal relations and the obligations inherent in them discourage malfeasance, quite apart from institutional arrangements” (Granovetter, 1985, p48).

Granovetter goes on to argue that setting up these protective arrangements may actually be counterproductive, since people will attempt to find ways to avoid the restrictions imposed and deceitful behavior will ensue. Positing trust as the key to understanding market relations, Granovetter seeks to find its source. Is it a generalized morality? In some transactions we can find examples of moral behavior in exchanges between people who don’t know each other – tipping in restaurants for example. However, business executives have a clear preference for dealing with customers and suppliers of proven integrity and reputation, who are known personally to them. As a second choice the recommendation of a trusted acquaintance is invaluable.

The differences between Williamson and Granovetter in their conceptualizations of market relations are accentuated when they consider organizational forms. Williamson found that where transactions are uncertain, frequent and require considerable investment, they will take place in-house, whereas those that are relatively simple, one-off and standard will be carried out in the marketplace. In effect Williamson sees the authority-based relations inherent in corporate hierarchies as a means of controlling risk and taming the opportunistic behavior inherent in market transactions. The growth of large US motor corporations is one example of the vertical integration of suppliers within lead companies. Yet vertical integration is no guarantee of better communication and coordination. General Motors, for example, found it difficult to persuade internal divisions to share cost information across the corporation.

Granovetter on the other hand argues that Williamson's approach ignores the role that social relations play in dyadic inter-firm relations, especially at senior levels of the hierarchy. Trade Associations and business elites often settle disputes without recourse to lawyers and accountants. At lower levels of the hierarchy, purchaser and supplier interaction is often characterized by long-lasting relationships based on trust (Sako and Helper, 1998; Morrissey and Pittaway, 2006). Granovetter describes these relationships as examples of the "embeddedness of business in social relations". Governance of the supply chain by trust is therefore set up as an alternative. Here cultural specificity enters the debate. Researchers have found that Japanese companies are more predisposed to trusting their trading partners than American or British companies and that this difference is linked to supplier associations, that act as a protection against customer opportunism. These associations and after-hours business clubs are a strong feature of tight-knit Japanese society and culture (Sako and Helper, 1998).

Close customer-supplier relations are not exclusive to Japan and do not only have possible economic advantages. In the construction industry, Granovetter argues that the selection of a small number of suppliers...

"...must be related to the desire of individuals to derive pleasure from the social interaction that accompanies their daily work, a pleasure that would be considerably blunted by spot-market procedures requiring entirely new and strange work partners each day. As in other parts of economic life, the overlay of social relations on what may begin in purely economic transactions plays a crucial role" (Granovetter, 1985, p498).

In the literature on the firm, there is a wealth of research which cites employees’ lack of adherence to organizational goals, the inefficiencies of internal auditing (Dalton, 1959) and the in-company “horse-trading” processes of transfer pricing (Eccles, 1982): evidence that hierarchical organizations are not beacons of order and control. Granovetter cites evidence to show that:

“...even with complex transactions, a high level of order can often be found in the market - that is, across firm boundaries - and a correspondingly high level of disorder within the firm. Whether these occur...depends on the nature of personal relations and networks of relations between and within firms” (Granovetter, 1985, p502).

We can summarize the differences between the two schools of thought as in Table 2.1 below:

	Order	Disorder
Williamson (1975) Transaction cost economics theory	Hierarchical organizations operating vertical integration	Hobbesian Markets with high asset specificity
Granovetter (1985) “Embeddedness” theory	Markets and firms – depending on the structure of social relations and irrespective of organizational form	Markets and firms – depending on the structure of social relations and irrespective of organizational form

Table 3.1 Two different approaches to order and disorder in economic life.

Williamson’s argument that companies seek to minimize transaction costs through vertically integrating their supply chains has also been criticized for its lack of correspondence with the modern trend for networked firms, particularly in Asia:

“Thus, Williamson’s influential interpretation of the emergence of the large corporation as the best way to reduce uncertainty and minimize transaction costs, by internalizing transactions within the corporation, simply does not hold when confronted with the empirical evidence of the spectacular process of capitalist

development that took place in the Asian Pacific between the mid-1960s and the early 1990s, based on networks external to the corporation” (Castells, 2010, p206).

3.3.3. Global sourcing

Since the whole of the SME supply chain is being considered in this thesis from suppliers through to customers, it is necessary to discuss the literature relevant to sourcing, purchasing and procurement: in other words the organization of the upstream supply chain. We have seen that the “make or buy” decision can be addressed with the aid of transaction cost economics. However a further highly pertinent question is whether an SME should source locally or globally and more precisely for an industrial manufacturing company which components should be sourced from where: on what criteria should the sourcing decision be based?

Case study research has shown that the rationale for global as opposed to local sourcing is primarily founded on securing lower costs (Moncka and Trent, 1991; Nassimbeni, 2006; Holweg et al., 2011). However secondary reasons also feature, including: the possibility of developing a presence on a foreign market, reacting to the offshore sourcing practices of competitors, global attitudes of the firm and achieving resources not available domestically. Against these possible advantages need to be taken into account the possible risks: component delivery delays, poor quality of components, greater instability in the supply chain, the need for improved production planning and ordering of large quantities to achieve just-in-time global deliveries and economies of scale. Therefore companies are faced with a decision based on an evaluation of cost versus risk.

The political and economic changes in the last twenty years, including the reduction in trade barriers, China joining the World Trade Organization (WTO), improved global communication technology and falling transportation costs have all facilitated international trade and made global sourcing a more viable proposition. From a logistics perspective, however, the downside of this trend is the difficulty of combining global sourcing with just-in-time manufacturing. Economies of scale are achieved in global sourcing through large batch and full container loads, whereas just-in time delivery requires buyer-supplier proximity and frequent small batches. The long logistics lead times necessitated by long distance international transport render just-in-time production systems more difficult to implement.

Another constraint linked to global sourcing is that of costs. Case study research has shown that there is sometimes a disparity between expected cost savings from global sourcing and actual cost savings (Holweg et al., 2011). This is because certain costs are frequently not taken into consideration. These costs comprise a long list, including: search costs, agency fees, obsolescence due to long lead times, expedited shipments by air freight to meet shifts in demands, currency fluctuations, travel costs for personnel, loss of intellectual property. For SMEs, it could be argued that these dangers are amplified, given the lack of global reach that a small managerial team will be able to put in place in order to manage the risks of a geographically dispersed supply chain.

3.3.4. Agency Theory

Agency theory is of relevance to this thesis because it can be applied when considering downstream relationships with international distributors. An agent relationship occurs when the principal (a person or company) engages an agent (another person or company) to perform certain services on their behalf. There is a risk from the perspective of the principal that the agent will act in his own interest and not for the benefit of both parties:

“Therefore the theory identifies methods whereby the principal can help to ensure that a beneficial relationship exists. Incentives can be provided to the agent who performs in positive ways, while costs can be incurred when actions of the agent are not beneficial to the principal” (Stock, 1997, p527).

Discussions of agency theory consider conflicts of interest, opportunism, information asymmetry, agent selection, lack of effort, monitoring, sanctions, incentives and costs. In this study we are specifically interested in lack of effort by the agent or the risk of working with an agent (moral hazard). Solutions in agency theory to this problem are usually proposed in the design of appropriate contracts to protect the interests of the principal, based on a model where the agent chooses a level of effort that is unobserved and the principal offers a contract that links remuneration to performance. While agency theory seeks to address a multitude of different professional, social, political and economic circumstances, one reflection that can be made about all agent relations, without hesitation, is that there will be problems (Shapiro, 2005). Fayezi et al. (2012) have summarized the relevance of agency theory to supply chain management and its use in a number of studies.

For a principal there will be costs and risks in using an agent: for example, the risk that the agent will use organizational resources for his own benefit and the cost of mitigating such risks by gathering information about what the agent is doing. Therefore economic theory predicts that the principal will rarely be able to achieve the first-best outcome that occurs when there is information asymmetry, and will instead only reach the second-best outcome.

The solutions proposed by agency theory in the face of these difficulties focus on the development of contracts to govern the principal-agent relationship with the assumption of self-interested people and companies (Logan, 2000). Yet, interestingly from an SME perspective, agency theory solutions and assumptions can contribute to higher costs of implementing contracts and performance monitoring (Wright and Mukherji, 1999) and they may also hinder the development of constructive inter-firm relationships. This is confirmed by Macaulay's classic study of non-contractual business relations:

“Not only are contract and contract law not needed in many situations, their use may have, or may be thought to have, undesirable consequences. Detailed negotiated contracts can get in the way of creating good exchange relationships between business units...Businessmen may welcome a measure of vagueness in the obligations they assume so that they may negotiate matters in light of actual circumstances”, (Macaulay, 1963, p15).

Furthermore a transactional approach may run counter to SME practice, often based on reciprocity and trust, which themselves are best developed over time (Poppo and Zenger, 2002). Thus repeated exchange can provide information about partners and specifically about who to trust and who not to trust. Equally important is the work of game theoreticians who have shown that cooperative and trustworthy behavior in the present is encouraged by anticipated payoffs in the future (Baker et al., 2002).

3.3.5. Embeddedness theory

It is important to note that, for Granovetter, it is not the organizational form which is important in determining order or disorder in economic life, but the structure of social relations. This argument represents a significant break with the focus on transaction costs, because it maintains that networks of personal relations cannot be considered peripheral to either discussions of organizational form or eventually, by implication, as we shall see in this thesis, to the organization of the supply chain. Granovetter's embeddedness theory introduces

a social dimension to economic theory by arguing that economic action is rooted in social structure. His findings are that whether social ties foster or derail economic exchange, they have an impact worthy of consideration and further study.

Uzzi (1997) in his study of the New York garment industry took up this challenge and posited a continuum from an ideal-type atomistic market where exchange partners are linked by arm's length ties and motivated by self-interest, to embedded relationships based on personal ties. In his study of 23 companies in the women's apparel sector, he found evidence of two types of relationships: the first the interviewees described as "market relationships", described as deals in which costs are everything and the second "close or special relationships" distinguished by the personal nature of the business relationship. The special relations were fewer in number than the arm's length ones but they were also the most critical in business terms. Other differences found were that in the embedded relationships trust was essential, there was a lot of information sharing and joint problem solving and reciprocity and the use of favors were important. In the arm's length ties partners were monitored for opportunism, the end of a relationship was used as a solution to a problem and there was a push for the lowest possible price. Uzzi also found that for successful organizational performance neither the arm's length nor the embedded model of relationships should dominate. The most successful organizations operated an integrated approach so that both types of inter-firm relationships were employed across the range of suppliers and customers.

3.3.6. Network Theory

For networks to function, they require connectivity. Yet connectivity is a double-edged sword, as Monbiot (2010) points out while reflecting on a famine in Africa:

“[...]those people who had the fewest trading partners were hit hardest. Connectivity provided people with insurance: the wider the geographical area they could draw food from, the less they were hurt by a regional famine. But beyond a certain level, connectivity becomes a hazard. The longer and more complex the lines of communication and the more dependent we become on production and business elsewhere, the greater the potential for disruption.” (Monbiot, 2010)

The paradox of networks in the era of globalisation is that being connected and trading is essential for survival and development, but risks increase with complexity and increasing

numbers of geographically dispersed intermediaries. Nonetheless connections are important, but what are the different types of linkages and what are their different functions?

The key article by Granovetter (1973), entitled “The strength of weak ties”, made the argument that the most useful linkages in business relationships are not those that are well-known and well-established over the years, but those with contacts who are less well-known. The reason for this is that a contact with whom a manager has a strong, long-lasting relationship is less likely to bring new ideas or new information than someone who is outside his/her immediate network. Therefore to enhance the possibility of innovation and opportunity, Granovetter posited the hypothesis that weak ties are more likely to be useful than strong ties, since weak ties allow the possibility of connections to other social networks.

Subsequently several researchers have sought to test whether Granovetter’s hypothesis of the strength of weak ties can be confirmed by empirical evidence. For example in her qualitative research into small businesses in the Scottish Highlands, Jack (2005) found a more nuanced picture: strong ties remain important for business activity, they provide a link to the wider social context and act as a means to invoke weak ties. Therefore it is through the use of strong ties that access can be obtained to weak ties.

Any discussion of the organization of supply chains will need to consider the construction and form of the chain and the way in which the different partners interact in a network. In doing so, it is useful to employ an ideal type model. Thus empirical research suggests that there are three main constituents of efficient real world networks (Barabasi, 2003; Hearnshaw and Wilson, 2013) a short characteristic path length, a high clustering coefficient and the presence of a power law connectivity distribution.

Firstly in a supply chain a characteristic path length is the average number of tiers or firms between any two nodes chosen at random. So the longest characteristic path length would be between the raw materials supplier and the final customer and the shortest between a supplier and the immediate customer. A strategy of reducing the number of nodes in a supply chain, which may involve increasing physical distances between nodes, is therefore seen as an efficiency gain.

Secondly in supply chain network theory a high clustering coefficient means that there is a high clustering of triadic nodes. Research has shown that triads connected by information

flows improve collaboration and reduce opportunistic behavior: in other words sharing information with more than one partner helps supply chain efficiency (Choi and Wu, 2009).

The final constitutive element of an efficient network is a power law connectivity distribution. This refers to a small number of highly connected firms (hubs) and a large number of peripheral relatively unconnected firms. So for example we could say that the supermarket sector has a power law connectivity distribution with only a handful of major players (Tesco, Sainsbury's etc) and many small suppliers. Such a network is known as a "scale free" network.

Thus for network theory the fact that an SME has suppliers geographically dispersed does not necessarily reduce the efficiency of the network. What would reduce the efficiency is if the path length increases, when extra nodes (such as intermediaries or middlemen) are added to the chain.

Castells (2010) has described the emergence of the network enterprise, where due to rising barriers to entry in many sectors, cooperation and networking offer the best possibility of sharing costs and risks, in particular for small firms. The network firm is able to work with partners to innovate, while outside the network survival becomes more difficult. He presents the highly connected network firm as characteristic of the informational global economy. The role of information and information technology is key in responding rapidly to dynamic markets and small firms are often more flexible than top down hierarchies at responding to changes. In this model the operating unit becomes the business project, linking different firms together, and not, as previously, the individual firm.

3.3.7. Power and resources in supply chains

Power in supply chains is usually studied in the context of a large lead firm as the power source and a smaller supplier as the power target, both from the perspective of the SCM literature (Maloni and Benton, 2000; Nyaga et al, 2013) and from supply chain politics, which considers how the exercise of private corporate power affects the basic living and working conditions of supply chain participants (Macdonald, 2014). However it should be noted that the unequal distribution of power is only one aspect of inter-firm relationships, as there is always an element of mutual dependency and shared interests between partners (Kalantaridis and Vassilev, 2011). The Industrial Marketing and Purchasing Group (IMP) has studied

dyadic buyer-supplier relations and found that power asymmetries are not necessarily toxic: but as a constant presence, can be acceptable and workable (Hingley et al., 2015). Power is also relation and transaction specific. It cannot be stored and accumulated, but will vary according to the particular exchanges at any given moment in time (Coe and Yeung, 2015).

There is an inevitability of power asymmetry in supply chain relationships (no two firms are exactly the same size, possessing the same expertise and resources) and this may lead to the leveraging by the stronger party of its advantage over the weaker firm (Belaya et al., 2009). It is also important to stress the evolving, unfixed nature of power relations and that all actors possess the power to create, join or exit chains (Dicken et al., 2001). Nonetheless at the global scale these power asymmetries involving relationships with larger suppliers and customers present distinct challenges for SMEs.

Cox (1999, 2002) sees supply chains as areas of contestation, both vertically between suppliers and customers and also with competitors. He argues that supply chains are not only about the optimization of flows between the different partners, but are also a series of exchange relationships. He is interested in: “how variations in the power balance of these relationships affect the flow of value through the chain” (Cox, 2002: 4). Firms aim to leverage and capture value from both customers and suppliers. Furthermore firms seek to possess critical assets so that they can close markets to competitors. The concept of critical assets has similarities to the resource-based view outlined below. Both focus on those resources/assets that companies possess that distinguish them from competitors and hence require protection.

The resource-based view (RBV) (Barney, 1991) considers that certain resources that a firm possesses can make it more attractive to another firm and that the task of management is to protect those resources from outsiders and the risk of copying or takeover. Developing and specializing in processes rather than a single product can therefore help firms to protect their resources (Alvarez and Barney, 2001), since they may be less easy to copy. In the RBV model resources include both tangible and intangible assets. The expected outcomes from the development and retention of these resources within a firm would be improved performance and sales, competitive advantage and access to further resources.

While RBV considers resources from the perspective of the firm holding the resources, resource dependency theory considers the extent to which a firm is dependent on the

resources of another firm as critical (Pfeffer and Salancik, 1978). The more firm A (a small firm) is dependent on firm B's (a large firm) resources, the more firm A will adapt its behavior to meet firm B's expectations or requirements. Therefore resource dependency theory focuses on the control and power that the large firm has over the smaller one and maintains that it is less the internal forces of the small firm that are important in determining the nature of the relationship, but rather the degree of dominance of the larger one.

3.3.8. Governance Theory

This discussion of the importance of social factors in the organization of economic activity leads onto the area of inter-firm organization and chain governance. How are relations between firms organized, how have they changed over time, what are the governance structures of supply chains and how can they be conceptualized?

Gereffi (1994) made an important distinction between 'buyer-driven' and 'producer-driven' global commodity chains. An example of a buyer-driven commodity chain is the apparel industry where the chain is effectively controlled by lead multinationals (MNE'S) which subcontract garment manufacturing to small producers usually in developing countries. The automobile and aerospace industries are good examples of producer-driven chains since the lead manufacturer (Peugeot, Renault, Airbus etc.) exercises power and control over suppliers and distributors.

A further important study of the role and importance of inter-firm relationships was carried out by Sturgeon (2002) on this occasion into the electronics industry. Here he found that it was not trust, reputation or close ties that helped to enhance economies and efficiency, but the codification of knowledge and the respect of industry wide standards. Sturgeon presents a modular production network model situated firmly in the age of globalisation. In the 1970's and 80's the old model of the ever-expanding giant US corporation (Chandler, 1977) was beginning to break down in the face of competition from Asia. The growth of outsourcing had led to a "paradigm shift" in organizational structures and boundaries and resulted in a "deverticalized" industrial landscape. Non-core activities were beginning to be outsourced and the focus was on a company's core competencies.

Sturgeon's conceptualization of modular production systems was further developed by Gereffi, Humphrey and Sturgeon (2005) in an article entitled "The Governance of Global

Value Chains". Here five basic types of value chain governance were proposed (see Fig. 2.3): market, modular, relational, captive and hierarchy. What distinguishes the five types are the degrees of coordination and power asymmetry. At one extreme is the market where there is little or no coordination, power is evenly distributed between customers and suppliers and the market regulates exchange. With low complexity of information there is little need for codification. Next is the modular production system, as previously described by Sturgeon (2002), which relies on turnkey suppliers able to exchange highly complex information with a number of lead companies rapidly and with asset specificity reduced. These theoretical constructs are useful in identifying the role played by lead firms and the location of power and degrees of coordination in different value chains.

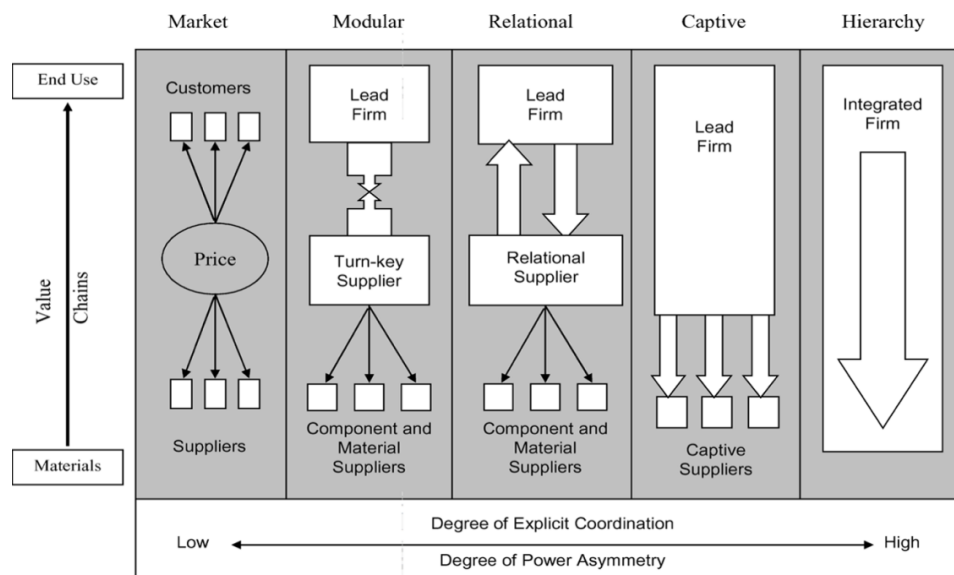


Fig.3.1. Five Basic Global Value Chain Governance types (Gereffi et al., 2005, p89).

Furthermore Gereffi identified three variables which characterize the transaction between supplier and customer in a supply chain – transaction complexity, transaction codifiability and the capability of the supply base in relation to the transaction. Mahutga (2011) takes this analysis further by examining the driving forces behind the establishment of these relationships in the first place.

One of the key insights of Global Value Chain (GVC) analysis is linked to the notion of competitive advantage. Thus a competitive lead firm:

“...is one that internalizes the activities within the lead firm for which it has the greatest perceived competitive advantage, and locates requisite external activities so as to maximize the perceived comparative advantage of alternative locations” (Mahutga, 2012, p6).

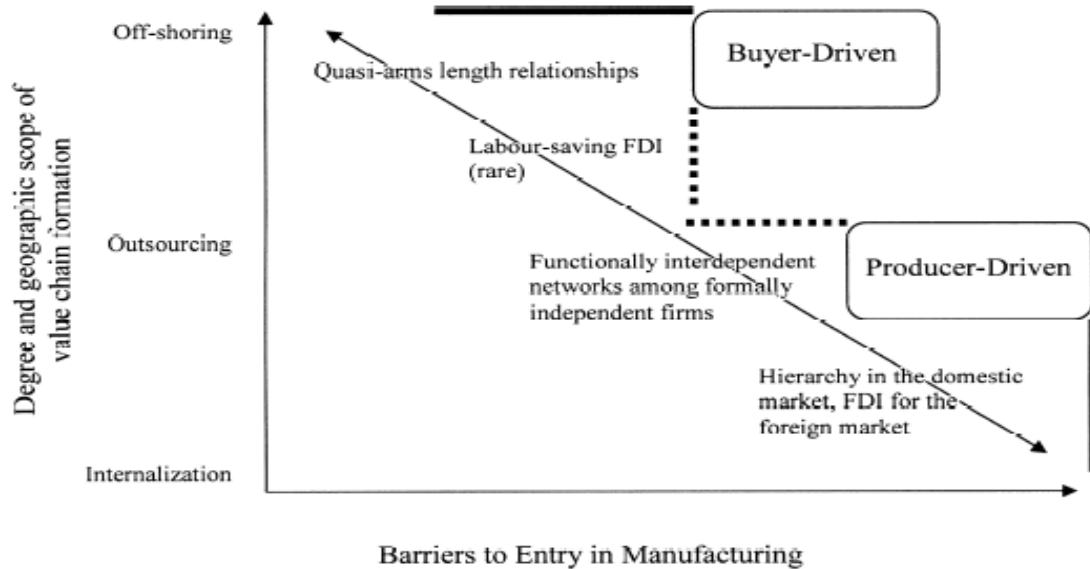


Fig.3.2. The relationship between the degree and geographic scope of global value chain formation and barriers to entry in manufacturing (Mahutga, 2012, p8).

Figure 3.4. adds the dimension of barriers to entry into the discussion and shows how in buyer-driven supply chains barriers to entry are low; relatively little investment in skills and technology is required to join a commodity chain and there are a number of potential suppliers. Yet in producer-driven commodity chains barriers to entry are high and require considerable investment in skills and technology. Buyer-driven chains are more likely to be offshored than the producer-driven ones. However none of these value chains are fixed. Research in the electronics industry shows that supplier companies in developing countries, through upgrading, have been able to develop skills, invest in technology and engage in higher value added activities, where barriers to entry are more demanding (Sturgeon, 2002).

The GVC governance model has been criticized for its narrow focus on one link in the chain (between lead firms and tier one suppliers) and for an absence of a broader conceptualization of power relations among all chain participants (Gibbon and Ponte, 2005; Bair, 2008).

Economic geography and in particular the ‘Manchester school’ on the other hand, has developed a Global Production Networks (GPN) paradigm which takes into account both the role of the state and takes a “relational and specifically geographic approach to the study of the global space-economy” (Hess and Yeung, 2006, p1196).

While the GVC approach has focused on value creation and governance in global chains, the GPN takes an approach which is based more on economic geography and political economy. Consequently the focus is also on the role of institutions as well as the societal and territorial embeddedness of production networks. For example, GPN studies use the concept of ‘strategic coupling’ to examine how and why lead firms set up, engage and disengage in particular areas (Coe and Yeung, 2015). Interestingly, GPN theory defines a lead firm in a globalized network as one which is able to exercise power and control over the network (Coe and Yeung, 2015, p45), which raises the question relevant to this thesis of whether these SMEs, although final assemblers, can be considered lead firms.

In the supply chain literature the constructs of geographic dispersion and channel governance have been used to analyze global supply chain structure (Stock et al., 2000). Geographic dispersion takes into account the locations of suppliers, production sites, distribution sites and customers in the supply chain. Channel governance refers to how the elements in the chain are governed and three possible constructs have been identified: market, network and hierarchy. Stock et al. (2000) found that companies which were part of a localized network structure or had integrated systems across firm boundaries (but not both) had better levels of financial and service performance. In other words where firms are embedded in network structures, impersonal IT relationships will not improve and indeed may hinder performance. They speculate that the reason for this is that interpersonal cooperative links are already in place in networked supply chains and that the additional organizational burdens of integrating systems could have negative outcomes. This could be particularly appropriate in the case of SMEs. On the other hand in the case of geographic dispersion, performance was found to be enhanced by integration of logistics and IT systems across distant firm boundaries.

Of the three types of chain governance (market, network and hierarchy) proposed by Stock et al. (2000), one might argue that the tendency for SMEs would be to prefer network type governance relationships, as justified by Granovetter: “The widespread preference for transacting with individuals of known reputation implies that few are actually content to rely

on either generalized morality or institutional arrangements to guard against trouble” (1985, p.490). If this is the case, then on the face of it, the global dispersion of supply chains could pose problems for SMEs in their governance arrangements as they often prefer to operate in known networks.

3.4. Conclusion

In section 3.2 of this chapter the business literature in relation to the internationalization of SMEs and the position of SMEs in France was examined. In section 3.3 of this chapter the academic literature relevant to the study of supply chain management was discussed with particular consideration given to how the different theories can be applied in the case of SMEs and global supply chains. Table 3.2 presents a summary of the different theories outlined in this chapter to demonstrate how each theory brings a different focus to the study of supply chains and how these theories can inform our understanding of SME global supply chains. Table 3.2 also clearly demonstrates the relevance of all five theories to this thesis. Transaction cost theory can be referred to when the question of in-house or outsourced production arises. Agency theory addresses the problem of how these SMEs can ensure a good service from foreign distributors and agents. Embeddedness and network theory informs thinking about the extent and role of local inter-firm linkages. The literature about power and resources helps to consider how the given context of asymmetries in global supply chains impacts these SMEs. And finally governance theory provides a framework for reflection on effective ways for SMEs to organize their supply chains. To conclude this review of the literature it is appropriate to repeat the assertion of Halldorsson et al. (2007) that in SCM, several theories can be used to complement each other and enhance our understanding of supply chain phenomena.

The subject of the thesis is therefore the specific situation of small lead firms in a given supply chain, managing relationships with distant globally dispersed partners. It is therefore appropriate that those inter-firm theories which are traditionally applied to all companies, irrespective of size, to consider questions of governance, networks, asymmetries, transactions and business relationships be used in the study of SMEs, to see where the companies are positioned in relation to these theories and to enable further, SME-specific propositions to be made in chapter 8. Indeed the reason for this particular choice of theories is that they can all

shed light on how SMEs interact with global suppliers or distributors in upstream and downstream relationships.

Although the relevance of all the five theories to the research question has been established in this chapter, there remains a research gap which justifies the empirical study. This gap arises for two main reasons: one contextual and the other theoretical. Firstly the economic, social, cultural and historical context, outlined in Chapter 2, appears to militate against effective management of the global supply chain by SMEs in this sector, yet some firms are achieving successful internationalization. Secondly this review of the literature has shown that there have been studies of SMEs and internationalization in the international business literature (see 3.2) and there have been studies about the ‘poor fit’ (Arend and Wisner, 2005) between SCM and SMEs (3.3.1). Yet the ‘poor fit’ thesis would not appear to be the final word on this question, since evidently there are some manufacturing SMEs that are successfully managing global relationships. How are they doing it and what can these theories contribute or fail to contribute to our understanding of the question?

The theories, as outlined in this chapter, are the most appropriate in the search for explanations to this phenomenon of some SMEs managing their global supply chains and increasing their level of internationalization in the face of the specific, possibly adverse, circumstances presented in Chapter 2 of French wariness of globalisation, a relatively low number of exporting firms, deindustrialization, regional factors and strong domestic competition. These theories have provided an invaluable framework and were referred to throughout the research in order to reflect on what was discovered during the different interviews.

Table 3.2 Theories in the Literature Review and their relevance to SMEs

	Transaction Cost Analysis	Agency Theory	Embeddedness Theory & Network Theory	Power and resources in supply chains	Governance theory
Level of analysis	Inter and intra-firm Vertical	Inter-firm Vertical	Inter and intra-firm Vertical and horizontal	Inter and intra-firm Vertical and horizontal	Inter and intra-firm Vertical and horizontal
Individual, societal and supply chain assumptions	Bounded rationality Opportunism	Bounded rationality Asymmetries Goal conflicts	Trust Cooperation The social nature of Man	Asymmetries Value capture Context dependence Critical assets	Integration and Management of SCs possible through use of appropriate strategy and tools
Problem addressed	Location of firm boundaries. Minimizing transaction costs	Effective management of an agent by the principal	Link between social relations and business relations. The strength of ties	Distribution and effects of power in the supply chain. The role of resources in inter-firm relationships	Possible structures and forms of governance of the SC by the lead firm
Relevance to study of SMEs and SCs	The make or buy decision in the particular context of resource-limited SMEs	Techniques used by SMEs as principals in relationships with global agents	The embeddedness of SME business relations in social relations and the effects	The importance of markets, resources and context for SMEs in asymmetrical SCs	Different structures and forms of governance adopted by SMEs to effectively manage SCs
Questions raised by theories relevant to this thesis	What are the reasons behind these SMEs' make or buy decisions?	How do these SMEs ensure a good service from agents globally?	Are embedded social relations a hindrance or help in SME internationalization?	What is the impact of power asymmetries on these SMEs in their global SCs?	What forms of SC governance can be shown to be most effective for these SMEs as lead firms?

Chapter 4. Methodology

“If the object of our endeavours is the possibilities for economic development and prosperity, then we should recognize that in order to speak authoritatively on these issues, we need to study what firms do, where they do it, why they do it, why they are allowed to do it, and how they organize the doing of it across different geographic scales”, (Henderson et al., 2002, p438).

4.1. Introduction

Following chapter 2 on the macro and micro context of this research and chapter 3 which discussed the relevant academic literature, this methodology chapter of the thesis describes first of all the ontological and epistemological approach (4.2), then the methodological considerations of qualitative research in supply chain management (4.3), the research design (4.4), and the different stages of the interview based research (4.5). After this there is a presentation of the grounded theory methodology (4.6) and finally a conclusion is made (4.7).

In chapter 3.4 it was demonstrated that a research gap exists for both contextual reasons (since the context would appear unfavourable to internationalization) and also for theoretical reasons, because the theoretical framework may not fully explain the phenomenon under study. The key thesis about SCM and SMEs is that a ‘poor fit’ exists or that effectively managing supply chains is beyond the capabilities of SMEs. Hence the research question of how these firms are managing to do what they apparently should have a lot of difficulty in doing. This in turn leads onto the question of how to research this subject. The decision was taken to use qualitative research methods that are both inductive and exploratory. These methods are appropriate for three reasons:

- **SMEs lend themselves to this type of methodology.** Firstly to understand how SMEs organize their global supply chains and why they take certain decisions, it is essential to interview the managers directly involved. Since SMEs usually have only a handful of managers who are responsible for the management of global supply chains, the individual interview format is particularly well suited to understanding why a given firm has decided to manage its supply chain in a given way.

- **The perceptions of SME managers need to be obtained.** Secondly in seeking to explore and explain the phenomenon under study (some small firms successfully managing global supply chains and others not), why and how questions need to be asked, and the perceptions of the interviewees need to be obtained in order to gain an in-depth understanding of the complexity of the subject. The respondents need to be given the opportunity to interpret events and create their own narrative. A structured questionnaire, for example, does not allow the respondent to express his/her thoughts in the form of his/her own choosing. Only qualitative research methods allow this to happen.
- **Exploratory and inductive methods allow the co-construction of knowledge.** Alvesson (2011) has referred to the co-construction of knowledge by the researcher and the interviewee. This is only possible in circumstances where the researcher gives the interviewee the opportunity to relate their experience of the given subject and the researcher brings pertinent theoretical knowledge in order to analyse and interpret the data. In this way, by allowing in the subjective experience of the interviewee, in this case SME managers, the purpose is to produce research which is grounded in the data collected.

4.2. Ontology and Epistemology

The ontological approach that underpins this research project is constructivist (Berger and Luckmann, 1966; Cunliffe, 2001), with the aim of displaying multiple realities through shared investigation by both researcher and participants of experience, meanings and explanations. The constructivist approach rejects the idea of a value-free neutral observer and acknowledges that research is carried out under specific conditions which are often chosen neither by the researcher, nor the researched. This approach is encapsulated in the following extract from *The Eighteenth Brumaire of Louis Bonaparte*: “Men make their own history, but they do not make it just as they please; they do not make it under circumstances chosen by themselves, but under circumstances directly encountered, given and transmitted from the past. The tradition of all the dead generations weighs like a nightmare on the brain of the living”, (Marx, 1852, p10). From this perspective, therefore, the researcher does not claim an objective, wholly accurate rendering of a particular world, but a construction of it, in the light of what Marx termed: “the tradition of all the dead generations”.

In epistemological terms, an interpretivist approach is taken (Snape and Spencer, 2003): that is to say that there is a rebuttal of the postulate that reality is objective, an attempt to understand the research problem from the inside, a willingness to adapt the research to the changing environment and a recognition of the researcher's own participation in the research. The basis is that knowledge can be advanced by exploring and explaining the social world through the understanding of both the participants and the researcher. Therefore there is recognition that the findings of the research are influenced by the researcher's own perspective, choices and values: unlike the positivist tradition which maintains that objective, value-free inquiry in the social sciences is appropriate and possible, on the presupposition that facts and values are distinct. A critique of the modern relative dominance of this epistemology can be made as follows: "the quantitative emphasis on what counts and what can therefore be counted (empirical data) has long obscured what does not count (subjective emotions)" (Mishra, 2016).

Interpretive research sees facts and values as linked and argues that data has to be interpreted to say anything meaningful (Alvesson and Kärreman, 2011). As Denzin (1994, p500) noted: "In the social sciences there is only interpretation. Nothing speaks for itself". Qualitative research involves a series of selections throughout the process from design, to methodology, to data collection and analysis. Consequently the choices made are open to challenge and must be justified. The grounded theory (GT) model (Glaser and Strauss, 1967) aims to build theory from the bottom up and through what is known as 'the constant comparative method' to relate emergent theory to the data collected. The key point about GT is that it provides a model that offers rigour and openness in the research process, so that future researchers can clearly see the different building blocks leading to new conceptualizations or propositions.

A further point about epistemology relates to what kind of knowledge can be generated in the social sciences. Here Flyvbjerg argues that context is particularly important: "Social science [...] has in the final instance nothing else to offer than concrete, context-dependent knowledge" (Flyvbjerg, 2006, p223). As it will become clear in the thesis, this research project aims at context-dependent knowledge (Pettigrew, 1987, p1990) arrived at by means of the selected cases.

In interpretive research there is a continuous dialogue between the data (in this case: interview transcripts) and the researcher's pre-understanding based on a knowledge of existing theories.

This is a process known as the hermeneutic circle which describes the circular nature of interpretation (moving back and forth from text to interpretation) and argues that the meaning of a text must be found within its cultural and historical context (Mantere and Ketokivi, 2013). The following section will consider the use of qualitative research in SCM and the particular use of grounded theory.

4.3. Methodological considerations of qualitative research in SCM

In the field of study of SMEs and SCM, taken together, a large body of research already exists (Quayle, 2003; Arend and Wisner, 2005; Hong and Jeong, 2006; Harland et al., 2007; Vaaland and Heide, 2007; Towers and Burnes, 2008; Bordonaba-Juste and Cambra-Fierro, 2009; Bayraktar et al, 2010; Meryem, 2011; Didonet and Diaz, 2012; Palomero and Chalmeta, 2012; Thakkar et al., 2012; Jayaram et al., 2014). Equally the field of SMEs and the process of internationalization has been researched (Lu and Beamish, 2001; De Chiara and Minguzzi, 2002; Leonidou, 2004; Lu and Beamish, 2006; Street and Cameron, 2007; Pangarkar, 2008; Schweizer, 2010; Hessels and Parker, 2013; Hsu et al., 2013; Child and Hsieh, 2014; Tolstoy, 2014; Love and Roper, 2015). Despite this substantial existing body of research there are still gaps in the research which allows for qualitative research, and in particular a grounded theory methodology (see 4.3.1), to be used in order to develop theory based on the particularity of the companies studied. It should be noted that the author could not find an academic paper that combined grounded theory, supply chain management and specifically SMEs.

The SMEs studied here are particular on the following four counts: firstly they are specific to the agricultural machinery sector; secondly they are all SMEs, lead firms in their supply chains, final assemblers and therefore not simply suppliers of larger companies (the context in which SMEs are more often studied); thirdly they are all born local, regionally embedded manufacturing firms which have been in existence for many years, before seeking to internationalize; finally the research covers both upstream and downstream relationships and is not limited to one or the other, as is often the case. Therefore because of the distinctiveness of the research subject, the use of grounded theory can be justified to make a contribution to building theory about SMEs and global supply chains.

Logistics and SCM research has been dominated by quantitative methods, while qualitative methods are still in their infancy (Trautrimis et al, 2012). It is interesting to explore why it is that there has been this domination by quantitative research methods. Aastrup and

Halldorsson (2008), from the critical realist perspective, argue that since logistics is primarily concerned with physical flows and objects, it relies heavily on the scientific method. In so doing it has created a strong systems-based approach. Through designing and modelling new systems, logistics research aims to improve performance, sometimes without considering the interventions of human agents. In referring to the “myth of positivism” in logistics research, these authors maintain that an “intellectual blind spot” has been reached; “a position that will not be reversed unless alternative approaches, such as case studies, will be given an independent and complete role rather than a complementary role, limited to explorative purposes of research”, (Aastrup and Halldorsson, 2008, p749). They go on to propose a model which combines both supply chain structure and agency and sees a constant interplay between the two: with supply chain structure constraining and giving powers to agents; and agents transforming and acting within the supply chain structure. With this model, they argue, the human dimension is reintegrated.

It is well accepted in the academic literature that supply chain management is not only about technical matters, but also about relationships. Thus: “Supply Chain Management is the management of upstream and downstream relationships with customers, suppliers and key stakeholders in order to increase value and reduce cost for all members of the supply chain” (Christopher, 2005, p5). This management of relationships in supply chain thinking translates into the prescription of measurement, creating win-win relationships, achieving alignment and enhancing collaboration (Wilding and Humphries, 2009; O’Brien, 2014). What are omitted from the recommended medicine are perceptions. We do not know how the actors in the chain perceive their suppliers, distributors and partners, nor their own organization. Often supply chain research does not include a subjective and contextualized perspective, but prescriptive remedies of best practice or simulations and optimizations of flows based on mathematical models. By paying attention to the subjective experience of actors on the ground, qualitative research can add value to the research process, by focusing on perceptions.

It is also argued that qualitative research in SCM requires rigour and clarity of processes to ensure validity (Manuj and Pohlen, 2012). No set of rules is prescribed to reassure the researcher but instead there is a reliance on the power of narrative to explore meaning rather than on the safety and universality of numbers and equations (Kapoulas and Mitic, 2012).

Mentzer (2008) argues for a constant examination of the claims that the research makes. This process of checking, exploring and abduction is described by Borgström:

“In an initial state of the study when the researcher is familiarizing him- or herself with the setting, unexpected empirical material is encountered. This material cannot plausibly be accounted for by available theory...The surprise is a breakdown in research understanding. More systematic work is needed both by going back and forth to the research site and by engaging in additional literature. Thus abduction is used to interpret and construct the mystery in a sensitive and reflexive way, which is a systematic combination of theory, empirical material and imaginative resources”, (Borgström, 2012, p846-7).

Surprises are one of the interesting aspects of qualitative research, since they require reflection and re-evaluation. The opposite response - that ‘everything was predictable’ - is equally challenging, and leads to the grounded theory concept of theoretical saturation: the possibility that no new insights are to be discovered if a particular research direction is to be continued (sub-chapter 4.6).

Research in the operations management field has underlined how qualitative studies can provide the ability to examine a topic in depth, a richness of description and “unintended insights, which can lead to new avenues of inquiry” (Boyer and Swink, 2008, p340). Qualitative studies can also lead to the development of theory (Voss et al., 2002) and allow “the much more meaningful question of *why*, rather than just *what* and *how*, to be answered with a relatively full understanding of the nature and complexity of the complete phenomenon” (Meredith, 1998, p444).

There are three key potential shortcomings to qualitative research. Firstly there is the problem of trying to generalize the results from a small number of companies to a wider population (Boyer and Swink, 2008). This is addressed by Yin who encourages researchers to aim towards analytic generalizations and argues that: “...findings from a single case study nevertheless can be generalized to a broad variety of other situations” (Yin, 2014, p42). The generalizability of the findings of this research, which focuses on SMEs at a particular node in the supply chain, in a specific sector and in a specific region, to the wider area of SMEs and SCM, is, of course, an important question. The focus of any qualitative research will be

limited by constraints, but this should not distract from the possible generalizable insights that it may be able to contribute.

However researcher doubts about the generalizability of findings is no doubt why qualitative research tends to be exhaustive and possibly exhausting. Alvesson and Kärreman (2011, p9) give the example of one PhD student who amassed 750 pages of meeting transcripts and 250 pages of interview transcripts and only used about 5 per cent of these transcripts in the thesis. Clearly a balance between limiting the research scope and gathering sufficient material to permit generalization needs to be achieved in qualitative research.

Secondly there is a problem of narration (Riessman, 1993). Interviews and a mass of other data have to be compressed into text that not only must accurately summarize and describe, but also must lead to the possibility of theory-building, after subjecting the evidence to analysis based on abductive insight. Care needs to be taken to construct a written account that is readable, analytical and understandable to the reviewer who is not familiar with the material.

Finally it leaves itself open to the accusation of manipulation, since researchers are free to interpret, speculate and find meaning as they choose and in line with their own personal agenda (Morgan and Smircich, 1980). This raises questions about data analysis and interpretation. How can the reviewer be sure that the analysis presented is not biased, selective or even simply flawed? This risk of researcher bias can be mitigated by ‘perceptual triangulation’ (Bonoma, 1985, p.203). This is defined as using multiple different sources to ensure the validity and reliability of the information collected. For example in this research project, information collected at interviews about companies and the sector has been confirmed through independent state-regulated websites, online newspaper articles, industry-wide academic and professional reports, representatives of advisory bodies, and by the comments of managers in other companies. This method of using multiple sources is presented in detail in section 4.4.4 of this chapter.

4.3.1. Grounded theory in SCM research

Grounded theory (GT) is an inductive method used in qualitative research that provides guidelines for collecting and analyzing data and involves iterative strategies of moving back and forth between data and analysis. GT came out of social science field and case study

research in the USA in the post WWII period and specifically out of the need to demystify the opaque nature of methodology used in field research. Thus Glaser and Strauss in *The Discovery of Grounded Theory: Strategies for Qualitative Research* (1967) set out to develop a methodology that focused on analysis and prescribed a number of techniques aimed at rendering qualitative research capable of building theory grounded in data, rather than simply providing descriptive accounts (Charmaz, 2014).

Subsequently GT has gained in prominence and has been used in a wide range of social science disciplines. In supply chain research, GT (Mello and Flint, 2009; Kaufmann and Denk, 2011; Randall and Mello, 2012; Manuj and Pohlen, 2012; Denk et al., 2012a) has been seen by some authors as wholly appropriate, given the intra and inter-organisational focus of SCM and the need to understand processes from the human perspective:

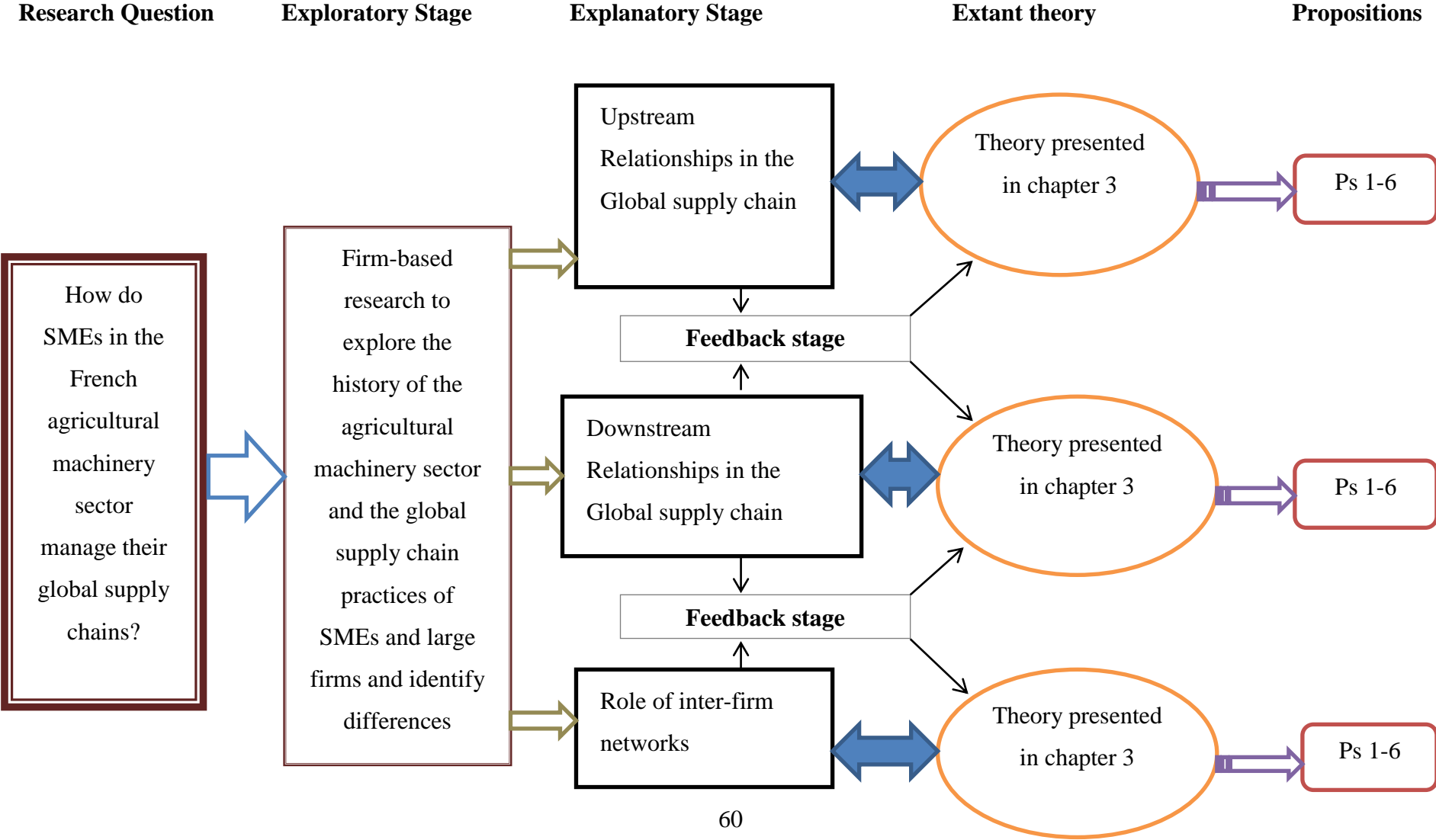
“Modern supply chain complexity requires a research methodology that informs research as to how individuals interact within the whole. Grounded theory (GT) provides such a methodology”, (Randall and Mello, 2012, p864).

The appropriateness of GT to supply chain research is based on the idea that supply chains are systems within systems that are constantly adapting to changes in the environment. Through inductive, pattern-seeking methods, GT research develops codes and categories (levels of abstraction), based on the data and then posits relationships between these codes and categories in order to build theory. In SCM, GT is a method to collect data from professionals in firms aimed at uncovering supply chain processes, as they are experienced. It should be noted that GT contains divergent factions and that there is not only one way of carrying out Grounded Theory research. The way in which GT was applied in this research is outlined in detail in section 4.6 of this chapter and is in line with a ‘Glaserian’ approach (Mello and Flint, 2009; Charmaz, 2014).

4.4. Research Design

The research design is outlined in Fig.4.1 below. This shows the different stages, the role of theory in informing the qualitative research process and the eventual arrival at a number of propositions which are subsequently discussed in chapter 8 of this thesis. This section presents the choice of subject, the choice of companies, the research questions and the data sources.

Fig.4.1 Research design: Link between research stages, theory and propositions.



4.4.1. Choice of subject

At the outset of this research project in 2011 the offshoring activities of manufacturing SMEs in France was chosen as the subject for study. The principal reason was that, in political terms, offshoring remains a controversial subject in France and it appeared to be interesting to explore in more detail how and why this was happening. However after some initial research it was found that very few manufacturing SMEs had actually offshored part of their activity or at least were reluctant to share this information openly. It was therefore decided to both widen and narrow the frame for study: to widen by carrying out research into the range of global supply chain practices in order to evaluate the internationalization of firms in relation to both customers and suppliers; to narrow by focusing on only one sector to be able to make comparisons between companies engaged in similar manufacturing activities. It is important to study SMEs, since 61% of the 100,000 French exporting companies are SMEs (see sub-chapter 3.2.1.) and companies of this size are well represented in the agricultural machinery sector. With future growth amongst SMEs linked to exports, the context of globalisation as outlined in chapter 2 and the challenges of establishing and managing an international presence, they are a justifiable choice for study.

Therefore the subject for the research project became the global supply chains of SMEs in the north west of France in the agricultural machinery sector. This sector was chosen for four main reasons: firstly, it has strong historical roots in this predominantly rural area; secondly a number of SMEs in this sector were known to have global supply chains; the companies were final assemblers of machinery and therefore at the heart of their supply chains and finally contact with a manager in an SME in this sector already existed, enabling easy initial access for research purposes.

This is a research project which has lasted four years. It would be false to claim that the planning and execution of this research has been a perfect linear process which has moved without difficulty from stage to stage. That has not been the case. It has evolved as the interview material has evolved. For example after the first exploratory phase a questionnaire was designed and sent to around thirty SMEs in this sector, but only two responses were received. It was decided that this attempt at quantitative data collection should be abandoned in favour of a further round of more focused explanatory interviews. Following this setback,

the surprises encountered in the first phase led to the decision to dig deeper and seek explanations for how and why SMEs manage their global supply chains in particular ways. The decision was therefore taken to adopt a wholly qualitative research model and not to attempt mixed methods. There were four main reasons for this: firstly the method of semi-structured interviews is capable of providing a wealth of rich data; secondly it allows new and often surprising insights to be unearthed; thirdly it allows for relevant theory to be considered and reconsidered through the process of abduction; finally during the experience of the first exploratory round of interviews, the author had begun to develop an interview technique which produced interesting and substantial responses from interviewees. Consequently there was a willingness and enthusiasm to develop these skills further. The decision to undertake a third phase of feedback to certain companies followed by group discussion evolved as a result of the expressed interest of certain managers in companies to be informed about the results of the study and to gain another vision of the sector and the question of internationalization from non-firm representatives who were also specialists in relevant areas. Therefore the three stage organization of the research was not planned in advance, but rather evolved over time.

In addition to the rethinking, deviations and false starts, there has been a lack of predictability to the research. The availability of managers, their willingness to participate and the need to chase potential interviewees at certain times have all added to the challenges faced. Deception has been encountered when potential interviewees postponed arranged meetings, only to finally abandon. Thus an ideal research design, comprising participants who are representative of different product specialities, different company sizes, different roles within their companies and different global supply chain practices, has been difficult to achieve. However the companies and managers that finally did participate at different stages, remain representative of a cross section of the sector, as the following section indicates.

4.4.2. Choice of companies

The main focus of the research is on SMEs in the agricultural machinery sector with between 50 and 250 employees. The decision was taken to gather information about the international supply chain experience of SMEs in the agricultural machinery sector, in the three regions of north-west France (Bretagne, Pays de la Loire and Basse Normandie, comprising 15

departments). All of those companies with the APE⁷ code 2830Z (manufacturer of agricultural and forestry machinery) in these three regions were identified on the web site: www.societe.com⁸. They numbered 147. Out of these 147, thirty were found which met the following criteria: they were final assemblers of agricultural machinery, they were SMEs with less than 250 employees in line with the European Union definition (European Commission, 2016) and they had, or in the past they had had, an exporting activity. Out of these thirty SMEs, twelve have participated in this study. It should be noted that more than twelve companies were approached and that a number failed to keep telephone appointments or refused to participate for reasons of time or they initially agreed to be interviewed but later retracted. The details of the companies and organizations that finally did take part in the research are given in Appendix I.

The companies that were selected and that agreed to participate manufacture a range of different types of farming machinery and equipment: trailers, seed drills, muck spreaders, slurry spreaders, corn pickers, livestock equipment etc. There is some overlap but each company tends to specialize in one main product. It was important to have a range of different firms in the sector in terms of company size and product and market type in order to ensure that the sample was representative of the sector. Three larger firms in the same sector were also selected, which also manufacture different product types (loaders, ploughs and tractors) in order to make comparisons between how they manage their global supply chains and how SMEs do. Furthermore it was important to guarantee anonymity to the companies so that their identity would not be disclosed to other firms. Care has been taken not to cite the names of firms in the thesis.

⁷ APE : « Activité principale exercée » is a code of five characters (four numbers and one letter) given by INSEE (“Institut National de la statistique et études économiques” - the French Statistical agency) to every company. This code characterizes a company’s main activity with reference to the nomenclature of French activities (NAF).

⁸ www.société.com This website collects information on companies from the « Greffe du tribunal de commerce » where companies are obliged by law to register their accounts

The reason for the geographical limitation to north-west France is because it is easier to visit companies within a maximum of a three hour drive of the author, rather than to travel across the whole of France. Also there are region-wide systems of international support and assistance (e.g. “Bretagne Commerce Internationale”) which justify the regional focus of the research.

4.4.3. Research question

The research question is stated as follows: how do SMEs in the French agricultural machinery sector, lead firms and final assemblers in their chains, manage their global supply chains? This relatively open question formed the basis of the stage 1 exploratory interviews (see Appendix II). It allowed inter-firm relationships in both the upstream and downstream supply chains to be explored.

The stage 2 interviews sought to ‘dig deeper’ into the research question and find explanations for the variation in global supply chain practices and experience and the different governance structures evident in similar companies in the same sector. The stage 2 interview questions were formulated with reference to relevant theory as outlined in Chapter 3 and aimed at finding reasons for choices and practices.

The stage 3 interviews and questions are essentially a process of re-opening the discussion and also potentially of falsification of the stage 2 findings. After presenting the findings to managers in SMEs and in advisory bodies, discussions were held to gain reactions, to see whether any omissions had been made and whether certain nuances needed to be added. Again the central focus of these discussions was SMEs in the global marketplace and how they manage their global supply chains.

4.4.4. Other data sources

This research goes beyond the bounds of an exclusive focus on data collection from interviews with managers in the SMEs in order to gain a better understanding of the context in which their global supply chains operate. In terms of primary data collection this has been achieved by gathering information from a number of sources. Firstly during visits to companies in the first research stage, the author was given a detailed tour of the production sites of five of the nine companies involved (Firms A, F, M, N and O). Secondly by interviewing local researchers who have collected oral accounts and documents concerning

the history of particular companies in the sector of agricultural machinery: M. Bouvet on Huard, a large manufacturer of ploughs in Chateaubriant and M. Lahaye on Garnier, the largest industrial manufacturer in Redon until its closure in 1980. The objective has been to understand the evolution of the agricultural machinery industry in France and the nature of the changes since the end of '*Les Trentes Glorieuses*' (see sub-chapter 2.5).

Finally, in terms of primary data collection, from a policy perspective, interviews were carried out with three representatives of the Rennes Chambers of Commerce with responsibility for promoting supply chain best practice (Bretagne Supply Chain) and for developing the export activity of companies (World Trade Centre). Additionally a specialist in advising small firms in the region in the area of exports was interviewed.

In terms of secondary data collection an appreciation of the context of the agricultural machinery sector has been achieved by referring to specialist reports on the sector: Axema is the industry wide professional body that represents agricultural machinery manufacturers and produces regular reports; Xerfi is a private research group which produces detailed reports on economic and organizational trends in specific sectors; IRSTEA is a large public research organization specializing in agricultural and environmental matters. In 2014 it published a report into the future of the agricultural machinery sector at the request of the French government (IRSTEA, 2014). Detailed research reports have been supplemented by regular monitoring of the trade press and daily, weekly and monthly journals including *Logistiques Magazine*, *Matériel Agricole*, *Nouvel Observateur*, *Ouest France*, *Usine Nouvelle*, *Les Echos*, *Le Monde* and *The Economist*. The author has also participated in visits and events organized by the Rennes Chambers of Commerce and Industry, in particular a group of professionals called "Bretagne Supply Chain", attended agricultural trade fairs (e.g. Space in Rennes) and logistics trade fairs (e.g. SITL in Paris). In addition to local history books on agricultural enterprises, reference has also been made to a DVD on the history of the manufacturer, Garnier in Redon, entitled "*Garnier à Redon...Des machines et des hommes*".

4.5. Interview based research

Interviews have been central to this research. As can be seen in Appendix I managers in twelve different SMEs were interviewed; some once and five SME managers were interviewed twice. Therefore this is research which is principally based on interviews with professionals in one specific sector. It was decided to use in-depth, semi-structured

interviews as the main data gathering tool in this research, since this method would allow the subject to be fully explored and explanations to be sought. No other method could have obtained the detailed experiences and assessments of managers in this sector in relation to the chosen subject.

The interview is a phenomenon which is ubiquitous in the modern world. In social research Silverman has found that: “the interview method clearly predominates as the single most preferred method”, (Silverman, 1998, p10). For qualitative researchers, aiming to achieve rigor, reliability and lack of bias, the roles of both interviewer and interviewee need to be considered. From the constructionist perspective, conversations, dialogues and interviews are the means by which the participants (in this context interviewers and interviewees) construct reality and co-create meaning:

“We therefore play an active part in constructing and making sense of our social realities in our conversations, and our dialogical exchanges are a central constitutive feature in our daily and our theoretical sense making. [...] That is, we accept that as managers and researchers we are constructing the very social features we are trying to make sense of” (Cunliffe, 2001, p353).

Geertz (1973, p9), from the perspective of anthropology, made the same point more succinctly:

“[...] what we call our data are really our own constructions of other people’s constructions of what they and their compatriots are up to”.

Alvesson (2011) claims that it is the role of the interviewer to lead the interviewee in the direction of “intelligent talk”, which in turn can lead to the “co-construction of knowledge”. He also suggests that at a minimum it is necessary for the researcher to take into account the interview situation from the interviewee’s perspective. He lists a number of problems that the interviewee must address in this non-routine situation including: the problem of maintaining and increasing self-esteem during the exchange; the motivation problem of developing an interest in active participation; the construction problem of how to explain complex phenomena in language. The research interviewer on the other hand has different priorities: to make the interviewee feel comfortable and to open up; to give feedback in order to direct the interviewee towards interesting talk relevant to the subject; to achieve the correct balances

between friendliness and neutrality and between too much intervention and not enough; and the simple pragmatic difficulties associated with actually recording the content of the interview. It should also be noted that in this research, the interviewer plays the role of an outside observer and not of an involved researcher or active participant (Walsham, 1995). This role of outside observer is perhaps reinforced by the fact that in this case the interviewer is a foreigner, albeit a French-speaking one.

Czarniawska-Joerges (1992) uses the term ‘insight gathering’ instead of ‘data collection’ to describe the objective of the research interview and this appears the most appropriate metaphor. In this project the interview programme and the gathering of insights is divided into three distinct stages: stage 1 exploratory, stage 2 explanatory and finally a stage 3 feedback and discussion sessions. These different stages are now explained in more detail below.

4.5.1. Stage 1 Exploratory Interviews

In the first exploratory stage of the interviews, visits were made to a total of six SMEs in the agricultural machinery sector and to three larger companies (see Appendix I for details of the companies and participants in the whole research project). Since this research project takes a holistic view of the supply chain from suppliers to final customers, in total 19 interviews with Directors, Logistics Managers, Supply Chain Directors, Purchasing Managers and Export Managers were carried out. The objective was to obtain a picture of the relationships and structure of the global supply chains of these traditional, small manufacturing companies, which have been locally embedded for several decades. The larger companies were interviewed in order to compare the differences in the organization of their global supply chains with that of the SMEs in the sector.

Each interview was recorded, played back, listened to and then summarized with key quotes extracted. Chapter 5 presents each of the companies in turn and describes the differences in terms of the organization of their global supply chains and the challenges that they face. The questions that formed the basis for these first stage semi-structured interviews are given in Appendix II.

4.5.2. Stage 2 Explanatory Interviews

As described in section 4.4.3., the questions in these explanatory interviews were linked to the theories as outlined in the Literature Review (chapter 3). The standard questions that formed

the basis for these in-depth, semi-structured interviews are given in Appendix III. All of the interviews were carried out on the telephone. Apart from reasons of convenience, it was found that telephone interviews can facilitate a focus on discourse content, since the environmental context is excluded.

All of the interviews were recorded and transcribed in French using a software package: “Dragon, Naturally Speaking”. These transcriptions were then translated initially by a machine translation package: “SDL Language Cloud Machine Translation”. This does not give a perfect translation, so the author was obliged to improve the translated transcripts against the original French versions. The same procedure was followed in the Stage 3 interviews.

The first exploratory stage revealed a variety of practice in the governance and structure of the SMEs’ global supply chains. Although there were some similarities, companies in the same sector and of the same size tended to organize their inter-firm relationships in different ways. The objective of the second stage, therefore, was to dig deeper and seek explanations for these differences. There is therefore a process of explanation building in the stage 2 interviews.

Yin (2014, p149) describes the iterative process of explanation building and suggests that as the evidence is examined, initial propositions are revised and further evidence is considered from new perspectives. The danger here is that there may be a tendency to drift away from the original focus of the study and that key data may be ignored. So the researcher is obliged to regularly check the original objectives and to remain open to alternative explanations.

4.5.3. Stage 3 Feedback and Discussion sessions

The final set of interviews in the research programme again adopted a different form with different objectives. In terms of form the approach was interviewer-led, since a brief presentation of the findings of stages 1 and 2 (see the slides presented in Appendix V) was made as a prompt to further discussion of the issues raised and as a validation or non-validation of those conclusions: in particular slide 13 on “the barriers and facilitators of effective management of SME global supply chains” provoked discussion. Here it should be noted that, for Flyvbjerg (2006), qualitative studies have a greater tendency towards falsification than verification – in that the researcher often has preconceived notions challenged or overturned during the process.

The selection of participants in these interviews was strategic, since the objective was to gather reaction from those professionals who were known to possess both a good knowledge of the wider subject and the ability to contribute in a meaningful way to the discussion. This is in line with Flyvbjerg’s recommendation to avoid random sampling or the typical case, in favour of those interviewees that can “clarify the deeper causes behind a given problem and its consequences”, (Flyvbjerg, 2006, p229).

A summary of the different stages of the interview process is given in Table 4.1 below.

	Stage 1 exploratory Interviews	Stage 2 explanatory Interviews	Stage 3 feedback and discussions
Interview period	April 2013 to November 2014	November 2014 to April 2016	October 2015 to February 2016
No. of interviews	19	10	7
Duration of interviews	30 minutes to 1hour 15 minutes	30 minutes to 1 hour	1 hour
No. of interviewees per interview	One	One	One or two
Place of interviews	On site visits	Telephone interviews	On site visits
Origin of questions	Exploratory - seeking to understand relationships and structure of global supply chains	Explanatory - seeking to understand reasons behind GSCs. Questions theory-based	Presentation of research findings followed by discussions

Form of interviews	Questions prepared for each semi-structured interview with follow up questions according to responses. All interviews carried out in French.	Same standard questions for each semi-structured interview with follow up questions according to responses. All interviews carried out in French. (except one).	Group discussions prompted in response to researcher's presentation of project.
Data capture	Interviews recorded and listened to again later.	Interviews recorded, transcribed and translated into English.	Discussions recorded, transcribed and translated.
Data analysis	All interviews summarized with important quotes extracted and translated into English.	Categorizing and coding using Grounded Theory method.	Categorizing and commenting on transcripts in light of Stage 2 findings.

Table 4.1 Summary of the three Interview Stages.

4.5.4. Sampling

It should be noted from Table 4.1 that the number of interviewees varies from 19 in stage 1, to 10 in stage 2, to 7 in stage 3. This provides a total of 36 interviews and it is this total figure which provides the validity to the research. The stage 3 feedback sessions make an important contribution since they were held with professionals who were known, because the author had previously met them or they were known specialists in their domain. It was most likely that the function of this final stage (to provide feedback, commentary and discussion) would be fulfilled by people who had something to say on the subject. Thus the sampling began with a relatively large wide net of professionals and different sized companies and included site

visits, then narrowed to focus on SME upstream and downstream managers and finally widened out to include non-firm actors, as well as SME managers, who had expressed an interest in furthering the discussion.

Any sampling strategy in qualitative research will have its weaknesses, but this one has a certain coherence given the constraints of time and availability, already mentioned in section 4.4.2. This coherence is achieved over the three stages and is provided by the variety of different roles of managers concerned with upstream, downstream flows and internal organisation, the fact that representatives of different sizes of firms were interviewed, and finally that firms with different product types were interviewed. These factors allowed for a good representation of firms across the agricultural machinery sector to be obtained, which contributes to the validity of the study.

4.6. Using grounded theory

This section focuses on the analysis of the Stage 2 explanatory interviews in line with the grounded theory model, since it is important to present the process of moving from a mass of interview transcripts to building theory and propositions based on the data. Once each interview had been completed, recorded and transcribed, the work of initial ‘interviewee-oriented’ coding the transcript was begun. At the outset it is important to understand that there are five coding stages used in the data analysis of this research, in line with the grounded theory model. These stages are presented diagrammatically in the form of a pyramid in Fig 4.2. The idea of the pyramid is to show that each stage or level of coding is built on the previous one. The different coding stages are explained in detail below.

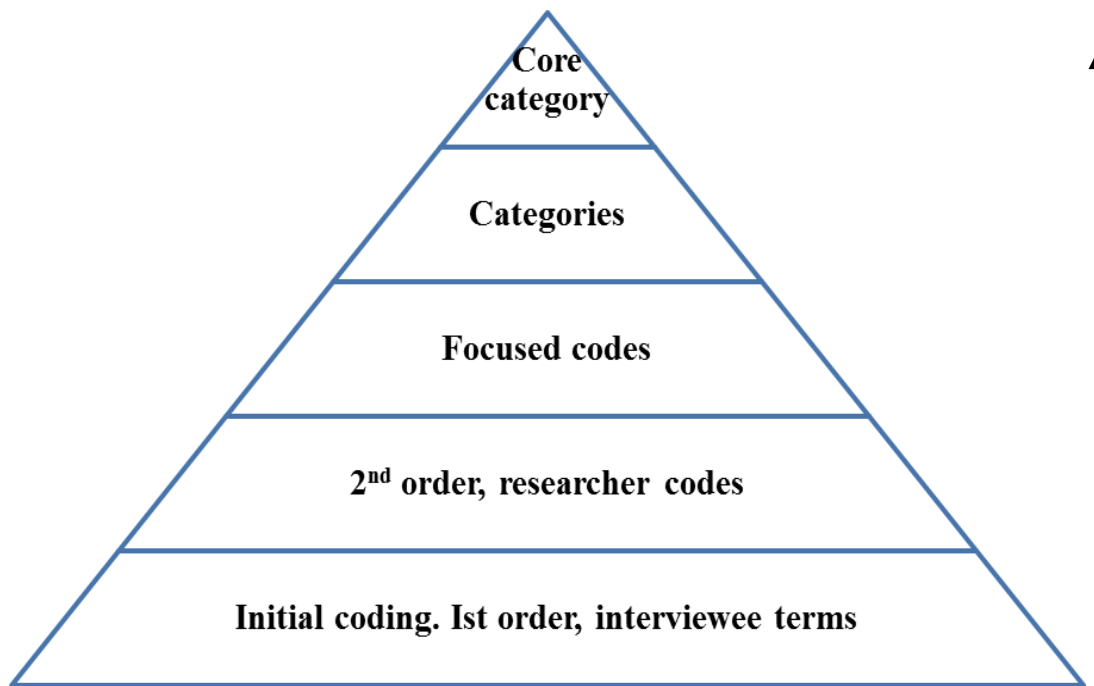


Fig. 4.2 Different grounded theory coding stages used in the research

1. **Initial coding. Ist order, interviewee terms.** Grounded theory research recognizes that it is advisable for the researcher to think about and code interviews as quickly as possible after the transcription has been completed, while the material is still fresh. The initial coding was done in English on the French transcriptions. The question of language is clearly important and there could be an argument that the initial ‘interviewee-oriented’ coding should be carried out in the language of the interview (Charmaz, 2014): this would stay more faithful to the original terms used by the interviewee. However, given that this is a thesis to be written in English, and English is the author’s first language, it was decided to remain with the same language throughout the analytical process. Subsequent translation of the transcripts from French into English required further review of the texts and ensured that no meaning had been lost.

It was also decided to code initially directly onto the French transcripts in pencil as the easiest way of thinking about the material, rather than using a document on the computer. An example of this initial coding of an interview extract is given in Appendix IV. (The coding in the document in Appendix IV is in Word format and not in pencil as in the original, for reasons of legibility.) These initial codes are presented in the tables at the beginning of each sub-section of chapters 6.2, 6.3 and 6.4 under the heading “Ist order interviewee terms”.

In the initial coding stage the process was to read carefully the original French transcript as soon after its completion as possible and to code staying close to translations of the words used in French by the interviewee. This is in line with the GT recommendation that: “initial coding should stick closely to the data” (Charmaz, 2014, p116).

2. **2nd order, researcher codes.** This is the first level of abstraction and the first grouping together of different interview extracts. This stage also adds the element of dimensions: that is to say whether the views expressed about the topic show that the interviewee considers it as positive or negative, important or unimportant, possible or not possible etc.

3. **Focused codes.** The following stage in the coding process, focused codes, is aimed at grouping together and organizing the researcher and initial interviewee-led codes and moving towards a more conceptual approach. Table 4.2 presents the focused codes which emerged from the research along with the categories, as they are presented in chapter 6.

Original categories	Focused codes
Upstream global supply chain relationships	Small worlds
	The trend towards global sourcing
	Change and professionalization
	The problem with big suppliers
	Make or buy
Downstream global supply chain relationships	Finding information about foreign distributors of equipment
	Controlling and monitoring foreign distributors
	Bottom of the pile and in a competitive market
	Relationships over the long term
Role of inter-firm networks	Are strong ties a blessing or a curse?

Table 4.2 Focused codes and original categories in analysis of Stage 2 interviews

4. **Categories.** Initially the categories followed a directional logic: those matters concerning upstream relationships, those concerning the downstream and those focused on networks. Subsequently, as the interviews and data analysis got underway and the process of relating theory to the findings was begun, the categories were changed (although the focused codes remained the same) to reflect the theoretical framework outlined in Chapter 3. This revision of the categories and reordering of the focused codes is shown in Table 4.3. This led to the Governance, Control and Power (GCP) model. Through reflection on the interview material gathered and the grouping together into focused codes, it became clear that the priorities for these firms in managing their global supply chains could be summarized into these three categories of Governance, Control and Power. Effectively this replaces a direction of flow logic with a more conceptual approach.

2 nd order researcher codes	Focused codes and sub-chapter numberings	Revised categories
Density, existence, function and limits of networks	6.2.1 Small worlds	Governance , embeddedness and networks
Role of Trade fairs, institutions, Internet and use of network	6.3.1 Information	
Duration of links; win win relationship sought; customer guaranteed long service; long term strategy	6.3.4 Relationships	
Positive and negative dimensions of strong ties	6.4 Strong ties	
Positive and negative dimensions of global sourcing and solutions found	6.2.2 Global sourcing	Control and management of supply chains
Move towards professionalization; new materials; internal reorganization ; maintain status quo	6.2.3 Professionalization	
Reasons to buy; reasons to make	6.2.5 Make or buy	
Larger companies reticent; need for recognition; risk of close relations; lack of commitment	6.2.4 Big suppliers	Power , the agency problem and markets
Monitoring and evaluating agents; support to agents; use of contracts	6.3.2 Monitoring	
Growth of competition; absence of power over agents; positive impact of agents; customer dominated market	6.3.3 Competition	

Table 4.3 Development of conceptual model showing data reduction from researcher codes to revised categories

5. **The core category.** Chapter 8.4 describes the core category of the research. The purpose of a core category in grounded theory is simply to provide a short answer to the question: what is this research about?

Two points are important to make about the process of developing codes and categories. The first is the constant comparison method described as the “analytical engine of GT” (Randall and Mello, 2012). This is the process of comparing data with data, data with codes, codes with codes and codes with categories to identify differences and to develop abstraction. The second is theoretical sampling which “pertains only to conceptual and theoretical development of your analysis” (Charmaz, 2014, p198). It is important to note that theoretical sampling is not the same as sampling in quantitative research. The aim is not to achieve a representative sample in order to make generalizations about a wider population, but to

elaborate and refine theoretical categories and sub-categories by going back to the data and codes.

Theoretical sampling is best explained by considering an example from the process in this research. If we take the category of ‘downstream global supply chain relationships’ (see Table 4.2), by examining the data in this category, it was evident that power and markets had not been fully explored. From the academic literature (Cox, 1999; 2002; Maloni and Benton, 2000; Nyaga et al, 2013), it is clear that power and markets play an important role in downstream global supply chains. Therefore the data was reconsidered in order to fill out this category and to obtain a fuller picture. From this revisiting, a further focused code emerged: “Bottom of the pile and in a competitive market”.

In addition to filling out existing focused codes or developing new ones, theoretical sampling can be applied to specifying the relations between codes. For example, it became clear that the focused codes, as presented in Table 4.2, could be regrouped together differently so that they are more closely related to extant theory. In other words the initial grouping of the focused codes into downstream, upstream and network categories constricted the process of analysis and theorizing. With the use of theoretical sampling, or going back to theory, they were reconfigured, as described in sub-chapter 8.2, into a governance, control and power (GCP) model, in order to facilitate the analytical process. Figure 4.3 shows the different stages where theoretical sampling was used, as it is valid to use this strategy throughout the research (Charmaz, 2014).

Indeed one of the key precepts of grounded theory is that the collection of data, coding, analyzing and theorizing are simultaneous. The design of the study, therefore, is not fixed at the outset, but evolves as the research progresses and in response to what is discovered (Czarniawska, 2014).

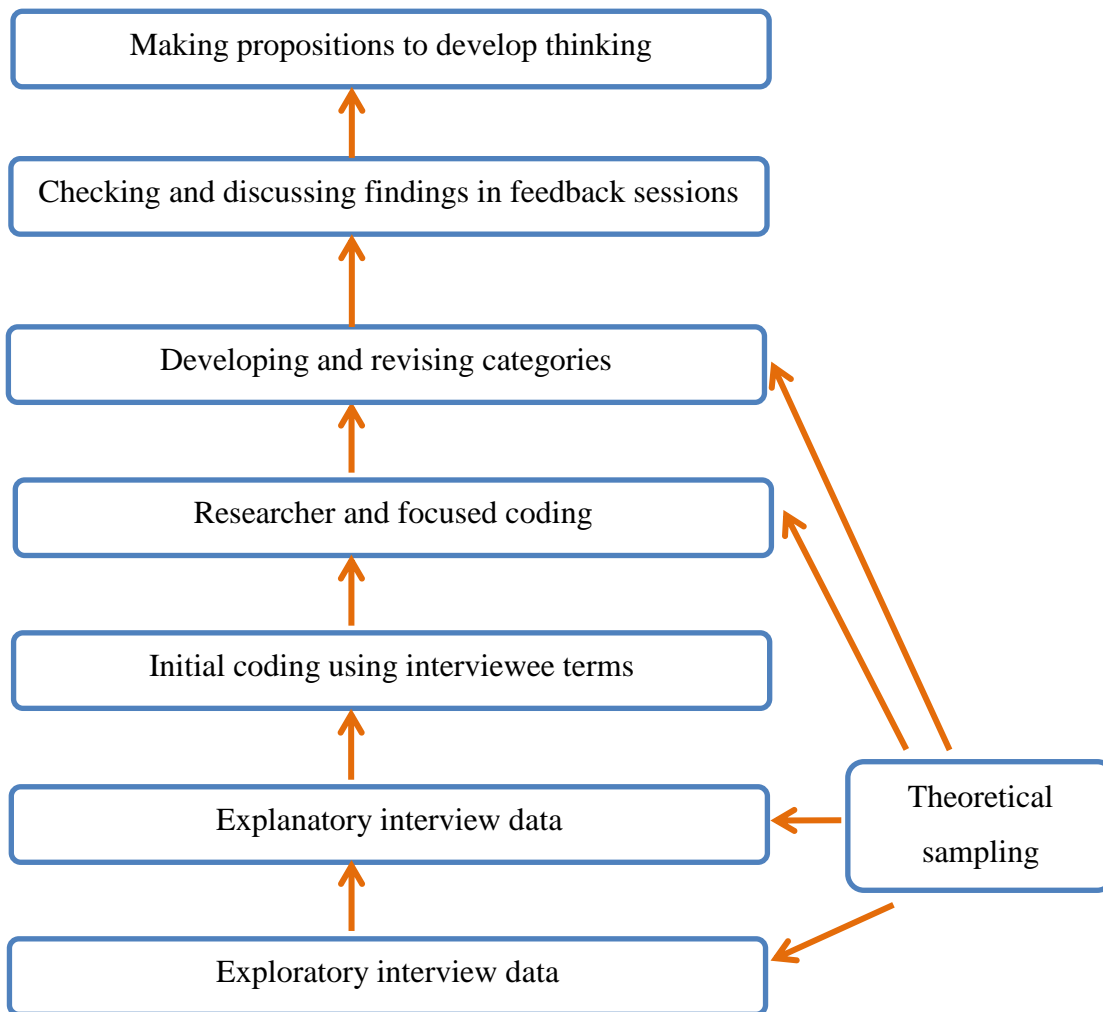


Fig. 4.3 Moving from data to theory building, using theoretical sampling

Summarizing, achieving closure and theorizing from qualitative research is difficult, because in a sense it is an open-ended narrative that could go on (Flyvbjerg, 2006) until the point of saturation is reached (Charmaz, 2014). But where is the point of saturation? How do you know when you have enough data? Is it the point where nothing new is happening or the same stories are being told? In this case, when do you know if enough professionals with knowledge and experience of the sector have been interviewed? Glaser (2001) makes the point that saturation is not simply the point where the same patterns or stories keep re-emerging, but where no new properties of the patterns emerge. The concept of theoretical saturation, then, is linked to a notion of conceptual density. Therefore sample size may be small but the key criteria for testing validity are whether the categories have been filled and

not whether enough interviews have been carried out: have the research question and the linked categories been explored and expanded from all angles?

4.7. Conclusion

Mills made one of the essential points about social research methods: “Social research of any kind is advanced by ideas; it is only disciplined by fact”, (Mills, 1959, p71). The researcher is encouraged to use his/her imagination to construct theory, but is always disciplined by the limitations of the material collected. Imagination is, of course, subjective. It could be added that discipline, applied to imagination, comes not only from the material collected but also from the existing body of peer-reviewed academic literature, which restricts certain avenues for theorizing and opens up others.

Breakdowns in the research process, when unexpected insights are produced during interviews, for example, are fruitful for the theorist, as Weick describes: “Whenever one reacts with the feeling *that's interesting*, that reaction is a clue that current experience has been tested against past experience, and the past understanding has been found inadequate”, (Weick, 1989, p525). The experience in this research project has often been that interviewees have given responses which are surprising and interesting. The result is that the material both disturbs and adds to the overall picture, by provoking reconsideration of what had hitherto been assumed or by contradicting or supporting a finding in the academic literature.

This chapter has presented the qualitative method employed in this research and its basis in constructivist ontology and interpretivist epistemology. It has highlighted the advantages of such an approach in the social sciences in arriving at answers to why and how questions and it has shown how studies in supply chain management can be enhanced. After explaining the research design and the different stages of the interviews, the grounded theory method was presented. Grounded theory is designed to produce rigour in qualitative research through the building of theory based on the data collected. Various techniques, such as coding and theoretical sampling, are employed to ensure the openness, reliability and validity of the research process. It is important to return to the notion of context and to stress that this research focuses primarily on managers’ perceptions of the external context of their firms, in the sense of the economic, social and political environment that surrounds them and the relationships between firms. Only qualitative research methods can provide the rich data

required in order to understand how and why SMEs interact at the global level in the way that they do.

A key point to retain from this chapter is that the grounded theory coding process, as described in 4.6, allowed a more conceptual approach to the research. Instead of approaching the research with a direction of flow logic which separates out upstream, internal and downstream flows, a model based on Governance, Control and Power (GCP) was developed. This model proposes that these are the priorities for SMEs in managing their global supply chains and the following chapters will show how such a conceptualisation emerged from the interviews that were carried out.

Chapter 5: Exploratory Research

5.1. Introduction

In the first exploratory stage of the research, visits were made to a total of six SMEs in the agricultural machinery sector and to three larger companies. In total 19 different interviews with Directors, Purchasing Managers, Logistic Managers, Export Managers and other specialists were carried out in a semi-structured manner. As shown in sub-chapter 2.5, interviews were also held with historians and others who have specialist knowledge of two particular firms in the agricultural machinery sector that have closed or been taken over after large scale redundancies in the 1970's and 80's (see Appendix I for details of the companies and participants in the whole research project). The primary objective of this research stage was to obtain a picture of the relationships and structure of the global supply chains of these traditional, small manufacturing companies, which have been locally embedded for several decades. The larger companies were interviewed in order to compare the differences in the organization of their global supply chains with that of the SMEs in the sector. At the end of this chapter a summary table is provided to illustrate the important differences between the two groups of firms (SMEs and larger firms) in relation to sourcing, production/internal organization and the downstream. Additionally, comparisons are made with those firms that have closed, as described in sub-chapter 2.5, to provide a historical context. Given that this is an exploratory chapter, the content is mainly descriptive, although the summary table provides a synthesis of the key supply chain features of the different groups of companies. The focus in this chapter is on the individual firms. In the following chapter, the themes which have emerged from the research are related to the theoretical framework developed in chapter 3 and are examined in more detail.

5.2. SMEs in the agricultural machinery sector in north-west France

5.2.1. Firm A.

Firm A is a family firm which was founded in 1938. It manufactures seed drilling machines and fertilizer spreaders at three sites in France. It employs 200 people. On the market there are currently 200 different models available. Firm A produces 4500 machines per year and in 2012 it completed and moved into a new purpose built factory covering 20,000m² and costing

20m€. 5% of turnover is invested in research and development and 50% of machines sold were designed and put into production less than 3 years ago.

Firm A exports its machines to more than 50 countries worldwide. 30% of its turnover is obtained internationally and the objective is to reach 50%. The reason for Firm A's presence internationally is explained by the cyclical nature of markets:

“France is the leading European market. But we realized that if we wanted to progress we had to go beyond France and search for new markets to ensure growth and stability, because more and more markets are cyclical and so when the French market is doing less well, there are other markets which can compensate. This allows us to ensure the stability and regularity of turnover and to absorb changes in the economic situation.” (Export Director, Firm A)

Firm A began by entering the markets of neighboring countries, Germany, Holland, Belgium, Spain and the UK in the mid 1980's. In the mid 1990's it began to search for opportunities in Eastern Europe: Poland, the Czech Republic and Hungary. Here, in the years immediately after the fall of the communist regimes, there was no distribution structure in place for agricultural machinery. In 2005 Firm A began to explore markets further east, including Russia and the Ukraine, by directly employing a full-time Byelorussian agent to act on their behalf in these countries, along with a technical assistant. At the same time markets outside Europe, such as Japan, South Africa, Argentina and New Zealand began to be developed as opportunities arose, although these countries remain a small element of the total export market. The strategy has been to focus primarily on “*la grande Europe*”.

In the last 10 years the Firm A export team has more than doubled in size to be able to achieve the goal of 50% turnover dedicated to exports. The reason for the initial moves into international markets is more a motivation for growth and expansion rather than the saturation of the domestic market.

Firm A has just begun the process of setting up a distribution subsidiary in the UK. The general model of the structure of the downstream supply chain is that Firm A sells through a single import company per country, which is in contact with agricultural machinery dealerships, who have direct relations with local farmers. The import companies represent the key for Firm A to enter into any given market. However these import companies represent

other agricultural machinery manufacturers as well and in some cases are larger companies than Firm A. In Poland, for example, the import company employs 300 people and sells over 20 different brands including Fendt, Manitou, Claas. In addition to sales of new products the import companies have a large market in sales of spare parts. Firm A therefore has to make sure that each of these companies is actively promoting its products. The problem is defined as follows:

“The difficulty with our partners is the visibility of our brand. If our partner does not make the effort to communicate, given that he distributes a large number of brands, our own brand is lost in all that and is no longer visible on the ground. That is something that we really need to be think about in the future: how to be seen by the final customers, the farmers.” (Export Director, Firm A)

The main way that Firm A aims to ensure the promotion of its products is by sending salesmen, who are based at the Firm A HQ, to the export countries. Each salesman spends approximately 50% of his time abroad; visiting the importing companies and dealerships, giving technical advice and assistance, presenting new products and attending trade fairs. The second role of these salesmen is to communicate information about orders and forecasts back to the Firm A site. It is more difficult to obtain accurate forecasts from the export market than from the distributors in France.

To begin this process of expansion beyond its borders, Firm A worked in partnership with a small number of other complementary agricultural machinery manufacturers located in the North West of France. Today Firm A is still in contact with these French manufacturers, because they share the same import companies in different countries and therefore can discuss strategy, recommend actions, suggest negotiating tactics or propose alternative importers. However the Export Director stressed that direct competitors are not invited, so that the chosen import company in Hungary, for example, will offer a full range of agricultural machinery provided by a small number of complementary French manufacturers.

As for other more official networks or means of support from the state or region, the response of the Export Director was categorical:

“We avoid this, because they are disconnected from what happens on the ground. Our problems are concrete. We need to find representatives of our brand who are

anchored in the local network and who are capable of selling our product. We are not looking for theory...and often we realize that people who are in administrative structures are very generalist and are not in touch with our concrete needs.” (Export Director, Firm A)

In terms of lessons learned from the internationalization process the key one is presence to give technical advice and to raise the flag. The second lesson is brand visibility and here the role of Trade Fairs is essential, since there are one or sometimes two per year in each country and Firm A has to have a stand at the major ones to be able to negotiate with import companies, customers and partners.

The main direct European competitors in the same market segment are large family owned German companies, often with a turnover of more than 300m€ per year (compared with Firm A's 42m€ turnover) and with a wider range of products. These companies also achieve up to 70% of their turnover from exports and started to move into the French market in the 1950's and 60's: so the export culture and tradition is well ingrained.

This led Firm A to reflect on how to respond to the harsh competition. An opportunity arose recently when a French partner company bought a small German agricultural machinery manufacturer and offered Firm A the possibility of selling its products under their brand name. This alternative, recently adopted, marketing strategy has now been replicated in Russia: this time in collaboration with the giant American multinational, John Deere (annual turnover: 35billion\$). Currently Firm A manufactures fertilizer spreaders (a piece of machinery that John Deere does not produce) for the Russian market under the John Deere colors and logo. The fact that John Deere has made this choice is seen as a sign of confidence in the professionalism and renown of Firm A.

It is more complex for Firm A to organize international than domestic deliveries. The reason for this is that the import company is responsible for organizing the transport and this usually involves the coordination of a collection round to several different manufacturers in France or and other European countries. Therefore the import company has to communicate with the transport company. The chain and in particular the information flow is seen by Firm A as too long and too risky. Errors made by an import company, for example, have resulted in trucks arriving at Firm A before machines are ready for loading. Operating on an 'ex-works' basis, this means that the transport company incurs extra costs, which are invoiced to the import

company and eventually may be the source of disputes between Firm A and the import company.

It is clear that in the downstream international supply chain, the import company has the power:

“Today if we want to succeed in a country we need to have the right import company...it’s true that the key is the right partner.” (Export Director, Firm A)

The complexity of Firm A’s supply chain (*“it’s an anthill”*) can be appreciated when all the 600 upstream suppliers and the 4500 different component parts are taken into account. The Logistics Manager is responsible for a team of 20 people and the following internal Logistics processes: planning, scheduling, procurement, continuous improvement, supplies to assembly line, logistics methods and shipping. In terms of planning the main challenge is that demand is seasonal because farmers sow in the spring and spread fertilizers in the winter. Therefore the planning of production is smoothed across the year to avoid peaks occurring. To this end Firm A is prepared to hold finished product stock and to make offers to customers of special reductions if they purchase out of season.

“Supply Chain Management is in its infancy. We can say that with some suppliers we have a supply chain way of working. We collaborate with these suppliers to a great extent and this starts at the level of R&D. We integrate these suppliers at the stage of research and product design. During the whole product life cycle we communicate with these suppliers regularly. We share with them a vision of quality. We only do this with certain strategic suppliers: in the electronics sector.” (Logistics Manager, Firm A)

5.2.2. Firm B

Firm B is an agricultural machinery manufacturer and family firm based near Brest in Finistere and employs 140 people in France. The company was founded by the current Director in 1970 and its main product is the slurry spreader. It also manufactures and sells muck spreaders and loaders. There is now one subsidiary in Poland and another in China. The subsidiary in Poland was established because:

“The market seemed to us to be sufficiently large to create a structure that could respond to this market.” (Director, Firm B)

In the case of Poland, Firm B took the decision two years ago to set up its own manufacturing and distribution site, because of the potential size of the market. The pig industry is significant in Poland and this provides the raw material for Firm B's best-selling product: the slurry spreader. The site in Poland is effectively a parallel site as it produces a more basic version of Firm B's standard French machine. The Director explained that the Polish site has not yet acquired the *savoir-faire* to manufacture more complicated ones. Some suppliers are shared by both sites and some are distinct.

In the case of China, Firm B purchased a small site in order to produce components which are then shipped to the final assembly plants in France and Poland as welded sub-assembly parts. The reason given for this Foreign Direct Investment is that of cost. The Director said that the effect of offshoring part of the activity to China has not been to reduce the number of employees in France. This investment in China, however, took up a lot of the Director's time and was described as a "*long story*". When asked whether it was worth the effort, the Director replied that everything depends on how things evolve over time and noted that currency exchange rates can change rapidly in a good or bad direction. The international activity at Firm B started at the beginning of the 1990's with exports to the UK market. The Director's son was responsible for the development of this activity.

"The French market is not a market that offers a sufficient volume...so the solution in order to develop the company is to find foreign markets. There is no other solution. When you see the number of companies that have disappeared in France...if these companies had oriented themselves towards foreign markets, they could have survived. But a lot of companies restricted themselves to the French market and unfortunately due to a drop in activity...they declined and some of them have disappeared." (Director, Firm B)

To launch the internationalization process Firm B first used the assistance of the Chambers of Commerce and 'Bretagne Internationale' which provided help with visits to Trade Fairs or organized trips to other countries. As for working in collaboration with other agricultural machinery manufacturers, the Director was clear about the competitive nature of the sector:

"You need to know that in the agricultural machinery sector there is not a lot of agreement. It's everyman for himself." (Director, Firm B)

Firm B organizes its downstream international supply chain in response to the market. So that in some countries, where there is little activity, Firm B uses an import company. In some cases the experience with an import company has been unsatisfactory and it has been necessary to change. The Director acknowledges that the same situation can arise in France where the company can be let down by the performance of a dealership or salesman. The problem for Firm B is that the import company acts as an agent for other machinery manufacturers who are sometimes direct competitors:

“Of course we are not always the exclusive supplier. An import company can import competitors’ machinery. We’re not always there checking on what they are doing. We don’t really appreciate the fact that they are selling competitors’ equipment. But we can’t really impose our wishes. It’s up to us to be more technically proficient and at a reasonable price.” (Director, Firm B)

It should be noted that one possible advantage for Firm B is that the slurry spreader is a relatively simple piece of equipment in the world of agricultural machinery which does not require sophisticated technical assistance. As a result of lack of human resources Firm B also often relies on the agent to represent the company at Trade Fairs, which are key venues for the promotion of machinery in different countries.

In general the countries where there are no manufacturers of agricultural equipment are those which work well for Firm B’s exports. One example of this is the island of Reunion, a French overseas ‘*département*’ in the Indian Ocean, where Firm B is the sole supplier of its product range. On the other hand Germany is seen as a market which is very difficult to penetrate: where the machines are delivered if orders are placed, but time and effort is not spent trying to sell.

Firm B’s main competitor in the European slurry spreader market is a Belgian company, named Joskin, which, in addition to two sites in Belgium, set up a site in Poland in 1999 and another in Bourges, France in 2002. It has an annual turnover of 130m€ and employs over 700 people.

Machines are only manufactured when firm orders are placed because the slurry spreader is not necessarily standardized. The lead time for a client can be less than a month for a simple

machine and extend up to 4 or 5 months for more complicated ones. Firm B has some difficulties in meeting delivery deadlines:

“We are sometimes a little late...but it’s not catastrophic. According to what we hear in the sector, there are other companies that are sometimes four or five months late. That is not the case with us. It can be one month or a month and a half, maximum.”
(Director, Firm B)

5.2.3. Firm C

Firm C is a family firm with 205 employees and was created in 1946. It is the leading French manufacturer of agricultural trailers with 10% of the market and an annual turnover of 36m€. The founder of the company retired 5 years ago and the new Director is his daughter. Another daughter is now the Purchasing Director. 2000 trailers are produced per year and a new factory was built in Western Brittany in 2005 with a larger production capacity. Previously the firm was located in the middle of a small town, whereas the new factory is located in the countryside and more space is available. They only produce agricultural trailers and only sell to dealerships, not directly to farmers. The trailers include the full range from muck spreaders to livestock carriers. In total 15 different types of trailers are produced at their single site. However there are around 100 other manufacturers of trailers in France alone and at the European level there are larger competitors, such as Joskin in Belgium. The trailer market is seen as particular in France because there are still a lot of local producers:

“There are a lot of blacksmiths/metalworkers who have become trailer constructors in their villages and towns in France and who have managed to successfully build trailers. This is a completely atypical market. All that we can say is that we are the leader on this market. In France there are a lot of manufacturers. For us there are too many.” (Sales Director, Firm C)

On the upstream side, Firm C works on the principle that everything that can be constructed at this site will be. Certain specialist parts such as axles are ordered from renowned French suppliers.

The internationalization of Firm C was started in 1995 by the current Director, who was then Sales Director. However this process was a result of solicitation by foreign import companies, rather than an active search for new markets. It is still the case today that the firm is contacted

because of its notoriety as the leading manufacturer in France and that prospection for new markets is limited.

Agents outside France tend to contact Firm C rather than vice versa. The credentials of the agent are checked to see if they are reliable, usually through an Internet search. This is not seen as taking a risk with an agent, since Firm C works on the basis of buyer beware and payment is required in full when the order is placed.

“When we are not present in a country and when the customer pays for the product before he receives it, the risk is limited.” In addition Firm C also works on the basis that the buyer organizes transport of the trailer from the factory gate and therefore the Sales Director describes this as a situation of zero risk. As part of the practice of limited prospection in foreign countries only trade fairs in Germany and Belgium are attended.

This passive approach to internationalization has resulted in only 13% of total sales currently made outside France, although there is a will to improve this figure. The domestic market is seen as being vulnerable to changes in the Common Agricultural Policy and the export market gives Firm C the option of spreading risk. Currently Firm C is looking to target and develop specific markets.

Firm C employs one full time English-speaking salesman based in the UK, who deals with all the Anglophone countries and northern Europe and who works with a network of dealerships. In the case of Germany they work with a dealership directly from their site in Western Brittany and the Sales Director and his assistant reported that they were able to develop sales in Germany with this arrangement. They have one import company per country and they will demand from an agent that he offers the full range of Firm C’s products and does not represent other trailer manufacturers.

Production is in series, is not launched in response to orders and is not seasonal, but continuous throughout the year. When an order is received delays can vary from two or three weeks to three or four months. Firm C has the production capacity to ensure that deadlines are respected. Delivery dates are provided by production and there is an annual forecasting exercise in June. The efficient organization of production is seen as a force of the company, compared with other more craft-based competitors.

There are 100 different models available and each model has many possible options. These options are often required by different markets according to the standards in each country. For example Belgium requires signage for cyclists. Germany requires a rear braking system. In the UK the speed limit for trailers is higher than it is in France. The export market requires adaptations and flexibility which are imposed by country-specific regulations and additionally there are the options offered by the company, such as ten different wheel options for each trailer. A full range of options, in conjunction with technical complexity, are seen as the advantage that Firm C has over its competitors:

“A small local producer doesn’t want to bother itself with providing options for the export market. I think that you need to have sufficient size and capacity to be able to respond to these demands.” (Sales Director, Firm C)

5.2.4. Firm D

Firm D is a family owned company which currently manufactures a large range of agricultural machinery and has been in existence for more than 100 years. It has an annual turnover of 17m€ and employs 120 people at the main site near Rennes. Here they manufacture manure spreaders, vertical auger mixers, straw blowers and shredders. The second site in the Mayenne employs 40 people and was acquired as a result of a takeover more than 10 years ago and manufactures livestock transporters, slurry spreaders and trailers. The two sites are separate legal entities and each site manages its own purchasing budget.

The main Firm D product is the manure spreader. Because of the export market this is now a product that is sold throughout the year and is therefore easier to manage for Firm D. This is not the same for all products such as vertical auger mixers, straw blowers and shredders that are more subject to seasonal demand during winter and summer. An important feature of Firm D is that they have machines with many different options and very few are standardized. It is therefore difficult to adapt and anticipate customer needs.

The Purchasing Manager has 15 years of experience in Purchasing and Logistics in the Aeronautics and machine tools sector. He joined Firm D in 2012 after a brief period at Firm A. He is responsible for procurement, planning of production needs and purchasing. He has one assistant and manages a purchasing budget of 10 million € per year.

The industrial organization of Firm D is described as still at a craft stage and only in the process of becoming industrial:

“I compare industry in general and the agricultural sector because for me the SMEs are relatively recent in their approach. They are industrializing more and more. They are not completely organized as is the case in wider industry. In relation to the organization of the purchasing activity we cannot consider that we are in a mature organization. For me this means to make distinction between supply chain and procurement on the one hand and purchasing on the other, which should be treated upstream: all of the organization which enables the procurement people to work directly with production.” (Purchasing Manager, Firm D)

An industrial approach is not yet part of the mentality at Firm D. The separation of Procurement from Purchasing is seen as an essential precondition for improving the industrial organization of Firm D. For the Purchasing Manager, while the two activities are complementary, (the first is responsible for placing an order, flow management with suppliers and the second for putting in place a purchasing strategy covering the selection and monitoring of suppliers) the separation of the two activities would be beneficial. Currently this manager’s view is that his department is involved in tasks in relation to procurement which are not strictly his responsibility. He does a bit of everything.

Firm D has 250 different suppliers. The key suppliers occupy an oligopolistic position in the market and the final customer is reassured to see certain well renowned components and brands used in the machines that Firm D sells. These are principally Italian and German suppliers of transmission systems, pumps and distributors. In some cases Firm D deals directly with the supplier or in others it acts via a French agency. For many of these high value added components, there are only a handful of suppliers in Europe and for the Purchasing Manager it is not worth looking further afield for these components (to Asia for example) because of doubts about quality. In any case the Italian products perfectly meet Firm D’s requirements in terms of value for money.

The only products imported from China, via a French agent, are bearings and here the market is almost exclusively represented by Chinese manufacturers. The manager stressed that Firm D would never buy direct from China for reasons of quality. Relations with the Italian

supplier, however are good. This supplier has been involved in product development with Firm D and is therefore considered not simply as a supplier, but as a partner.

The biggest single part of the purchasing budget is taken up by spending on steel. Here Firm D has recently become part of a Purchasing Group which includes Firm A and Firm O; two larger complementary, but not competitive, companies in the agricultural machinery sector. This Purchasing Group is based in Paris and includes 15 companies from all over France, and from other sectors, such as furniture manufacturers. This allows Firm D to fix its prices over a period of 6 months and means that it is less exposed to market fluctuations and can benefit from volume purchasing. They are currently looking at the possibility of extending this purchasing strategy to cover other products such as metal tubes. Membership of this group which has only been in existence for 6 months is seen as the first step in a purchasing strategy.

The collaboration with Firm A and Firm O is informal and takes the form of a 'club' with the possibility of development into further joint projects. Initially Firm D was contacted by Firm O on the express condition that direct competitors would not be integrated into this 'club', whose purpose is seen as clearly strategic:

“This allows us to fix a strategy and to maintain our position as a manufacturer which is more and more threatened by foreign competition today. There are more and more competitors from Eastern Europe that are arriving on the scene. The margins are very tight.” (Purchasing Manager, Firm D)

For the measurement of supplier performance three criteria are used: time, quality and cost. Excel is the principal measurement tool. The company functions with what is termed, historically good relations with suppliers. However Firm D is not yet in a position to function with the tools that the manager would like to put in place. The system of supplier management is not optimized.

In general the suppliers' suppliers are unknown to Firm D. Sometimes the fact that a supplier has subcontracted part of its activity to an offshore manufacturer in an emerging country is known to Firm D, but it does not have any specific requirements for 1st or 2nd tier suppliers. The manager sees the necessity to set up specifications for suppliers which would include supply chain policy, packaging and other requirements. No formal legal contracts with suppliers are used. However no major difficulties with suppliers have been experienced to

date. On the other hand there is an acknowledgement that no system for setting quality standards has been put in place and consequently breaches are not formally registered and monitored. There is no Quality department.

With the slowdown in demand in 2009, because of the crisis, the decision was taken to bring back in-house those activities that had previously been outsourced to ensure that the production activity was maintained and employment protected, wherever possible.⁹ The strategy is now to carry out welding, laser cutting and component machining in-house and to invest in machinery. There are some functions which Firm D is almost capable of doing themselves, but it knows that there are other companies with greater capacities.

There is no Logistics Manager at Firm D. Internal flows remain the responsibility of the Director of Production. Stock management is another area in need of improvement, since here a discrepancy has been identified during stocktaking between theoretical and actual stock levels: unsurprising perhaps, given that the company has to manage the supply of an estimated 15,000 parts. The problem of stocks is accentuated by the fact that many different models are produced by Firm D with a range of different possible options and furthermore there are seasonal fluctuations in demand.

The difficulties of Logistics management and internal organization are further compounded by the fact that currently demand for Firm D's products is high, because the agricultural market is performing well and clients have a need to invest. Since Firm D's products cover both the livestock and cereals sector and the price of cereals is rising at the moment, presence in these two sectors allows one to compensate for the other, when necessary.

The key differences between Firm A and Firm D, which are both located near Rennes, as identified by the Purchasing Manager, is that Firm A has recently moved to a brand new factory, it has the capacity to produce its agricultural machinery in large series and it has been inspired by the automobile sector in its approach to internal organization. Techniques such as lean production, the 5S have been put in place at Firm A, but not at Firm D. Even though both companies operate the same ERP, Firm D does not use it in the same way as Firm A. In addition to formalizing the distinction between Procurement and Purchasing, Firm A has also

⁹ Interestingly, this is the exact opposite of what Hopkins and Wallerstein (1994) suggested: that at times of crisis companies would seek to outsource and shed activities.

set up a Quality Department. For the agricultural world, Firm A's factory is seen very much as a model.

5.2.5. Firm E

Firm E was created in 1959. At its site in the Vendée, the company employs 70 permanent and 30 temporary staff. It is a company which specializes in the manufacture of very large corn picking machines. The annual turnover is €25m. As part of the exploratory research both the International Sales Manager and the Purchasing Manager were interviewed. 30% of turnover is obtained on the export market. Maize is an activity which fluctuates. Currently there is more and more development of maize in France and slightly less abroad, so the focus is more on the domestic market. However the objective is to develop in different countries. The fear is to have a rival manufacturer who successfully copies the machines. The market for corn pickers is very much a niche market. In 2012 a merger with 3 other companies was completed: one in the USA, one in Holland and one in the UK. In total these companies employ 700 people. Following this merger Firm E does not have a direct competitor in the global market for corn pickers. The production for the Vendée site is around 40 to 50 machines per year, which cost around €1m each. Every machine which is produced is more or less personalized. There is not a just-in-time mentality as in the automobile sector. The client has to wait approximately 9 months for delivery.

Firm E has a distribution agent in each country responsible for both technical advice and sales. These are agricultural machinery dealerships. In general relations with these agents are good:

“If there is a breach of contract, we won't continue with the agent, but in most of the countries we have good representatives. We have non-exclusive contracts, which mean that we can sell directly to farmers in these countries. Let's take the example of Sygenta in Serbia. If Sygenta decides to buy directly from us we cannot refuse this sale. So our agent over there has not dealt with the sale. However we will pay him a commission for the technical maintenance of the machine. So today obviously we have customers who want to deal with us directly.” (Sales Manager, Firm E)

Many clients want to deal directly with Firm E and not deal through an agent. The agent is trained by technicians to be able to provide an after sales service to the customers. The contracts are Firm E's contracts that are imposed on the agent. Sometimes they are dealing

with very large dealerships, but they have no other partnerships outside the group. In general while the Sales Manager prefers to deal with smaller organizations than larger ones, the price of the machinery means that in many cases he is dealing with large ones.

Frequently the initial contact is made by the dealership in a foreign country which is interested in their machinery and wants to represent them. It is very rare to sell a machine in a country without any representation acting on behalf of Firm E. Because of the need for technical advice it is necessary to have someone based in the country. Additionally seed manufacturers, such as Sygenta, help to develop markets in new countries for Firm E by keeping them informed about sales of maize seeds. No formal processes of evaluation of agent performance are in place. This takes place informally.

Therefore there are two different sales models. The first is where the sale is made direct to the customer and the agent in the country takes a commission for after sales service and the second is where the sale is made to an agent who then deals with the client. In general the second option is preferred. These contacts with foreign distributors have often existed for 15 to 20 years or more.

The role of trade fairs is simply to demonstrate that Firm E is present on a foreign market:

“The purpose of Trade Fairs is not necessarily to get to know the country: it is to show that we are present. But in recent years we are doing fewer Trade Fairs.” (Sales Manager, Firm E)

Axema, the French agricultural machinery manufacturers’ employers group, recently organized a seminar in Serbia, a growing market, with a group of agricultural machinery manufacturers which the Sales Manager will attend to promote Firm E’s machines. But this is a rare example of working in collaboration with other organizations. No examples of state aid or working with external advisors and consultants in the area of export activity could be given.

For the transport there are two possibilities: either the client organizes his own transport on an ex-works basis or as in 95% of the cases, Firm E organizes the transport often at the request of the customer.

The French market is seen as more difficult than the export market simply because the French customers are more “vigilant” about product price and their eventual margins than the foreign

customers. However the French market is more homogenous and stable whereas some foreign markets such as Serbia and Eastern Europe are developing rapidly:

“I sell fifteen machines for export this year and five of those are in Serbia. Commercially it is more difficult in France. The margins in the export market are larger.” (Sales Manager, Firm E)

Firm E also has a production site in China where they manufacture a machine specifically for the Chinese market. In terms of improvements the Sales Manager would like to see customs procedures greatly simplified since they are very time consuming.

The Purchasing Manager has a purchasing budget of 10 m€, 15 product families, 450 different suppliers and 20,000 references. In terms of purchasing, the greatest concerns are the diversity of parts, the number of different product groups and the small volumes purchased. This means that certain suppliers who only supply large quantities are not accessible to Firm E. Short delivery times are required and certain suppliers do not respect these deadlines.

The Purchasing department is responsible for both purchasing and procurement. There are three employees in the department, including the manager:

“In SMEs the functions are a bit mixed. That is to say that the purchaser also has a procurement function. We have to be very careful because 60% of the price of machine is the purchased parts.” (Purchasing Manager, Firm E)

The Purchasing Manager’s background is in larger companies in the automobile sector where there was a clear separation between purchasing and procurement. For him this lack of separation is a weak point for SMEs because it means that employees have to be polyvalent in a key function where delivery deadlines have to be met.

The first and second largest suppliers are German. About half of the purchasing budget is spent outside France. From Germany hydraulics, cabins and engines are purchased. Italy is another European country with some large and important suppliers. No great distinction is made between West European and French suppliers:

“For me the cultural barrier in Europe no longer exists. These cultural barriers in Europe are trivial...in Europe we’ve managed to standardize things.” (Purchasing Manager, Firm E)

He does not sense that he is in a weak negotiating position in relation to his larger German or Italian suppliers, because even small volumes can be of interest to suppliers, perhaps above all in a time of crisis. An SME may be seen as less of a priority, but it remains a business opportunity for the supplier. In certain cases the supplier will refuse to deal with Firm E directly and request that they pass by a distributor, but this remains rare. Also the fact of belonging to a larger group now changes the company's negotiating position and confers more purchasing power.

In terms of relations with suppliers outside France for the Purchasing Manager reported that for him, personally, the language is not a barrier. However in the company only 3 or 4 people speak English which is seen as inadequate. For him everyone in the sales or the R&D department should be able to speak English.

Outside Europe there are very few suppliers. There is currently a joint venture with a Chinese company for relatively small quantities - approximately 50,000 euros per year. Sourcing from China is seen as interesting when it concerns high volumes, where there is sufficient time to negotiate and where there is someone in the country to guarantee quality and delivery deadlines. Previously two years' supplies of jacks were bought from a Chinese supplier and the majority was not of good quality. This experience is considered a failure and was not as promising as the company had expected. The priority is for suppliers to be extremely reactive and therefore European suppliers are preferred. With a Chinese supplier there is always two months of maritime transport involved.

At larger companies where the Purchasing Manager was employed previously, it was possible to source from China because these companies had direct employees in the country that could devote the time necessary to ensure quality and delivery standards. However in this SME this is not feasible.

Although part of a larger group of 4 companies, one of which is American, relations with American suppliers can be complicated, strict and formal. When a product is bought, there is a non-negotiable package which goes with it. All purchases are made with a contract which is not the case in France, where this is not compulsory. Each country has different ways of doing things. For example the Belgians always insist on being paid in advance but their prices are lower.

The process of supplier evaluation is still in its infancy and this is a project which is in development:

“I am starting to do supplier assessment. Each of them has a score depending on their logistic service, their price and their technical level. I put these three scores together.”

(Purchasing Manager, Firm E)

Firm E has started to work together with the three other companies in the partnership (English, Dutch and American) on joint sourcing projects. However apart from this example, there is no partnership working in the field of purchasing. The Purchasing Manager acknowledges that this could be an interesting possibility, but he adds the rider that the Vendéen character does not like to share a great deal. Up to now Firm E has adopted a defensive strategy and doesn't like to communicate figures. The company is beginning to open up little by little, but is not prepared to optimize its purchasing by sharing information with other companies. For example it has certain advantageous prices with certain suppliers and it seen as too risky to disclose these details to other companies.

“If we open this Pandora's box, we will destroy the trust that we have built up with certain suppliers.” (Purchasing Manager, Firm E)

However Firm E is not technologically equipped, in terms of IT, to exploit the opportunities of e-commerce. There is no ERP in place. An internal GPAO is used. All of the operations for reporting and collecting statistics are carried out in a time-consuming manual fashion, extracting the information from a software package and then transferring to an Excel file.

In the Vendée, business is often carried out on an emotional or affective basis, because family or personal contacts have existed over a period of time. These connections with subcontractors and suppliers tend to have deep roots:

“There is an industrial structure in the Vendée which is very developed. The majority of suppliers or subcontractors are within 50 kilometres of the factory. These relationships are very important in terms of reactivity. There are emotional ties also which need to be taken into account.” (Purchasing Manager, Firm E)

These historical close links with local suppliers are very much seen as a positive strength for the company.

5.2.6. Firm F

Firm F was founded in 1993 by an inventor of an independent disc machine in the region of Nantes. The motivation of the founder was to innovate constantly, to register patents and to work as closely as possible with farmers, so that yields could be increased. Additionally the objective of Firm F has been to produce machinery which works the soil with a respect for the environment. Therefore Firm F remains opposed to ploughs, because they turn the soil at a depth where the structure of the earth is destroyed and worms displaced. Firm F's machines lift and divide the soil and then replace it so that there is better drainage, the roots are deeper and less fuel is consumed.

Innovation is vitally important for Firm F and it employs a team of six R&D engineers out of a total staff of 70. These engineers are constantly seeking to make changes to the machines in order to increase efficiency, reduce fuel consumption, automate processes and improve yields. Patents are regularly registered with the authorities.

In 2012 Firm F was taken over by a Polish group, which is the biggest manufacturer of agricultural equipment in Poland and in terms of turnover is almost ten times the size of this French SME. Firm F has been increasing its turnover to 14.3 million euros in 2012 and is present in 35 countries. The objective of the merger is to accelerate the development of the firm.

The Logistics Manager has been with Firm F for one year. Previously he worked at a larger agricultural machinery manufacturer. Firm F used to be a craft-based company and the Logistics Manager was recruited to introduce industrial methods in line with his previous experience. The advantage of Firm F as an SME, for this manager, is that it is highly innovative and reactive. It can bring a new machine to market within 6 months, whereas larger companies tend to take much longer. There are 6 full time staff in the research department and 50 people in total on this site. They produce 1000 machines per year. They have recently standardized the product range and aim to increase production.

Internationally the company is present in Europe and Eastern Europe, South America, Africa Australia, New Zealand and Japan. Prior to the purchase by the Polish company, 60% of annual turnover was obtained in France and 40% from export. The trend is continuing in the same direction with sales from exports increasing. There are three salesmen who travel to

different countries and they deal directly with import companies. There are different competitors in Firm F's market sector that manufacture almost exactly the same machine. This can pose a problem in relations with the different import companies in terms of prioritization:

“We try to make the import companies loyal to us. We can offer bonuses. We can have things to offer them and we also try to work on the brand image. Selling one of our machines is not about selling a mass market product. It's something noble and beautiful. It's an upmarket piece of machinery.” (Logistics Manager, Firm F)

On the other hand the Polish partner company is located on the mass market segment and therefore a complementary marketing strategy has evolved.

There are some relationships with import companies which have lasted for a long time. Some are based on contracts, others are informal. Relationships are judged on the basis of sales and where sales are below expectations, replacements are sought. There is a product which is relatively expensive, so selling it can be difficult. Technical advisers are sent to foreign countries to train the final customer from the outset since it has been noted that in the majority of cases problems with machines are caused by an incorrect usage by the farmer.

For strategic reasons there is no partnership working with other French agricultural machinery companies in the area of exports: *“Working with competitors is certainly not on the agenda.”* However one example was cited of working with a trailer manufacturer to develop a machine which is attached behind a trailer, but this is a first and it remains rare. This was a service directed at a particular group of farmers.

In the area of purchasing no group purchasing is in place, but a sourcing strategy focused on China has been developed over a period of more than 15 years. Firm F's China office employs directly two people who deal with local subcontractors. The practicalities of sourcing from China are described as follows:

“The technical department checks the purchased parts here. We go to China once every three months and we have two permanent staff over there: a Quality Controller who visits all the sites and another person who deals with the sourcing and checks all the new potential suppliers.” (Logistics Manager, Firm F)

In this way all parts are checked for quality before being loaded into containers in China. With this structure in place the company is able to avoid quality defects. As a result there are fewer and fewer suppliers in France, primarily because of concerns about price. In France the quality is very good and delivery times are better, *“but the prices are frankly exorbitant”*. For French-made welded parts the price is around 4€ per kilo, from China the same quality parts with transport would be 1.60€ and from Poland 2€. ¹⁰ With sourcing from China of course there is an enormous need to anticipate correctly future production requirements. Firm F was one of the first French agricultural machinery manufacturers to develop sourcing from China in 1998. Initially after some bad experiences this current structure was set up.

Recently some parts have begun to be re-sourced from France. Chinese standards are not the same as in Europe and this can mean that sourcing strategies have to be reconsidered. The value of having a well-known brand German or Italian supplier is seen as less important than the total image of the machine. All of the parts which are needed in large quantities come from China. Everything which is highly technical, precise and demands rapid reactivity comes from France and between the two, there is Poland. In the future it is expected that approximately 60% of the purchasing budget will be spent in Poland, 30% in China and 10% in France.

The recent purchase by the Polish company was initially a culture shock. Despite the size of the company with 1400 employees, according to the manager, the Poles tended to have an inferiority complex and the dialogue was formal and directive. But with the passing of time confidence has grown. The Polish company possesses 4 factories in Poland and has a large distribution network throughout Eastern Europe. Communication with the Polish staff is always in English. The fact that few people at Firm F speak English is seen as a big handicap: This poor level in English is in spite of the fact that the average age of employees is around 30 to 35 years. No use is made of state or regional aid, or private or public consultants. *“We do everything ourselves on our own.”*

In reply to a question about what the new Polish company has brought Firm F, the response is investment and in particular a new factory that opened in November 2014 at Ancenis,

¹⁰ However it should be noted that these price differences do not take into account the complete cost of global sourcing which would include time delays, staff costs and a full range of transaction costs.

adjacent to the motorway from Paris to Nantes. The transfer of technical knowledge is seen as from Firm F to the Polish company rather than the other way around and Firm F has been able to retain a good deal of autonomy. For Firm F there has also been a change in working methods and restructuring with the objective of reducing lead time.

Globally there are certainly risks in the organization of this complicated supply chain, which have to be identified and known. There are supplier performance indicators in place. And on the downstream side with the import companies, the only indicator is the number of machines that they sell. The global supply chain is not seen as impossible to manage:

“You have to have confidence in the people working for you and be able to delegate correctly. Once the show is on the road, it works.” (Logistics Manager, Firm F)

5.3. Larger companies in the agricultural machinery sector

How do larger companies in the same sector organize their global supply chains? Are there significant differences in their international relationships with partners compared with the SMEs, previously cited? Or do they face the same kinds of problems and have they put in place similar structures to effectively manage their global supply chains? Interviews with managers in three different larger companies were carried out in order to address these questions: firstly a tractor manufacturer, secondly a manufacturer of ploughs and finally a specialist in loading equipment, attached to the front of tractors.

5.3.1. Firm M.

Firm M is a leading German multinational manufacturer of tractors. One of its major sites is located in Le Mans, France. From this site tractors are sent to nine European subsidiary distributors and other import companies. It is the role of the Export Director at this site to coordinate physical and information flows between Le Mans and the foreign based subsidiaries or import companies. The production system that has been put in place is based on forecasts. Each month estimates are updated for the year and firm orders are placed in the SAP system, which allows a production plan to be built. Each week there is a visibility of production which is frozen for the following four weeks. This in turn allows a program to be sent to suppliers. This system is not, however, without difficulty in terms of the relations between Firm M and its foreign distributor subsidiaries. The Export Director described the problem thus:

“There is a monthly meeting with them during which we talk about estimates and also about other activities, because each country has its special features. In particular we talk about delays in delivery. Since our biggest worry with them is that they have given me their forecasts and the orders are not there, in accordance with the forecasts. I promise them a date and unfortunately because of a problem in production, I cannot deliver on that date. From the farmer’s point of view, in the case of a single tractor, it is very difficult to explain why his tractor is late.” (Export Director, Firm M)

The reason for delays in delivery is linked to a lack of flexibility in production. The industrial tool was described by the Export Director as a “*bulldozer*” which cannot be changed, once launched. The mixed system of production means that, for example, 50 identical tractors cannot be manufactured over a twenty four hour period, but that there has to be a sequence of production which is relatively mixed: a big one, followed by a small one, followed by a medium sized one etc. In the current circumstances of a volatile market, the Export Director bemoaned the fact that it will probably be those tractors planned for production in the next month, which will be the ones that are not selling.

Communication with the foreign subsidiaries is monthly, weekly and even daily with larger customers. There is a need to animate these meetings and to think more globally about improvement plans. Additionally there is a need to be honest about delays as early as possible. Many of these meetings are face to face requiring regular travel. While communication between Le Mans and the foreign subsidiaries is in general good, there are exceptions as the Export Director acknowledged:

“There are some cases where it is more difficult because the culture is different. I will say that with the Russian Federation the communication is very difficult, because they do not operate as we do. Or I could say that I do not operate like them. The Russians are very different from the Europeans. We are very different from them. And they do not address the topics in the same manner. In fact it is more complicated. I cannot say that it is a very good level of communication.” (Export Director, Firm M)

The majority of the subsidiaries in the European sales network have been in place for several years. New ones are added regularly. Ukraine, for example, dates from last year. When Firm M wants to acquire and enter new markets, they have to start from scratch. An importer must be found and a distribution network created. When the volume of sales starts to increase and

the market is significant, Firm M invests in a subsidiary in the country. Either the German HQ purchases an existing network or it installs its own network. In general there is already a core team that sets up the subsidiary and afterwards employees are recruited locally, with the support of Germany.

On the upstream side, since 2006 Firm M has put in place a global sourcing strategy, with the objective of reducing costs and of accessing and developing suppliers in Eastern Europe, Asia, Turkey and North Africa. This strategy has been initiated and piloted by the purchasing department which is completely separate from the procurement department. Indeed the purchasing department is located in Paris while the procurement department is based at the production site in Le Mans.

The sourcing activity can now be divided into three geographic areas which broadly fulfil three different functions: firstly French and Western European suppliers which are well-established on the market as the leading brand suppliers. Owing to this recognition, it is a requirement of the market to include their product on the tractor. Secondly there are those suppliers in Eastern Europe which have become relatively large, have often worked with German companies since the beginning of the 1990's, are familiar with European standards and use the same steel. This part of the global sourcing was referred to by the Procurement Manager as a success. The third category is for more standard, low cost parts from Asia that present problems of a logistic nature for Firm M:

“All of these flows are a long distance from our site and therefore present logistic constraints compared to purely European supplies. These are the associated costs and time of transport. The issue of transport becomes significant when there are anomalies and our flows have to be precisely studied and managed to avoid stock outs on the assembly line.” (Procurement Manager, Firm M)

Despite these logistic risks of sourcing from distant countries, Firm M continues with the global sourcing project through upskilling and developing foreign suppliers, by sending teams of quality and industrial method employees abroad. The scale of this commitment can be judged by the fact that 1.6m€ was spent on sourcing parts outside Western Europe in 2013.

5.3.2. Firm N

Firm N is a Swiss multinational with ten factories in the world and this site in north-west France specializes in the manufacture of ploughs. Production of this piece of agricultural machinery was described by the Supply Chain Director as unlike the automobile sector, because every machine ordered by a client is almost a unique example since it is composed of many different options. The Supply Chain Director at Firm N who is responsible for the upstream sourcing strategy, but does not have a global vision of the supply chain, stressed the importance of quality in the management of suppliers. For this reason the majority of purchases are made in Europe and Firm N carries out a number of regular visits to suppliers to ensure quality is assured and to help suppliers optimize production methods. For this practical reason suppliers are preferred who are located in neighbouring countries:

“We cannot select suppliers that are too far away, if we are going to do four or five visits. This takes a lot of time. Before we can have a supplier who has achieved the level of quality required, we estimate at least a year. The most important part of the job for the Purchasers is the management of the panel of suppliers: to identify the suppliers who will be able to respond to our demand.” (Supply Chain Director, Firm N)

From Asia, Firm N procures low risk, high volume, relatively simple parts and deals directly with traders rather than suppliers. The risk of quality problems is therefore passed onto the trader, since Firm N communicates the specifications to the trader who then places an order with a supplier.

In answer to a question about the current trends in terms of sourcing, the Supply Chain Director replied that the most important issue today is supplier reactivity, given that Firm N aims to continually make improvements to its equipment, either for technical reasons or to distinguish the company from its competitors. With its ten factories in the world Firm N adopts a strategy of local production for local markets and the purchasing strategy follows this approach:

“Every time that we open a factory in the world we see what could be the advantages from a purchasing perspective and work with these structures to be able to develop our sourcing in low cost countries. To see what could be the possibilities. These are things which are in constant evolution.” (Supply Chain Director, Firm N)

In terms of the future of the upstream supply chain Firm N is actively looking at the organization of transport from suppliers with a view to reducing costs, pooling resources and achieving full truckloads. A project is currently underway to pool transport services from suppliers in Italy. With reference to make or buy decisions, the philosophy of Firm N was described as producing internally as much as possible and keeping the knowledge on the site. The components that are manufactured by suppliers are in general parts which do not have a lot of value added and therefore easier to produce. However forge work, welding and machining, described as “noble trades”, are performed in-house. The Supply Chain Director reported that given their level of expertise in these areas, Firm N remains competitive compared to its competitors. Additionally recent investment programmes in new machinery are also features of this site, with robotization of certain routine tasks now in place, as was evident to the author on a tour of the factory.

On the downstream side Firm N also works with import companies in many European countries but has subsidiaries in others. 75% of turnover from the site is achieved through exports, above all in Europe and most importers will organize the transport themselves and work on an ex-works basis.

5.3.3. Firm O

Firm O is based near Rennes, where it employs 430 people and manufactures loading equipment which is attached to the front of tractors. It has a sister company which makes similar products to Firm O and which can be a competitor on the market and was a takeover of another company 4 years ago. It also has another sister company in India established 18 months ago and aimed at the local market because Indian tractors are not the same as European ones and a new company in Brazil recently announced which delivers to a particular tractor manufacturer. In both cases these are completely new activities which start at zero.

The reason for foreign investment in both the case of India and Brazil was to follow a particular tractor manufacturer which is already based in that country, even though Firm O has no business relations with that manufacturer elsewhere in the world). Both foreign sites have been set up close to the tractor manufacturer and Firm O positions itself as the mother company in terms of savoir faire of these other ‘sister companies’.

The Supplier Chain Director at Firm O and the Supply Chain department is responsible for internal flows and parts procurement. Neither purchasing nor sales are within its remit and downstream transport is on an ex-works basis and therefore foreign import companies organize the transport of machines from the site. In Incoterms for the suppliers all is on 'FCA franco', a historical choice, which the Supply Chain Director is questioning to see if there is an economic interest in changing to a system of collect from at least the major suppliers. Currently two possibilities are being explored: the first concerning their own supplies and the second concerning flows including other companies through the medium of "Bretagne Supply Chain, a club of companies organized by the local chambers of commerce. The main suppliers are in the East of France, in the north, northern Italy and a lot in the north-west of France in the metallurgy and machining sectors.

However the policy of the group has always been to internalize manufacturing processes as much as possible: *"Our value is to control the maximum amount of activities ourselves."* Additionally Firm O has a diverse product range, so they try to manufacture at the last moment. If they subcontracted production a lot they would have more stock and more flows to manage. An exact number of the total product possibilities or configurations could not be given by the Director: *"There are configurations which have never been produced but which could be produced next Monday and will only be produced once."* Originally the site was a forge and so metalwork is the skills base of the site which has been maintained since the founding of this family company, which is now managed by the second generation.

On the downstream side Firm O never deals with final customers directly but only with dealerships that cover about 75% of the French territory. The remaining 25% is covered by a partnership with a large tractor manufacturer. Firm O's loaders are sold under the brand name of the tractor manufacturer thereby taking advantage of the larger company's more extensive distribution network. Every day trucks from the tractor manufacturer leave the site with Firm O's loading equipment. A logistics service provider distributes the machines to the dealerships in France.

In Britain and Germany there are dedicated Firm O subsidiaries that receive one or two truckloads from the site per week. In other countries they either deal with an import company or directly with a dealership. The European import companies collect from the MX site.

Delivery of goods outside France, known as “le grand export”, is the responsibility of the customer on an ex-works basis. Exports are increasing as a % of total sales:

“The French market is mature. So our growth will not take place on the French market. Our strategy is to move into accessible foreign markets.” (Supply Chain Director, Firm O)

More distant countries present political problems. Brazil, for example, is difficult to export to because of customs and exchange restrictions. Firm O has customers in New Zealand and Australia but an increase in sales to these countries would pose extra logistic costs which the customers might not be prepared to tolerate.

The role of the Supply Chain Director has been to meet the recent growth in demand through an industrialization of the internal flows. So his focus has been on the improvement of internal flows and capacity. During this project Firm O was aided by a firm of supply chain consultants for a period of four years. The completion of this long project of internal flow improvement is a source of pride to the firm. Now that this phase has reached maturity with logistics teams in place the focus will turn to the improvement of external upstream flows through strategies of transport and purchase pooling. This strategy is being considered in conjunction with Bretagne Supply Chain and is at an exploratory phase: different options are being considered with different transport companies.

5.4. Conclusion

In this chapter the findings of the initial exploratory research stage have been presented. This has developed an understanding of the current circumstances of SMEs in the sector and of larger firms. It is now possible to compare the current global supply chains and organization of firms in this sector with historical cases, outlined in chapter 2.5, so that the evolution and differences can be clearly identified. Table 5.1 shows these differences. There are three key points that have emerged from this exploratory stage:

Firstly on the upstream side, in the historical case suppliers were local and manufacturing processes internalized. Today SMEs tend to employ one purchasing manager, responsible for both procurement and purchasing, and struggle to impose professional strategic sourcing practices. Low value-added components tend to be sourced globally while higher value added parts are sourced from France or other Western European countries. Supplier evaluation and

monitoring is in its infancy. On the other hand larger firms in the sector operate global manufacturing strategies with local suppliers linked to local factories in different regions. Resources and specialization produce a clear separation between purchasing and procurement and formalized contracting with and monitoring of suppliers.

Secondly, in the internal organization, the historical firms were found to underinvest in new machinery, to produce a wide range of different products with a large number of skilled workers and to rely on craft-based methods. The result was that their critical assets were probably the metalworking skills of employees, used to doing everything with very little. The arrival of new firms on the market with more modern machinery and methods meant that these firms were soon eclipsed. In the present day, a distinction can be made between smaller firms that operate craft-based production methods and larger SMEs that have invested in new purpose built sites and offer a range of options that adds complexity to production.

Finally on the downstream side, the key difference between the three types of firms is that historically the market was almost entirely domestic, while for modern firms the market is global. SMEs demonstrate a variety of practices and organization: some have formed group structures, others partnerships in specific countries. All seek reliable distributors in foreign markets and to raise their profile. The larger firms address the agency problem by internalizing foreign distributors within the hierarchy, but this does not necessarily eliminate the problem of reliability or cultural distance.

This chapter has presented a direction of flow logic to the reporting, so that upstream, internal and downstream issues have been separated out, since this is the initial logical way to think about supply chains and approach the research: interview purchasing managers about the upstream, logistics managers about internal organisation and sales managers about the downstream. This approach is continued in the reporting in the next research stage presented in Chapter 6, but here, as the process of relating the interview data to the theoretical framework advances, a conceptualization takes shape that transforms the directional way of thinking about the research into a model based on Governance, Control and Power – the argument being that these themes are the main priorities for these SMEs in managing their global supply chains and thus, what this research is about

	Historical cases (see 2.5)	SMEs (see 5.2)	Larger firms (see 5.3)
Sourcing/upstream relations	<ul style="list-style-type: none"> - predominantly local suppliers even for raw materials such as wood - some raw materials imported such as coal - in-house foundries permitted maximum internalization of the supply chain 	<ul style="list-style-type: none"> - lack of separation of purchasing and procurement in smaller SMEs - rare example of offshoring a welding activity to China and setting up parallel production site in Poland - some global sourcing of low value added, high volume standard parts, but incidents of quality failures - high value-added specialist parts sourced in western Europe - large number of references and small purchasing volumes - supplier evaluation and performance monitoring in its infancy, absence of contractualization 	<ul style="list-style-type: none"> - ability to dedicate resources to selecting and monitoring suppliers to ensure quality and flexibility - in some cases factories located globally practicing local sourcing for local production for local markets - clear separation between procurement and purchasing functions - formal contractualization with suppliers
Production/internal organization	<ul style="list-style-type: none"> - located in town centres and near multimodal logistic hubs - lack of investment in new machinery - reliance on cheap skilled labour sourced from rural areas - paternalist management - state subsidy to farmers allows firms to develop and achieve high growth levels in immediate post war period - wide range of different machinery produced 	<ul style="list-style-type: none"> - market positioning as final assemblers and a tendency to subcontract, though some variations - the larger the SME the greater the likelihood of a range of product options and the more this adds complexity to production - larger SMEs have invested in new purpose-built sites outside towns and modern industrial and logistic methods - smaller SMEs practice craft based industrial systems - evidence of both formal and informal partnerships and group structures 	<ul style="list-style-type: none"> - resources allow investment in new machinery and consultancies to keep value adding skills and knowledge in-house - industrialization and improvement of internal physical and information flows - challenge of matching large scale production systems with flexibility required by rapid changes in demand

	<ul style="list-style-type: none"> - combination of supply and demand side factors, internal failings and conjunctural challenges led to decline 		
Distribution/downstream relations	<ul style="list-style-type: none"> - customers predominantly national: fairly poor export levels (10%) despite efforts - distribution by rail to depots in other regions and by road to nearer customers 	<ul style="list-style-type: none"> - international development in concentric circles, nearest countries accessed first - evidence of both active and passive export strategies - those SMEs that put most resources into promoting products in export markets are most successful - absence of use of regional and state institutions for aid in exporting - use of import companies, but no evidence of setting up foreign distribution subsidiaries - some evidence of country specific partnerships with larger companies - ex-works Incoterm requires effective coordination between SME, import company and transport firm 	<ul style="list-style-type: none"> - use of import companies and creation of foreign distribution subsidiaries - bringing distribution agents within the hierarchy as foreign subsidiaries does not eliminate the agency problem, often linked to cultural differences - managing subsidiary's dissatisfaction with delays in delivery becomes important

Table 5.1. Summary of differences between historical cases, SMEs and larger firms in the agricultural machinery sector

Chapter 6. Explanatory Research

6.1. Introduction

Following the exploratory research phase, which gathered information and knowledge about the history of the agricultural machinery sector, current SMEs and larger firms, this chapter purposefully narrows the focus onto SMEs, with the objective of seeking explanations to questions about how and why their global supply chains are managed in particular ways. The specific focus is on upstream and downstream relationships with geographically dispersed global suppliers and distributors and the challenges that these relationships pose. Through these semi-structured interviews the aim is to obtain a clear idea of how these purchasing, logistics and export managers perceive the globalised environment in which they operate on a daily basis. The details of the ten SME managers and their companies participating in these second stage explanatory interviews are given in Table 6.1 below:

Firm	Turnover	% export	Staff	Main product	Interviewees
A	42m€	30%	200	Seed drill machines	Purchasing Manager
C	36m€	22%	205	Trailers/Spreaders	UK agent
D	18m€	28%	115	Trailers/Spreaders	Export Manager
F	12m€	50%	50	Soil looseners	Logistics Manager
G	17m€	0%	120	Trailers/Spreaders	Purchasing Manager
H	8m€	38%	50	Trailers	Purchasing Manager
I	n.d.	65%	250	Seed drill machines	Export Manager
J	20m€	3%	120	Buckets/Excavators	Purchasing Manager
K	11m€	8%	80	Soil preparation	Purchasing Manager
L	13m€	12%	90	Livestock equipment	Export Manager

Table 6.1 SME Managers participating in Stage 2 explanatory interviews

This chapter is organized into three sections: firstly a section that focuses on dyadic relations in the upstream supply chain and secondly the downstream supply chain. Finally the role of inter-firm networks and strong ties is examined. The subject of global supply chains can be divided logically and conveniently into those matters concerning relations with suppliers, those concerned with distributors/customers and those that relate to the functioning of networks. As shown in Table 6.1, four managers dealing with the downstream were available for interview, while six managers responsible for upstream flows agreed to take part.

However, it should be noted that Export Managers were more heavily represented in Stages 1 and 3 of the research programme, as shown in Appendix I. Hence over the entirety of the research a balance of upstream and downstream sources was obtained.

Out of the mass of interview transcripts and the initial coding process have emerged ten focused or 2nd order codes (small worlds, the trend towards global sourcing, change and professionalization, the problem with big suppliers, make or buy, finding information about foreign distributors, monitoring foreign distributors, bottom of the pile and in a competitive market, relationships over the long term and are strong ties a blessing or a curse?) These 2nd order or focused codes form the title of each subsection of this chapter.

This focused coding enables a more analytical approach to be taken. The objective is to highlight the differences between companies, the explanations given, the different reasons behind actions and decisions, as well as some of the perceptions of the managers of their environment. At the end of this chapter there is a brief summary of the findings.

The questions that formed the basis for these semi-structured interviews are given in Appendix III. At the beginning of each subsection of this chapter is a data structure table, which shows all interview extracts relevant to the subsection heading or focused codes. The extract reference shows the location of each particular extract in the interview transcript. Those extracts that are included in the subsequent text are highlighted in bold and italics and appear first in the list of each sub-group. The remainder are not cited in the text below. In line with the grounded theory model, the objective of presenting these data structure tables in this way is to show clearly that the selections in the text are representative of all the information relevant to the particular topic collected at interviews: in other words that the selections, presented in the text, are not random, biased or partial. The analysis emerging from this stage of the research is then presented in Table 6.12 at the end of this chapter and will be related to theory and developed into propositions in Chapter 8.

6.2. Relationships in the upstream international supply chain

6.2.1. Small worlds

Table 6.2. Data Structure: Small worlds		
Extract reference	1st order, interviewee terms	2nd order, researcher codes. Dimensions
<i>Firm A: p.1, l.23-32</i>	<i>Very close network around Rennes</i>	<i>Networks/Embeddedness. Density</i>
<i>Firm G: p.2, l.7-10</i>	<i>News travels fast</i>	<i>Networks/Embeddedness. Density</i>
Firm F: p.1, l.5-6	All the local suppliers are known	Networks/Embeddedness. Density
<i>Firm F: p.2, l.25-41</i>	<i>Not official, but informal networking</i>	<i>Networks. Existence</i>
Firm A: p.1, l.41-45	Grouping of purchasers in the region	Networks. Existence
Firm K: p.2, l.37-38	SMEs are a small world	Networks. Existence
Firm H: p.2, l.37-42	Firms belong to a purchasing group	Networks. Existence
<i>Firm H: p.3, l.11-14</i>	<i>Network relied on for general information</i>	<i>Networks. Function</i>
Firm A: p.2, l.30-31	Interesting to get feedback from others	Networks. Function
Firm J: p.2, l.23-p.3, l.8	Purchasing group acts as a complement	Networks. Function
Firm K: p.3, l.35-41	Purchasing group is an aid	Networks. Function
<i>Firm H: p.4, l.9-12</i>	<i>Never give more information than asked</i>	<i>Networks. Limits</i>
Firm A: p.2, l.4-7	Shouldn't give information to direct competitors	Networks. Limits
Firm F: p.2, l.20-22	No exchange of information with competitors	Networks. Limits
<i>Firm K: p.1, l.27-30</i>	<i>My existing contacts are enough</i>	<i>Networks. No need to go further</i>

Table 6.2 presents the extracts from the interviews that relate to small worlds and the use of networks as they affect supplier relationships. These were then organised into five dimensions: density, existence, function, limits and the lack of any need to search beyond the network.

The purchasing and procurement managers interviewed in this second stage of the research project all underlined the ‘small world’ nature of the agricultural machinery sector: the fact that everybody knows each other and that information circulates rapidly. One Purchasing Manager, in response to a question about how she decided whether a supplier was too risky, said:

“After all, news travels fast in this environment, because I know a lot of companies who use these suppliers. The rumours go fast. Take for example an Italian supplier that I got to know through one of our clients, Manitou. I know the buyer and I had the information very quickly.” (Purchasing Manager, Firm G)

However it should be noted that there is a limit to what information is shared and with whom. One purchasing manager said that he never gave out more information than he was asked:

“Let’s say that when we are with purchasers of different competitive companies, we are polite, we share the information that the other manager needs to know, but that we would never give more than he asked for. There is also a little bit of reserve.” (Purchasing Manager, Firm H)

This functioning of the network extends to information about foreign, as well as French, suppliers. The primary function of networks, therefore, is to provide reliable information. Another Purchasing Manager was asked whether he relied on his own knowledge for information about suppliers. He replied:

“No. Let’s say that I rely on my network to have some general information. But when we want to go into more detail, then I will get more involved.” (Purchasing Manager, Firm H)

Another Purchasing Manager, who, as is the case for most of the smaller SMEs in this study, has sole responsibility for both procurement and purchasing and has no assistant, replied to the same question by saying that he would rely on his own experience and existing contacts, without going further:

“Obviously I use my knowledge, because I have worked in several areas. Often that’s as far as I need to go. Internet serves me from time to time for specific things. But as a general rule my knowledge and my entire address book is enough for me now.” (Purchasing Manager, Firm K)

This small world in the agricultural machinery sector is particularly evident amongst Directors of firms. The exchanges are regular and cover a range of subjects, including relations with suppliers. Numerous extracts from the interviews could be cited as evidence. This is one of them:

“In the agricultural machinery sector around Rennes there is a really very close network. All the bosses in this sector know each other and exchange regularly about their working methods and their suppliers. I have been introduced to the buyers of other businesses in the area. This is often an opportunity to mention a common set of problems, namely who does a nearby manufacturer work with, is he satisfied or not with this supplier? There are a lot of exchanges between the different companies.”
(Purchasing Manager, Firm A)

The following extract illustrates that this informal horizontal networking in the sector also involves retired managers and extends to giving and receiving advice on global sourcing opportunities:

“...in my network, yes I know a lot of purchasing managers. [...] I recommend to other companies to go to such a place in China, to such a place in France. Yes it works a lot like that. [...] There is a whole network of directors of purchasing, retired managers who have a network of suppliers, a panel of suppliers. And it is always very good to take the words of these older people. [...] It is informal. Information is exchanged at a dinner party, a Trade Fair, during a meeting. This is not often at our firm. This is in a discussion, in friendship, as advice.” (Logistics Manager, Firm F)

The blurring of the lines between the professional and private world is perhaps symptomatic of the building of strong ties to be found in small worlds. Granovetter (1985) confirms that in the case of senior management this overlapping is a common feature of the business world:

“In a general way, there is evidence all around us of the extent to which business relations are mixed up with social ones. The trade associations deplored by Adam Smith remain of great importance. It is well known that many firms, small and large, are linked by interlocking directorates so that relationships among directors of firms are many and densely knit.” (Granovetter, 1985, p495)

The advantages and disadvantages of these strong ties, to be found with different partners in the agricultural machinery sector in north-west France, will be considered in more detail in Section 6.4.

6.2.2 The trend towards global sourcing

Table 6.3. Data Structure: the trend towards global sourcing		
Extract reference	1st order, interviewee terms	2nd order, researcher codes. Dimensions
<i>Firm H: p.6, l.26-31</i>	<i>Most problematic suppliers are importers themselves</i>	<i>Global sourcing. Negative. Global supply chain</i>
<i>Firm F: p.3, l.14-17</i>	<i>Language is a barrier</i>	<i>Global sourcing. Negative. Communication</i>
<i>Firm A: p.7, l.29-30</i>	<i>Influence of colleagues on language question</i>	<i>Global sourcing. Negative. Communication</i>
<i>Firm A: p.7, l.40 - p.8, l.5</i>	<i>China is not as interesting as it appears</i>	<i>Global sourcing. Negative. Quality, delay, currency</i>
<i>Firm G: p.4, l.29-38</i>	<i>It's a pity to deindustrialize Europe</i>	<i>Global sourcing. Negative. Politics</i>
<i>Firm A: p.7, l.10-26</i>	<i>Chinese want to be paid quickly before delivery</i>	<i>Global sourcing. Negative. Payment</i>
<i>Firm A: p.7, l.1-8</i>	<i>Good communication essential with foreign suppliers</i>	<i>Global sourcing. Negative. Communication</i>
<i>Firm H: p.1, l.31-43</i>	<i>A particular project planned in India</i>	<i>Global sourcing. Positive. Future plans</i>
<i>Firm H: p.2, l.3-4</i>	<i>50% cost savings possible</i>	<i>Global sourcing. Positive. Potential economies</i>
<i>Firm J: p.5, l.22-26</i>	<i>Quality French machining specialists</i>	<i>Global sourcing. Solutions. Local quality</i>
<i>Firm G: p.4, l.40-41</i>	<i>I do what I want</i>	<i>Global sourcing. Solutions. Purchaser autonomy</i>
<i>Firm F: p.1, l.36-39</i>	<i>Employ intermediaries locally to check suppliers</i>	<i>Global sourcing. Solutions. Controls</i>
<i>Firm K: p.4, l.25-27</i>	<i>Use an intermediary. No point in working directly with Asia</i>	<i>Global sourcing. Solutions. Controls</i>
<i>Firm J: p.5, l.17-20</i>	<i>French suppliers are within an hour by car</i>	<i>Global sourcing. Solutions. Proximity</i>

Table 6.3 presents the extracts from the interviews that relate to the trend away from local and towards global sourcing. The dimensions of the researcher codes are negative, positive and possible solutions. In each case different reasons for these views were given, as shown in the table above.

The purchasing manager of Firm H reported that his company was increasingly looking towards Asia, and in particular India, to source large volumes of small low value components. At the time of the interview this was still at the stage of a project: one that had been facilitated by the activities of a French supplier of Firm H that had set up factories in India. Again the network of French firms had enabled this exploration of the possibilities of sourcing globally:

“Today we do not buy in Asia. However we have plans to do so. We know that we will probably go to Asia or even to India. So, there is one project on a specific case. But for the moment it is at the status of a project. But we’re seriously thinking about it. We’re looking at these destinations because we will have very large volumes [...] Today we have French suppliers who already have plants in these countries. So we are using their existing networks to explore possibilities. Once we have found plants

which are suitable for these projects, then we will visit the sites.” (Purchasing Manager, Firm H)

And the reason for this planned change in sourcing is simple:

“On this type of product today we know that it is possible to achieve at least 50 to 55 % of savings compared to a European manufacturer.” (Purchasing Manager, Firm H)

However a focus on price to the exclusion of delivery lead time and quality can have negative effects from the customer’s perspectives, as any Purchasing Manager will confirm. Ironically this same firm reported that they, themselves, had the greatest problems with suppliers who, source abroad, resulting in delays in delivery. Later in the interview Firm H’s reply to a question about which supplier gives them the most problems and for what reasons, was as follows:

“I would say that it is with suppliers who import goods themselves via traders in France. Where we are most concerned is that some take the markets with very attractive prices, assure us that deadlines and service are well respected and sometimes we get surprises. So even if we have done a check, we cannot be 100% sure about a supplier.” (Purchasing Manager, Firm H)

So a company, which has had concrete, negative experience of suppliers which cannot assure delivery deadlines because of importing, is itself planning to go down the same road, attracted by cost savings. The risks of a globalised supply chain are outweighed by the lure of cheaper prices. A more balanced and sceptical approach to sourcing from China, in particular, and one which focused on the problem of misaligned objectives in the supply chain was presented by another Purchasing Manager:

“There was a time when everybody launched into this field of activity thinking that they were going to make money very quickly. Today we see all the people who offer benefits with China are people who think they can make us savings very quickly and therefore we will be interested straight away. But when you put in the dustbin 40 per cent of the parts that you have purchased and you are forced to buy almost six months of inventory because there are five months of procurement and that you do not control the currencies... When one puts everything end-to-end, China is not so interesting and often the intermediaries are people who only see the economic part and the day when

you put 40 per cent of what you bought in the dustbin, your intermediary is absent.”
(Purchasing Manager, Firm A)

In addition to practical objections to global sourcing on the grounds of delivery and quality, another Manager showed that political considerations could influence decision making or at least provide some resistance to the trend:

“I have already worked with Asia and I know the constraints, which, with our way of working, would hit us hard. For example, responsiveness, changes of schedules, delays, flexibility: simply the fact that our products could be blocked for 4 or 5 weeks in a container and that I cannot do anything about it. It’s not worth it. [...] And there is a second thing: it is not even ethical. I think it’s a pity to de-industrialise Europe. Even if I sense that this is a trend and we will end up doing the same. I do not want to support this trend.” (Purchasing Manager, Firm G)

Several companies expressed a clear preference for the known and local over the unknown and foreign. The argument was made that good quality suppliers are available in France, so why look elsewhere. Furthermore they are physically close, within an hour by car. When challenged that abroad he could find a cheaper price, one manager replied:

“You know there is the notion of quality. It is well known that in machining in France, there is a respect for the raw material. We respect the specifications. I will not say that there is not this same respect abroad, but it depends on the source of supply.”
(Purchasing Manager, Firm J)

The other barrier to global sourcing is linguistic and cultural. While one company reported that their Chinese suppliers visited their French factory along with other customers once a year, when asked to explain why the strong links that existed with French suppliers did not also exist with the Chinese, the reply was as follows:

“The language barrier. Not all of them speak English very well. It is not easy. With a French supplier we can say things as we would like. With a Chinese supplier there is a particular way to talk to them. But no, this is not at the same level.” (Logistics Manager, Firm F)

The problem of language does not just concern the Purchasing Manager in an SME, but also the technical department. Firm A pointed out that most purchases of electronic parts were made in the UK and that there were few French companies that fulfilled its research criteria. When asked whether in these circumstances he would prefer a French supplier over a foreign one, his response was:

“Not necessarily. But maybe I will be influenced by my colleagues in the technical department who will prefer to talk about technical matters with a French person.”
(Purchasing Manager, Firm A)

He went on to say that they often had contacts in suppliers who spoke very good French. On the question of global sourcing the interviewees displayed a variety of practices and reasons behind these practices: some were more open to the possibility than others. The experience of other companies, their own experience, language and political considerations affected decision making in this area. On this question it is appropriate to conclude with reference to the autonomy of the Purchasing Manager. When asked whether she was supported by the management in her ethical or political opposition to global sourcing, one Purchasing Manager said simply:

“I do what I want. We don’t even talk about it.” (Purchasing Manager, Firm G)

6.2.3. Change and professionalization

Table 6.4. Data Structure: Change and Professionalization		
Extract reference	1st order, interviewee terms	2nd order, researcher codes. Dimensions
<i>Firm A: p.6, l.1-31</i>	<i>Specialist parts require specialist suppliers</i>	<i>Move towards professionalization</i>
Firm A: p.5, l.3-17	Steel is not always necessary	New materials
Firm A: p.5, l.35-42	Agricultural machinery today is more complex	New materials
<i>Firm H: p.6, l.40-42</i>	<i>Could improve internal organization a lot</i>	<i>Internal reorganization</i>
Firm G: p.1, l.29-33	Recruitment and restructuring to meet demand	Internal reorganization
<i>Firm J: p.4, l.19-22</i>	<i>Stay faithful to existing suppliers</i>	<i>Maintain status quo</i>
Firm H: p.5, l.8-20	Changing suppliers can be complicated	Maintain status quo
Firm K: p.3, l.17-20	Out of question to change certain suppliers	Maintain status quo

Table 6.4 presents the extracts from the interviews that relate to the question of change and professionalization. Some managers saw the need to review and change internal ways of working and relationships with suppliers and others did not. A number of companies expressed the view that changing suppliers was not necessary and that usually a solution could be found to any difficulties that arose. They also cited the fact that there are simply not many potential suppliers available. The length of time of any inter-firm relationship was often cited as evidence of a partnership:

“We can change the suppliers. But we stay pretty faithful to our collaborators. We have had the same suppliers for 20 years. Therefore there is a real partnership. When there are problems we discuss them together. Then everyone tries to find the solutions to improve things.” (Purchasing Manager, Firm J)

On the question of change, two schools of thought emerge from the interviews: those who prefer to stay with what is familiar and reliable and those who are prepared to look elsewhere. The latter view is encapsulated by those who are prepared to look beyond the world of the agricultural machinery sector and these are often managers with experience outside this sector. One manager contrasted his approach to purchasing, where he was prepared to look outside the sector for suppliers with that of his Director, who had been in the agricultural machinery sector for many years. This citation is worth quoting in full because it highlights the difference between the professionalizing approach of some of the larger SMEs in the study and the traditional practices of the sector:

“The management sees it a little differently. This is the culture of the agricultural world. In the agricultural community there is a tendency to work with supplier colleagues, because it is estimated that, in order for the supplier to be good, he must know about agricultural machinery. I have a perception that is a little different. I think that if I buy a plastic part, I would prefer to have someone who is a specialist in plastic parts than someone who is specialised in agricultural machines. Management tended to seek specialized suppliers in agricultural machinery, because our needs were defined orally. Therefore when you define your needs orally, the supplier must understand very quickly the function of the part on the machine and choose the right material. I start from the premise that it is better that we take a little time before meeting the suppliers to define things clearly on the plan. To find someone who knows

nothing about agricultural machinery, but who can go from a specification which is fully thought out and will be able to choose the right technology and who will know what to do because he is an expert in the technology. When I arrived at [Firm A] if we wanted to explain to a supplier what we wanted, instead of presenting him with a plan, we showed him a brochure of [Firm A]'s machines. And I have plenty of suppliers who looked at me and said: it is interesting for me to know where you are going to use that on the machine, but it is not for me to calculate the mechanical constraints that the part will undergo. Do your calculations, tell me the important values that I must consider in the calculation and I will choose the right material. Therefore we reverse the roles, but from the time that [Firm A]'s expectations are clear in the specifications, I prefer to go and find someone who is really an expert in his field ... I know that in the agricultural community, the people who only know the agricultural community tend to only want to work with people who know the agricultural environment. But in the last two years the few new suppliers that I have brought in are more efficient, but often do not know the agricultural environment. But they are much more efficient because they are better organized, much more professional in their knowledge of their own business. These suppliers have good performance in quality or delivery time, even in more attractive prices than the historical suppliers.”
(Purchasing Manager, Firm A)

In this company working methods have moved towards a more professional and technically proficient approach of being able to specify requirements, so that the final assembler is able to tell the supplier what it wants rather than the supplier telling the final assembler what it thinks it needs. If we take the conceptualization of global value chain governance proposed by Gereffi et al. (2005), the evolution described by the Purchasing Manager above can be seen as a move from relational to modular value chains. In a relational value chain where product specifications are not codified, transactions become complex because they require the exchange of tacit knowledge, frequent face to face communication and hence a mutual dependence between supplier and lead firm. Changing partners may be costly and difficult. However in modular value chains product specifications are codified, complex information can be transmitted by computerized files and switching to other suppliers becomes a more feasible proposition. This change from relational to modular also enables a potential shift in

buyer-supplier power relationships, in this case to the advantage of the lead firm SME, potentially liberating it from a dependence on the supplier.

Change also relates to the internal organization. Two of the smaller sized SMEs in particular reported that their internal organization needed to be improved in order to meet delivery deadlines:

“Today to improve things I think that we need to look again at our internal organization. I think that there are some things that we do too slowly. The way in which we are structured could be considerably improved.” (Purchasing Manager, Firm H)

6.2.4 The problem with big suppliers

Table 6.5. Data Structure: the problem with big suppliers		
Extract reference	1st order, interviewee terms	2nd order, researcher codes. Dimensions
<i>Firm A: p.2, l.21-23</i>	<i>Don't give information to bigger competitors</i>	<i>Larger companies. Reticence</i>
<i>Firm A: p.3, l.11-32</i>	<i>Need to represent something in a negotiation</i>	<i>Big suppliers. Need for recognition</i>
Firm A: p.2, l.37-44	Need to be listened to by a supplier	Big suppliers. Need for recognition
<i>Firm F: p.4, l.28-37</i>	<i>Most problems with large foreign supplier/owner</i>	<i>Big suppliers. Risk of close relations</i>
Firm A: p.8, l.16-24	Risk of calling big suppliers partners	Big suppliers. Risk of close relations
<i>Firm K: p.2, l.45-p.3, l.6</i>	<i>Employees of big suppliers less committed</i>	<i>Big suppliers. Lack of commitment</i>

Table 6.5 indicates that SME managers were wary of big suppliers for a number of different reasons and that generally they represent a risk. In a professional manufacturing site operating on pull flow and holding minimum stocks, it is essential that suppliers respect the delivery deadlines set by the company. In the experience of some of these SMEs, getting big suppliers to meet delivery and quality requirements can be difficult, simply because they represent less in terms of turnover than a bigger customer. Having some weight in negotiations is key:

“I have expectations about the quality of the service; that is to say to have 100 per cent of the parts arriving in good quality here. Today we have five people who do the checking of parts in reception. Those are people, I will not say who serve no purpose, but logically we should not have five people in reception. I want the people who will

hear that I want 100% good parts. This is a requirement of [Firm A]. The second thing is that we work in pull flow, with minimum stocks. I need suppliers who will deliver in the agreed deadlines, subject to a certain range. That is more than 7 days before the date that is agreed or three days after. Beyond that we consider that the delivery of the supplier is not good. If I have those requirements and I come across a very big company which has its mode of operation and will not adapt to its customers and it is for the client to adapt to the operation of the big company, I am not interested. Because if we are out of stock and we are forced to change our mode of operation for a supplier [...] It is easier to be heard, to have a little bit of power over the person that is in front of you when you represent something to them. There are large companies who listen to their clients and things go very well. But in general, I feel that to have a little weight in the purchasing negotiations, you must represent something for the customer.” (Purchasing Manager, Firm A)

The same wariness of big suppliers was expressed by another SME, but for a different reason: their managers were seen as frequently changing roles and therefore not possessing the same level of commitment as those in SMEs. One manager when asked whether he had any large suppliers replied:

“Yes, unfortunately. If I can avoid them, I do so.

Q: You avoid the large enterprises. For what reason?

There’s a high turnover of people. That is to say that the person who is director of purchasing today will be the sales manager tomorrow or 3 or 4 years later. There is a compulsory turnover in large enterprises. The result is that people are not committed to the business nor to their job. I do not think that this is the same approach in an SME and having worked in both I have this vision of things.” (Purchasing Manager, Firm K)

Firm F had recently been taken over by a large Polish manufacturer of agricultural machinery, which was now one of its principal suppliers. When asked with which supplier he had encountered most problems, the Logistics Manager at Firm F replied:

“I would say the supplier in Poland. For what reason? This is not obvious because we are now their subsidiary. So we suffer. We try to guide them, but this is not necessarily

easy and they do not take it always well. And they want to do everything very, very fast but the level of quality still leaves something to be desired. Yes. The quality is not there yet. Therefore we have travelled there to improve their plants. We put things in place and we are going to put things in place. But the hard part is to make the changes last. When we are there, they will listen to us, and follow. But once we've left ... that is the big difficulty that we have today, the Polish supplier.” (Logistics Manager, Firm F)

This relates to resource-dependency theory (see sub-chapter 3.3.7) which argues that the extent to which a firm is dependent on the resources of another firm is critical for the success or failure of that firm (Pfeffer and Salancik, 1978). More generally a reticence towards larger companies was clearly shown when it came to a question about with whom a manager was prepared to share information:

“It is true that I am quite reluctant. We must differentiate ourselves from our competitors, who in any case are much bigger than we are. If we give them our good information...” (Purchasing Manager, Firm A)

Interestingly Halley et al (2006) found that the situation where a supplier was dominant in a buyer supplier relationship was the least likely of all possible power distribution relationships to enhance the competencies of either parties. In other words both suppliers and buyers have least to gain when suppliers are dominant. To demonstrate that this is not a sector-specific concern, the following quote from the purchasing manager of an SME in the aeronautical sector confirms the practice of avoiding big suppliers and preferring similar sized firms:

*“We have chosen suppliers of an equivalent size to ours or smaller for specific parts. In so doing we are neither drowned, nor unable to control anything. We work with suppliers that we know how to direct”*¹¹(La lettre des achats, 2016, p30).

¹¹ Translated from : « *Nous avons choisi des fournisseurs d'une taille équivalente à la nôtre ou plus petite pour des pièces spécifiques. Ainsi, nous ne sommes pas noyés, sans rien maîtriser. Nous travaillons avec des fournisseurs que nous savons piloter.* »

6.2.5 Make or buy

Table 6.6. Data Structure: Make or buy		
Extract reference	1st order, interviewee terms	2nd order, researcher codes. Dimensions
<i>Firm L: p.6, l.14-21</i>	<i>Subcontract for costs and not invest in assets</i>	<i>Buy. Avoid asset investment</i>
<i>Firm I: p.5, l.42-45</i>	<i>Growth leads to increased subcontracting</i>	<i>Buy. Avoid asset investment</i>
<i>Firm A: p.5, l.19-30</i>	<i>Subcontract specialist activities</i>	<i>Buy. Avoid asset investment</i>
Firm A: p.5, l.3-17	Machines are no longer an assembly of steel	Buy. Reasons of technology
Firm A: p.10, l.1-19	SME prospects for best suppliers	Buy. Proactive approach.
<i>Firm K: p.2, l. 4-25</i>	<i>Do as much as possible internally</i>	<i>Make. Develop internal capacity</i>
Firm L: p.6, l.29-31	Keep some in house for specific parts	Make. Keep some internal capacity

Table 6.6 shows that most companies confirmed the trend towards subcontracting some aspects of manufacturing, although the reasons given varied. The first set of reasons relates to the cost of purchasing and maintaining expensive and underused machinery and a preference for subcontracting to specialists:

“We sell two types of products which are very seasonal. When you have the machines internally you can have machines that are going to be very busy at certain periods and almost unused at others. This means that you have machines that can be very expensive at times. Therefore it is interesting to outsource to a subcontractor because that is the role of the supplier to ensure that his load is constant. Second thing: a supplier specializing in plastics processing, will keep abreast of new technologies and it will reinvest regularly in more efficient machinery which manufacture less expensively. Today it is more interesting to subcontract these kinds of things. It means also that we have fewer overheads to pay. In the design office we are not obliged to have a technician who will be expensive. Therefore [Firm A] has a tendency to become a specialist in final assembly.” (Purchasing Manager, Firm A)

Another company cited growth and the ability to respond to increased demand as the key factors behind the trend towards subcontracting:

“[...] there has been a significant growth and internally we have not wanted to invest in industrial equipment. Rather, we have tended to respond to demand by purchasing

more. Our growth of manufacturing has not been as important as our sales growth. As a result the part subcontracted has increased.” (Export Manager, Firm I)

A further reason relates to the cost of renewing existing old machinery given the small volumes produced and the low cost of subcontracting:

“Today more and more we tend to buy. There are several reasons. The first reason is because of the level of production costs and then secondly given the very small volume of manufacture that is done here, today we need to renew the fleet of machines. And in fact the cost would be too large when measured against the volume that is produced. And on some equipment, because all the equipment is assembled here, there is such a large gap between the hourly costs in France and the costs either in Poland or in China that on certain products there is now virtually no need to even ask the question.” (Export Manager, Firm L)

One company reported that the trend was in fact in the other direction. Here there was a tendency to internalize rather than externalize production for reasons of finance and control of the manufacturing/logistics process:

“In fact there are two schools in companies, and one is neither better nor less good than the other. The first school is that we subcontract and the second is to do a lot of things internally. The first has the advantage that it can be done by specialists, but we don’t have total control over everything that is being manufactured and the second actually we do not know everything, therefore there are things that we will certainly do less well or more expensively than others. We are in this second approach where we only subcontract in the event of a capacity problem.

Q: So if you are not a specialist in a field you would rather subcontract?

If we really are not a specialist or we do not know how to do it, we will subcontract. But if we do know, then we are going to do it. We do the maximum in-house [...] There are two reasons: master completely the manufacture of our machines. Unfortunately even in the agricultural community we are more and more subject to short deadlines and the short deadlines can only be met internally or perhaps externally with stock in hand or cash reserves, which are more or less difficult to manage.” (Purchasing Manager, Firm K)

These extracts demonstrate that not only are there different practices in relation to the question of make or buy amongst SMEs in the same sector of activity, but that there are also different reasons given for these practices. These differences are confirmed by Coe and Yeung (2015), who describe variability as one of the most critical attributes displayed by economic actors in modern global production networks, when strategies are formulated and implemented:

“The intentional acts of strategy formulation (planning) and implementation (practice) are highly dependent on the knowledge and judgement of these actors in their engagement with the value creation, retention, and capture processes made possible by emerging global production networks. Their strategic choices are likely to vary substantially across different networks, sectors and geographical contexts. No single strategy can adequately characterize all the actors in one production network, let alone an entire industry” (Coe and Yeung, 2015, p126).

6.3. Relationships in the downstream international supply chain

6.3.1. Finding information about foreign distributors

Extract reference	1st order, interviewee terms	2nd order, researcher codes. Dimensions
<i>Firm L: p.2, l.1-4</i>	<i>participate in Trade Fairs</i>	<i>Trade Fairs. Meet agents</i>
<i>Firm I: p.3, l.27-30</i>	<i>participate in Trade Fairs</i>	<i>Trade Fairs. Share with non-direct rivals</i>
Firm D: p.2, l.22-24	participate in Trade Fairs	Trade Fairs. Meet agents
Firm C: p.1, l.18	participate in Trade Fairs	Trade Fairs. Information source
<i>Firm D: p.3, l.15-20</i>	<i>Use of chambers of commerce and others</i>	<i>Role of institutions. Limited</i>
Firm L: p.2, l.4-9	Use of chambers of commerce and others	Role of institutions. Limited
<i>Firm C: p.1, l.24-26</i>	<i>Use of internet to check distributors</i>	<i>Use of Internet. Checking potential agents</i>
Firm C: p.1, l.18-21	Use of internet to find distributors	Use of Internet. Initial search
<i>Firm I: p.3, l.16-20</i>	<i>Use of other companies for information</i>	<i>Use of Network for information on agents. Important</i>
Firm L: p.2, l.9-13	Use of other companies for information	Use of Network for information on agents. Important
Firm C: p.1, l.34-37	Use of other companies for information	Use of Network for information on agents. Informative
<i>Firm C: p.1, 40-45</i>	<i>Use of other companies for information</i>	<i>Use of Network for information on agents. Limited importance</i>
Firm D: p.3, l.1-6	Use of other companies for information	Use of Network for information on agents. Limited importance

Table 6.7 shows the different sources of information about foreign distributors in the column ‘2nd order, researcher codes’ and the level of importance of each source, as cited by the interviewees. It is important to note that finding reliable foreign representation was ranked as the main concern of SMEs in the global marketplace, as revealed by research conducted by the OECD into almost 1000 European SMEs (OECD, 2008). Before a reliable partner can be found, information is required about possible future partners. Four possible sources of information about potential agents on the exporting side were listed by the SMEs, beginning with the importance of Trade Fairs:

“The first operation, when we explore a country for the first time, is to participate in a Trade Fair and have the first contacts with the customers who know a company which could install our equipment. Or have agents who come directly to our booths.”
(Export Manager, Firm L)

Trade Fairs are the place for exchanges of information with other companies, not only about the reliability of an agent in a foreign country, but also about the performance of other firms in the sector. The following subjects are discussed:

“The evolution of the market, mainly; the evolution of their turnover, things like that. Are the sales going well at this time?[...] It also allows us to position ourselves in relation to our competitors and peers.” (Export Manager, Firm I)

A second possibility was the services of regional and state structures such as the Chambers of Commerce, Ubifrance, Bretagne Commerce International (BCI), which support exporting firms in the search for distributors. Some firms indicated that the contacts offered had not borne fruit. For example the Export Manager of Firm D said that the help that BCI had provided in accessing the North African market had not been particularly useful, after all:

“There was some business which didn’t go very far. BCI just offered a connection, an approach to countries like Algeria or Tunisia. But it didn’t lead to any big deals. Also for Algeria, there is machinery which was ordered and has been stuck in our yard here for six months. Given the context over there, it is very complicated to be paid before the machinery is sent.” (Export Manager, Firm D)

A third option is to use the Internet for an initial search for dealers in particular, followed by a credit check on them:

“First of all I do a credit rating, credit check on them. I look at their viability as a dealer, and see what their borrowing capacity is. If the dealer has a good credit rating and a good borrowing capacity, normally it means they are a decent dealer.” (UK agent Firm C)

The final option is to gain information about foreign representatives from known French partners; in other words to use the existing network to obtain new information. The approach of using existing French contacts to find out about potential foreign distributors is explained by Firm I’s export manager:

“We are an SME. We are not a big market player. Therefore there is a need to understand how our partner SMEs or large groups work. Are they developing new countries? Is it going well with the importers? Therefore there are always courteous relations and exchanges with our colleagues.” (Export Manager, Firm I)

But Firm C downplayed the importance of the use of the network when asked how much of their decision making depends on information received from known contacts:

“Not a huge amount to be perfectly honest. If there is an area where I haven’t got a dealership, we are not a brand like John Deere or New Holland, and we can’t take on and sack dealers just like that. If we’ve got an area, a hole in the marketplace and there is a new dealer interested in setting up business with us and taking some stock in, if his credit rating is not fantastic, I’m not gonna discount him just because of that, because we don’t know the reason behind that.” (UK agent Firm C)

Some SMEs emphasized the importance of exchanging information with firms in the same sector, while others found it useful to be informed and up to date with what is happening in the market, but would not base their decision making on it. The manager in Firm D referred to this networking as *‘le relationnel’*, which the Director and salesmen engage in, but was not really all that important. For him, securing sales in new markets depended much more on the quality of the product and good communication with the agent.

6.3.2 Monitoring foreign distributors

Extract reference	1st order, interviewee terms	2nd order, researcher codes. Dimensions
<i>Firm L: p.3, l.20-29</i>	<i>Obtaining information about distributors</i>	<i>Monitoring agents. Triangulation</i>
Firm I: p.2, l.33-37	Obtaining information about distributors	Monitoring agents. Triangulation
<i>Firm I: p.2, l.45- p.3, l.5</i>	<i>Progression of sales and involvement</i>	<i>Evaluating agents. Sales and commitment</i>
<i>Firm I: p.5, l.18-25</i>	<i>Not in the game of comparing agents</i>	<i>Evaluating agents. Mutual aid</i>
<i>Firm C: p.4, l.24-30</i>	<i>Look after dealerships</i>	<i>Support to agents. Essential</i>
Firm D: p.5, l.12-15	Keep communicating with the customer	Communication with agent. Essential
<i>Firm L: p.4, l.30-37</i>	<i>Problem of exclusivity clause in contracts</i>	<i>Use of contracts. Counter-productive</i>

Table 6.8 presents the different ways in which the SMEs relate to and monitor foreign distributors, and the different expressed importance that a manager attaches to a given option. Most SMEs in the study employ one agent who is responsible for the sales distribution, technical support and aftersales service in a foreign country. However one SME active in the Chinese market divided these functions between two agents, effectively achieving triangulation to monitor the activities of an agent responsible for sales, through the hiring of an independent technician. The Export Manager at Firm L describes the role of this technician in China:

“For the moment this is interesting since we have feedback from the sites, a return of information that we did not have previously. And that we absolutely did not have with the distributors. As he is a Chinese person who speaks French, he is in direct contact with the customer and with the installer too. This gives us two sources on a case. It allows us to analyze the situation better. Let us imagine that there is a lack of equipment in a delivery. Our distributor for example could say that we have not delivered this equipment and in fact the customer can tell us that his building was open during the night and the equipment was stolen. And in the end we did deliver to the client. But it suits our distributor: to provide info like that that can be changed a little or that suits them.” (Export Manager, Firm L)

Triangulation can also be achieved by direct contact with the final customer, the farmers, at Trade Fairs. Firm I explains the purpose of this additional source of information:

“[...] we participate with our importers in the Trade Fairs in the country, which allows us to be [...] I think that the question is how to ensure that the importer does his job well in his country. We are on the ground in the country with importers and that allows us, despite everything, to have the views of the final customers on our machines via this presence at the Trade Fairs.” (Export Manager, Firm I)

In the interviews one SME manager reported that his firm did not use contracts or performance monitoring of the foreign distributors. The performance monitoring indicator that is used is simply the evolution of sales in a particular country. In fact this company, the most successful SME in terms of exports, strongly resisted the practice of evaluating distributors and comparing them one against another. Instead he saw the objective as helping the distributors to progress:

“Today we cannot consider that any importer has failed. After that, it is a question of value judgment. Actually if we have to judge the importers, we could classify them. But we do not really use this approach. We are not in a game of competition with our importers. We help each one to develop their network. We are not really in this evaluation logic, in fact. You are trying to ask me how they are evaluated. In fact we are rather in a logic of helping all of them to progress, rather than to compare one against the other.” (Export Manager, Firm I)

This rejection of the use of contracts or performance monitoring in their relations with foreign distributors can be understood with reference to the academic literature. Macaulay (1963) maintains that setting up and implementing contracts and then monitoring performance may hinder the development of constructive inter-firm relationships. Indeed the contracts-based solution or transactional approach may run counter to SME practice, often based on reciprocity (Poppo and Zenger, 2002).

The practice of support to dealers was confirmed by another SME, when asked what he does to nurture the relationship:

“You look after them. You look after any problems. If you walk away from problems, the dealers soon clam up and get very cold on you. I would say technical [problems],

after sales service. If you've got issues with customers and you look after them, that's the best way of, you know, keeping a dealership relationship alive.” (UK agent, Firm C)

However another firm reported that they did use distribution contracts with agents, but that these contracts, in the case of an unreliable partner and where for example they include exclusivity clauses, can cause more problems than they solve:

“There is a dealer with whom we have been working for three years in Thailand. Up to today he has not sold a single bolt. So I am going back next week. This year I am really at my limit with this distributor. And if we don't manage to do something this year we will be forced to find another distributor. Unfortunately these contracts are usually signed with an exclusivity clause for the country. Therefore it is essential to find the right distributor, and for us to be behind them, pushing them to perform.”
(Export Manager, Firm L)

Therefore there are two sides to the coin of contracts for SMEs in the international market: in theory they provide some legal protection, but in reality they may necessitate extra effort by the principal to ensure that the agent performs as required, since the unreliable agent cannot simply be dropped and replaced by another, where an exclusivity clause exists. Here, contracts cause more work for resource-constrained SMEs, rather than facilitating long distance relations. This supports Macaulay's finding that the use of contracts “may have [...] undesirable consequences” (Macaulay, 1963, p15).

6.3.3 Bottom of the pile and in a competitive market

Table 6.9. Data Structure: Bottom of the pile and in a competitive market		
Extract reference	1st order, interviewee terms	2nd order, researcher codes. Dimensions
<i>Firm C: p.2, l.31-32</i>	<i>Numbers of manufacturers increasing</i>	<i>Growing competition in specific markets</i>
Firm D: p.1, l.42-45	More difficult to find exclusive dealerships	Growing competition in specific markets
<i>Firm C: p.2, l.21-43</i>	<i>Low down on pecking order</i>	<i>Absence of power over agents</i>
Firm C: p.3, l.18-19	Threaten to take away franchise	Absence of power over agents
<i>Firm D: p.4, l.33-39</i>	<i>When dealership contacts SME, they make effort</i>	<i>Power absence mitigated by agent search</i>
<i>Firm C: p.5, l.14-18</i>	<i>John Deere bonuses to dealers</i>	<i>SMEs are low priority for agents</i>
<i>Firm D: p.6, l.10-11</i>	<i>Large dealership has positive influence</i>	<i>Impact of larger agent. Positive</i>
<i>Firm D: p.2,l.1-3</i>	<i>The final customer decides</i>	<i>Customer dominated market</i>

Table 6.9 presents the interviewee extracts in relation to power over agents, markets and competition. The table shows that a complex picture emerges such that there is no simple conclusion to be drawn, for example, that SMEs are always in a weak position with regard to foreign distributors. The two SME managers cited here took different approaches to the question based on their own experiences. Markets for specific products within the same sector are different. The trailer market, for example, is not the same as the seed drill machinery market, nor the tractor market. In the first the product is relatively cheap for agricultural machinery at 50,000€ per unit and there are plenty of competitors on the market:

“There used to be six trailer manufacturers in the UK, now there are 35. There used to be five manure spreader manufacturers. There are now 32.” (UK agent, Firm C)

The seed drill machinery market is more specialized and there are fewer players and the European tractor market is dominated by a handful of large companies: John Deere, Claas and Agco. The nature of the market has clear consequences for the relationships that SMEs have with dealerships, and in particular for the way power is unevenly distributed in the supply chain. For example, the UK agent of a French SME that manufactures top of the range trailers and manure spreaders was asked what action he could take to make sure that the agent was promoting his product. He responded as follows:

“I would say, selling what we’re selling we’re very low down on the pecking order. You’ve got, let’s say John Deere, so that’s tractors and combines. So that’s your premium brand and then you go to maybe sprayers and telehandlers, like Manitou and as you keep going down the tree, trailers come right down at the bottom. So if it was a new dealership, it wouldn’t be a big part of their business and we would not have any power over them. [...] You can’t really take any action to be honest. You can’t, because there is a lot of our product range that is just too expensive for the UK. He has to sell something to fill the gap in the market, so we have expensive trailers, he has to sell a cheaper trailer range as well, and you know a more competitive range to keep his business afloat and I can’t say stop. If I said I don’t want you to sell that, they’d say “fine”. We’re pond feed. We’re right down at the bottom of the scale.” (UK agent, Firm C)

This lack of weight over dealerships was confirmed by another SME in the same product range of trailers and muck spreaders, but was not seen as a problem. When asked whether there were cases of dealerships that did not prioritize their products, his response was:

“If they [the dealerships] have been used to selling tractors for 30 years, then selling muck spreaders is really a side-line and they’re not going to treat it as a priority. But in general when it’s the dealership that has come to us and that is the case for a lot of them, then they will do everything that is required to promote our equipment. They do local promotions in newspapers and videos. We can see this on their websites, the photos that are on it, clients invited to their showrooms. Things like that.” (Export Manager, Firm D)

Indeed this particular manager saw the fact of working with a large dealership in a foreign country that acted for a large brand name as a positive influence. He described his firm’s relations with such dealers in Eastern Europe as the most successful. When asked whether working with large dealers made life more difficult for his firm, he replied:

“No, it just demands more rigour on our part. If it’s a big organisation, we need to be more precise. No it doesn’t change the relations.” (Export Manager, Firm D)

Power imbalances in downstream supply chains seem to be mitigated when it is the agent who seeks out the principal rather than vice versa. In this circumstance there is a higher probability

that the agent will market the principal's product to the final customer. If on the other hand the principal, the SME in this research, actively tries to promote his product to a large agent, this may or may not work. A difference needs to be noted here between a passive ('let the agent come to you when demand exists') approach and an active, possibly fruitless, search for an agent. In any case, as one SME noted, it is the final customer, the farmer, who decides and the agent, in order to satisfy the farmer, may be obliged to switch manufacturer:

"It's the final customer who decides and sometimes rather than letting the customer take his business to other dealerships, it is possible that the dealer will order other brands to satisfy his customer." (Export Manager, Firm D)

Another alternative strategy to achieve weight with dealers could be to threaten to take away the franchise. Given the power relations in their particular market, Firm C dismissed this as unrealistic. Equally on incentives, it would be very difficult for a SME to match the end of year bonuses offered to dealerships by large tractor manufacturers, as described by this same manager:

"We are further down the pile and the reason that they [the dealerships] are under pressure [from the tractor manufacturer] is because if they meet their targets, they get a very large end of year bonus. For some dealerships it could be a million pounds. You tick all your boxes and you've got a million pounds. For the whole year, that is what they are focused on. It isn't trailers or muck spreaders, that's just a side-line. They don't want to waste too much time on that." (UK agent, Firm C)

Given the relatively low priority for the dealerships of the machinery produced by these SMEs, one strategy emerges from the research above all others, which appeared to be effective in ensuring that the agent works for the principal: that is the development of good relationships over a long period of time, as shown in the following section.

6.3.4. Relationships over the long term

Table 6.10. Data Structure: Relationships over the long term		
Extract reference	1st order, interviewee terms	2nd order, researcher codes. Dimensions
Firm D: p.5, l.38-41	30 years with Belgian dealer, 12 years average	Duration of links
Firm L: p.5, l.40-41	We've known them for a very long time	Duration of links
Firm C: p.4, l.17-21	UK presence 40 years	Duration of links
<i>Firm I: p.5, l.27-30</i>	<i>We're in it for the long term</i>	<i>Win win relationship sought</i>
<i>Firm I: p.4, l.9-14</i>	<i>Certainty for end customer</i>	<i>Customer guarantee of long service</i>
<i>Firm I: p.6, l.7-12</i>	<i>In it for the long term</i>	<i>Long term strategy</i>

Table 6.10 presents the interview extracts relating to the long term nature of relationships with foreign distributors. All respondents stressed the importance of this aspect: the managers stressed that they looked for and then sought to maintain long term relationships. Even in the case of failure by an agent, one SME declared that they would not change an agent:

“[...] in the end, the goal is to develop a relationship where everyone wins. We're in it for the long term. Even if at a given time one country has a failure, we try to understand what is happening with an importer and not to change the importer.”
(Export Manager, Firm I)

When this company refers to the long term, it should be noted that with one distributor in Italy the partnership has lasted 40 years. The export manager at Firm D mentioned that their relationship with the Belgium dealership had lasted thirty years and that the average duration for European partners was between twelve and fifteen years. The interviewee at Firm I pointed out that these long-standing relationships are not only beneficial to the two companies but also to the final customers, the farmers:

“The certainty for the end customer is that he will have a service that will last a long time. If he buys our machine he will have the certainty that even ten years later, he is going to find spare parts. He is going to be able to find advice on the use of this machine. If he goes to buy a machine now, six months later there will still be the network in the country to find parts or to find the service or the advice.” (Export Manager, Firm I)

This emphasis on the long term relates back to the importance of the correct choice of partners, which is described as the key to success in the export market for an SME. To conclude this section it is worth citing this extract, again from the most successful exporting SME, which highlights the importance of making the right selection of distributor from the beginning:

“I think that over the last 20 years the growth has been made on the export market. Somewhere it is a choice of the management; a decision of the company to grow on the export market. After that, I think that the success lies actually in the correct choice of importers. Since, as I said to you, we are in it for the long term. If we don’t make a mistake at the outset, we are winners. If we get it wrong at first, well we won’t be successful in that country.” (Export Manager, Firm I)

This then comes back to the results of the OECD (2008) survey which revealed that finding reliable foreign representation was ranked as the most important priority for SMEs. With the right contacts it is possible to be successful in the export market. Without it, success is unlikely.

6.4. Are strong ties a blessing or a curse?

Table 6.11. Data Structure: Are strong ties a blessing or a curse?		
Extract reference	Ist order, interviewee terms	2nd order, researcher codes. Dimensions
<i>Firm A: p.8, l.27-45</i>	<i>Treating business relations as friends is problematic</i>	<i>Strong ties. Negative. Complacency.</i>
<i>Firm L: p.2, l.34-p.3, l.7</i>	<i>Payment problem after 15 years of relations in China</i>	<i>Strong ties. Negative. Malfeasance risk</i>
Firm L: p.4, l.11-25	Spend a lot of time training and pushing distributors	Strong ties. Require SME investment
<i>Firm J: p.4, l.11-17</i>	<i>Long term links with foreign suppliers</i>	<i>Strong ties. Possible with foreign firms</i>
Firm G: p.2, l.40	Long term links with Italian suppliers	Strong ties. Possible with foreign firms
<i>Firm L: p.6, l.3-11</i>	<i>Our equipment complements their equipment</i>	<i>Strong ties. Product Complementarity</i>
<i>Firm H: p.4, l.17-42</i>	<i>Need supplier for long term for original parts</i>	<i>Strong ties. Positive. After sales service</i>
<i>Firm C: p.4, l.8-15</i>	<i>Sense of a family</i>	<i>Strong ties. Created by family atmosphere</i>
<i>Firm C: p.3, l.39-45</i>	<i>They are all part of groups</i>	<i>Strong ties. Cultural differences</i>
Firm F: p.3, l.38-p.4, l.4	Strong ties come from discussions of technical details	Strong ties. Positive. Origins
Firm I: p.3, l.43-p.4, l.2	Long term links of 40 years with Italian distributor	Strong ties. Positive. Duration
Firm H: p.5, l.1-13	Need strong ties with low and high value added suppliers	Strong ties. Positive. After sales service

Table 6.11 shows that there were both positive and negative views expressed about strong ties in the global supply chain. Granovetter (1973) downplays the importance of strong ties and instead argues that weak ties can be more useful, since they facilitate connections to other social networks. As noted in Chapter 2, Jack (2005), however, found that strong ties served the function of giving access to weaker ties. In other words new connections could be made through invoking strong ties.

In this research project the presence of strong ties was certainly reported by the interviewees as has been shown in the upstream supply chain in Section 6.2.1, even with partners in other countries. In reply to a question about whether it was possible to have strong ties with partners abroad one manager replied:

“I think that we have strong links with companies abroad. When one has worked for 15 or 20 years with the same company abroad the links are strong. [...] Because this is a sector of activity which is very precise and the suppliers that we have in certain sectors, for them this is their main activity. They are specialists. There are not an awful lot of these companies, you know. Some providers are really specialized in the sector, where we work.” (Purchasing Manager, Firm J)

Strong ties with partners in the supply chain were seen as essential by most companies, primarily because of the long lives of the machinery produced and the need for an after sales service. One manager considered that where weak ties existed this was because the company did not listen and was not prepared to accompany them:

“These are products which have a long life. Therefore we really need to have a partnership with our suppliers, so that they respond to our requests and our collaboration. But above all there is also a need for long term partnerships because these are machines which have a long life. Therefore there is a need for the supplier to be there also, if there is a failure in five or ten years to provide the original parts, which were mounted on the machinery. [...]

Q: And do you have weak ties with suppliers?

Some, yes. Very few. Because it is in an industrial world and there is a need to exchange and work. When you have weak ties with certain suppliers, they do not listen and precisely we are not accompanied.” (Purchasing Manager, Firm H)

Another advantage of strong ties is that they can help to create loyalty and this is seen as something which is more easily achievable for family SMEs than for larger companies. One manager described an open doors event held at the SME factory in Brittany where dealers were invited. When asked whether strong ties were important to his firm, he replied:

“Definitively we’ve just celebrated the 70 years in the factory. We had a party and open doors and we invited all our dealers over and managed to get 35 dealers over from the UK: and the sense of family and connections. All the dealers said to me they were so impressed with [Firm C] far more, far more than the tractor manufacturer, because you’ve got a sense of family and you’ve got the farmers there. Basically you’ve got the whole family and [the Director] is there with her children and you’ve got a sense of being part of a family and all the dealers said that, whereas you don’t with the faceless John Deeres.” (UK Agent, Firm C)

French companies’ propensity for networking and forming groups was underlined by the UK agent of firm C, who with an outsider’s perspective saw the French as: *“very loyal to their own”* and: *“like a big club”*. He contrasted this willingness to socialize and join groups to the situation in the UK:

“They don’t do it in the UK, but in France, they are all part of groups. They share an awful lot of information but they don’t share any information with the English. There is an AEA in the UK, agricultural engineers association, and it’s got such a small amount of people that have joined it. Unfortunately they’re not into clubs in the UK. [...] People don’t like sharing their information about their turnover and the amount of machines they’ve sold. Whereas in France 100% they do that, they share information. You’d be mad if you didn’t join these groups.” (UK Agent, Firm C)

In addition to vertical links with dealers and suppliers, horizontal links with similar complementary companies were also seen as essential either in terms of purchasing groups in the upstream or ad hoc partnerships in the global downstream. With reference to the latter one manager explained the nature and organization of this partnership:

“[...] we have worked closely with them for four years [...] because firstly our equipment fully complements the range of their equipment. Therefore in no way do we step on each other’s toes and also the way of working together is well defined. That is

to say that all the equipment is sold under the same name. The operation is well established. The approach is well respected and well carried out. We do the same Trade Fairs. We are on the same stands. And then we see each other very regularly either in France, or in China, or Russia. We have a very good relationship both for work and even as friends.” (Export Manager, Firm L)

However there is a downside to close inter-firm relations that have lasted for a long time, especially where they are with larger partners who may exploit their position in the knowledge that the SME has little option other than to accept what is offered under the conditions set by the larger partner:

“I consider that purchasing is actually about finding the best price, but it is also about anticipating potential problems. Therefore already if to get the best price you have someone who is more powerful than you and who knows that in any case you have no other choice, you are forced to accept him. Obviously he does not give you a good price. So we are with people who in some cases have lived very handsomely, let’s say. Therefore the management had the impression that by maintaining good relations, as it was with people, quotes friends, the friends would offer good prices. Since I have arrived I have shown that this was not the case. When one is with friends there is a tendency to fall asleep. We did not put people in competition with each other. People tended to rest on their laurels. We didn’t question the price offered. We did not ensure that it was always the market price and in addition to that when your friend gives you poor quality goods or delivers late, as it is a friend you do not dare to say that you are not content. So today my perception of things is that we must be secure, because there is evidence that those people who are regarded as partners are not such great partners after all. Some will not hesitate overnight to decide to stop working with us because we do not represent a great deal for them. And if that happens we will be in a real mess because we will not be able to manufacture the machine.” (Purchasing Manager, Firm A)

A further risk is that of malfeasance where a company will exploit the fact of a long-standing relationship to engage in malpractice. This apocryphal story was recounted about a distributor in China who had been working with the SME for fifteen years, demonstrating that duration is no guarantee of reliability:

“What happened is that there was a dealer who had worked with us for fifteen years. We worked with him, he made us a prepayment to register the order and subsequently he paid us the necessary percentages before departure for delivery. We had sold three million euros of goods to this dealer over fifteen years. And then on this last delivery what happened is that the distributor did the utmost to ensure that we delivered the equipment to him before the last payment percentage, knowing that the last payment percentage corresponded to 70 %. And in fact we delivered to him, confident in the knowledge that we had worked with him for fifteen years and that we had never had any concerns. And then there was a concern. That is to say that this distributor at the outset told us that the customer did not wish to pay until the equipment was installed. In response we sent a technician to install and upon arriving at the site discovered that, the building was not ready to accommodate the equipment. We have a Chinese technician there who went directly to see and discuss with the client to find out what was true and what was false. And in fact the customer told us and has also shown us the transfer orders, that this client had paid our distributor except that our vendor put the money somewhere else. Therefore we put pressure on the dealer and so did the customer: both of us. This was good since we had the pressure from both sides and finally the dealer paid up. But it took two and a half years.” (Export Manager, Firm L)

Strong ties exist in the small world of the agricultural machinery sector, where professionals see each other and exchange information regularly. They provide information, access to new markets and ensure customer service over the duration. However there are non-negligible risks associated with strong ties such as a potential for exploitation, complacency and malfeasance.

6.5. Conclusion and Summary Table

The interviews held in Stage 2 of the research build on the information gathering process begun in Stage 1 exploratory interviews. This chapter has begun the process of relating theory to the categories, rather than the firm based approach to the subject in the previous chapter. Extra information and explanations about the ways in which these SME manage their global supply chains was obtained and presented in a manner that grouped interview extracts into focused and researcher codes, in line with the grounded theory model. The tables at the beginning of each chapter subheading showed that in addition to the interview extracts used in

the thesis, other extracts could have been used, but for reasons of narrative coherence and the desire to remain concise, selections were made. The tables show that the selections made were representative of the views expressed by the SME managers.

This chapter was organised into three categories: upstream global supply chain relationships, downstream global supply chain relationships and the role of inter-firm networks and each of these categories contained focused codes that had emerged from the interview data. Within each focused code, the researcher codes and interviewer led codes were presented in the tables at the beginning of each sub section of the chapter. These categories can now be reorganised to facilitate analysis, to relate more closely to extant theory and to focus more on what is important in the findings. This revision of the categories was presented in Table 4.3 (see Chapter 4), which shows that the focused codes have been regrouped from a direction of flow logic to a conceptual model of governance, control and power. The reason for this is that these themes have now emerged as key to a response to the research question of how SMEs in this sector manage their global supply chains.

What needs to be retained from this chapter on the explanatory stage is that four main ideas have emerged as central to understanding how SMEs in the agricultural machinery sector manage their global supply chains, namely: governance, which requires the use of appropriate arrangements in each inter-firm relationship (the use or non-use of networks, the value of strong ties, the use of alliances and partnerships etc); control, which requires the mastery of inbound, internal and outbound flows and processes, as well as the make or buy decision; dealing with power imbalances in the supply chain, which requires responses that maximize opportunities, while minimizing the possibility of domination through an understanding of the scope for action in specific markets and finally recognition begins to emerge as the core category or the central notion of what the research is about. These revised categories and linked propositions will be explained and expanded on in Chapter 8.

Table 6.12 below presents in summary form the key findings of each of the focused codes. These findings allowed the author to prepare a presentation, which was subsequently used in Stage 3 of the research (see Appendix IV for the slides presented and Chapter 7 for the findings of Stage 3). In this final stage the author presented the research to different professionals with experience and knowledge in this area and invited their reaction to it. The following chapter presents the final stage of the interviews.

Table 6.12 Emerging themes from Explanatory research findings

Chapter sub-heading and focused codes	Key findings
6.2.1. Small worlds	News travels fast, exchanges are regular. Dense, informal networks are used for general information. Blurring of lines between professional and private realms.
6.2.2. The trend towards global sourcing	A variety of practices and reasons behind these practices: cost savings, delays and quality. The experience of other companies, own experience and political considerations affected decision making. Solutions seen in using intermediaries to control flows.
6.2.3. Change and professionalization	Two schools of thought: those who prefer to stay with familiar and reliable suppliers and those who seek to professionalize with new specialist suppliers outside the sector and by improving internal flows and methods..
6.2.4. The problem with big suppliers	Big suppliers lack commitment, have a high turnover of staff and do not listen to small customers – to be avoided. SMEs seek negotiating power and recognition. Risk of close relations with big suppliers. They are not partners.
6.2.5. Make or buy	Different practices and reasons given: internalize to keep and develop internal capacity; subcontract to respond rapidly to demand, to avoid investing in new machinery and mastering new technologies and to specialize in final assembly.
6.3.1. Finding information about foreign distributors	Four main sources are used: Trade Fairs, the Internet for initial checks, regional institutions which are little used and partner French companies, seen as important and informative.
6.3.2. Monitoring foreign distributors	Sales progression and involvement used to monitor performance. Little use of contracts which were shown to have possible negative consequences. Mutual aid, good communication and triangulation were seen as effective substitutes.

6.3.3. Bottom of the pile and in a competitive market	Markets are increasingly competitive. Some products are low priority with dealerships. Absence of power in relations. Larger dealerships require rigour, seen as positive. Difference between passive and active approach towards agents.
6.3.4. Relationships over the long term	SMEs have established long term relationships with dealerships. The objective is a win-win relationship with a guarantee of service for the final customer. Choice of the right distributor seen as the key to long term success in a foreign country.
6.4. Are strong ties a blessing or a curse?	Strong ties can be created by small scale family-type events, are possible with foreign firms, provide information, access to new markets and ensure customer service over the duration. But require resource investment by SMEs and risks include a potential for exploitation, complacency and malfeasance.

Chapter 7. Stage 3 interviews. Feedback and Discussion.

7.1. Introduction

The purpose of this third stage of the research programme was to present a summary of the findings to different groups of managers with experience in the area of SMEs and global supply chains, to obtain their reactions to the research and then to take the discussion around these subjects further. The objective is therefore a validation (or not) of the research by asking the key question: “does this coincide with your experience?” The seven participants in this final stage of the interview process were, in the order in which they were interviewed, as follows:

1. V.B. Export Manager, Firm L.
2. S.B. Export Director, Firm A.
3. J.B. Sales Manager, Firm A.
4. Isabelle Gimmig. Bretagne Supply Chain (BSC), Rennes Chambers of Commerce and Industry.
5. Elodie Le Provost. Bretagne Supply Chain (BSC), Rennes Chambers of Commerce and Industry.
6. Anne Leseur. Director, World Trade Centre (WTC), Rennes Chambers of Commerce and Industry.
7. Martine Huitema. Export Manager, Canon Bretagne (recently retired) and President of the Rennes ‘Cercle des Exportateurs’ (RCE) and specialist in Customs procedures.

These interviews comprised five sessions: participants 2 and 3 were interviewed together as were participants 4 and 5. The first three participants are representatives of companies which had already participated in earlier stages and had expressed an interest in seeing the findings of the research. The final four participants possess a wide range of skills, knowledge and experience in the following areas: the internationalization process, logistics and supply chain management, the role of regional institutions and voluntary groups, customs procedures and the business environment in Brittany.

Each of these sessions began with a presentation by the author of the slides provided in Appendix V. This presentation informed the interviewees about the context, methodology and findings of the first two stages of the research process. Following the presentation a wider discussion was engaged with several aims: commenting on and complementing the findings; relating the research findings to their own professional experience; updating and informing the author of developments and changes to supplement the research.

In this chapter after an initial discussion of the role of non-firm institutions, the analysis is organized into three broad themes which will then be developed in more detail in chapter 8 and related back to the emerging themes in Chapter 6. These themes are: embeddedness/networks, supply chains and power. As the research has progressed, these themes have increasingly appeared as central for the conceptualization of the position and practices of these SMEs in their global supply chains.

7.2. The role of non-firm institutions: do they help?

The Global Production Network (GPN) (see sub-chapter 3.3.8) approach emphasizes the role of regional institutions in supporting companies to develop their global activities. Thus GPNs can be seen as: “the globally organized nexus of interconnected functions and operations by firms and non-firm institutions through which goods and services are produced and distributed” (Coe et al., 2004, p471). The key term here is “non-firm institutions”, which includes such organizations as the regional Chambers of Commerce and the ‘Cercle des exportateurs’ represented here. In other words these regional and national institutions and voluntary bodies play a key role in terms of advice, support and concrete assistance to firms in the global marketplace. But to what extent and with what results? How do these and other statutory and non-statutory bodies actually help the SMEs in this research project at the international level?

The first point to note is that there are a wide range of organizations available to provide advice to firms in France. However as one article noted: “The problem with the assistance available to exporters in France is its dissipation and the resulting lack of coherence”¹² (Les Echos, 2016b). Attempts have been made to streamline services with the creation of Business France in 2015, which accompanied 9,800 companies in their export activity in 2015. This

¹² Author’s translation.

multiplicity of different organizations, both private and public was endorsed by one of these organizations:

“That’s the problem, the overlap. I think for SMEs it’s all one group and they don’t know who to contact for what” (E.L., BSC).

The attitude of the SMEs in this research was that these bodies could be useful when an international activity was being started, but that sometimes the advice was not useful. One SME referred to Bretagne Commerce International (BCI):

“The BCI can give us addresses of contacts. But they have never worked together [with these contacts]. While a partner, who is already doing business with a local company, can tell us straight away if he works well or to be careful about another one. There is some experience attached. The information is more complete” (V.B. Firm L).

The usefulness of advisory non-firm institutions in the initial stages and their good intentions was confirmed by Firm A:

“We can sense the motivation. After that to say that it is particularly effective, there’s a gap. There are some things that can be useful, in particular during the initial stages of discovering a new distant market. That can sometimes be useful” (S.B., Firm A).

In response Martine Huitema saw the problem as one of the lack of availability of SME managers:

“The problem is one of availability for them. There are lots of conferences organized by the BCI, by the WTC. [...] Often I chase people by phone to say OK you’re an SME but this could interest you” (M.H., RCE).

Anne Leseur confirmed that there are a lot of different organizations making their services available to companies:

“There’s a wide range of options. So I can understand that sometimes companies don’t know which door to knock on. But this gives them several possibilities” (A.L., WTC).

She went onto explain the roles of the different organizations:

“[The WTC] deals with the exchange of best practice between companies. We deal with a network of companies open to those that are working internationally and who want to exchange their savoir-faire and their practices [...The role of the BCI is to] go

and see the company, work with it on its strategy, its potential to develop in the export market, its internal organization [...] to bring them to Trade Fairs. [...] And they will go as far as to find agents and then help a company to create a subsidiary: the whole chain in fact right to the end” (A.L., WTC).

So the WTC works as a voluntary club of companies to exchange experience, while the BCI has a more proactive, targeted role along with considerable resources to assist companies in their international strategies. For Anne Leseur, the diversity of networks represents a richness of possibilities for the firms, rather than an obstacle. Furthermore she noted that the number of firms involved in international activity in Brittany is small. In fact only 2% of Breton firms export. Consequently the advisory organizations are cross-sectorial and generalist. Martine Huitema took up this theme and explained why Brittany was relatively unsuccessful in the export market:

“Brittany is not a major exporting region because our main activity is in the food sector and the food sector is not one which has a high value-added, like aeronautics.”(M.H., RCE).

This research shows that the SMEs that have succeeded internationally have done so in spite of, and not because of, non-firm institutions. None of the SMEs in this research reported that without the help of these organizations, internationalization would not have been possible. The assistance provided is at the initial stages and, as has been noted, is often dissipated and confusing from the perspective of the small firm.

This might seem curious in a society where, according to Fukuyama (1995, p122), there is: “a high degree of dependence of French private businesses on the protection and subsidy of the state”. However traditionally state intervention in France, *dirigisme*, has tended to be limited to firms that have reached a certain size and to those sectors deemed ‘strategic’. Sub-chapters 2.5 and 2.6 demonstrated that the agricultural machinery sector, perhaps mistakenly, has never been accorded such a privileged status in France. In this research, firms indicated that when it comes to internationalization, on the whole they have been left to themselves, or at best, each other.

7.3. You’re more fragile on your own

In relation to the international market the importance of using existing networks was underlined by several participants. For example:

“We can see that if you’re on your own, you’re more fragile. Those firms that understand that they can ally themselves with others and that they should not see them as competitors...in any case when you seek markets internationally, you need allies. I think that the Germans and Italians have this culture of going together in groups to Trade Fairs [...] There’s a kind of solidarity between them. I think we lack this” (A.L. WTC).

This absence of working together for the benefit of all, in contrast to Italian and German firms, is confirmed in a report on the agricultural machinery sector to the French Minister of Agriculture:

“[...] the sector finds it difficult to organize itself collectively to invest in foreign markets; in contrast to their Italian counterparts, who work in clusters and whose solidarity in the export market is their force, or to German companies, pulled by the strength and reactivity of large family firms”¹³ (IRSTEA, 2014, p37).

The following exchange highlights the point that working together between different firms on an informal basis is done, if at all, between a few companies of a similar size and status and not as an organized sector-based activity. And this is where the network seems to function most effectively:

T.C. So you rely on other companies for contacts?

S.B. Oh yes. Absolutely.

T.C. And there are several companies or just two or three?

S.B. I would say that there are three or four that we exchange regularly with: Firm I, Grégoire Besson, Firm O and then the group Exel, which makes agricultural spraying machines.

T.C. And so they give you possible contacts?

¹³ Translated from : « [...] la difficulté de la filière de s’organiser collectivement pour investir les marchés extérieurs, à l’inverse de leurs homologues italiens dont l’organisation en cluster et la solidarité à l’export font la force, ou aux entreprises allemandes, tirées par la puissance et le réactivité des grandes industries familiales. »

S.B. And we give them some too” (S.B., Firm A).

Firms present internationally can plug into existing networks in other geographical areas as well, as Anne Leseur described with an example of a French telecommunications SME active in the Middle East:

“He uses this Lebanese network and he is introduced everywhere in the Middle East. This allows him to use the right leads in the right places because one or two contacts have understood how he works. And they introduce him to the right people. And that is worth its weight in gold. He saves an enormous amount of time” (A.L. WTC).

Therefore the network is not necessarily limited to local contacts but can also exist at a more global level. This example is evidence of Granovetter’s thesis of the strength of weak ties (1973), since here these new connections are shown to be useful at bringing in reliable and potentially valuable contacts.

7.4. Controlling the supply chain

Martine Huitema, who at one point in her career dealt with international transport, confirmed that some small firms in Brittany are hesitant about exports and international markets:

“The people here are a little hesitant when it comes to exports. [...] They prefer to limit themselves to the national or European level, because it’s easier to keep an eye on the financial aspect of things. Because when you export, will you be paid?” (M.H., RCE).

Anne Leseur described the reaction within small firms to an international order as one of panic:

“When they receive an order on the Internet from the other side of the world, there’s panic. The person that received it, doesn’t understand it. Often the export salespeople say that they annoy people inside the company with this business. Because for a start everything is in English.” (A.L. WTC)

The question of fear was also raised in the interview with Bretagne Supply Chain. During a discussion about the use of ex-works, it was accepted that this Incoterm was used to avoid having to manage transport problems, but at the same time this resulted in the loss of control of their goods and the direct link with the customer. In reply to a question about why the companies use ex-works, if they don’t want to lose control, the response was:

“The fear of the international is greater than the potential benefits obtained by having this direct control” (E.L., BSC).

Based on her own experience of global supply chains, Elodie Le Provost questioned whether size was the real issue. She argued that in the countries where there was a larger volume of business and consequently FDI, the supply chain was more controlled because there were established good customers and good relationships. In those countries where exports had recently been started and ex works was used, there were often difficulties caused by a lack of control of the flows. Control of internal flows is equally important for SMEs in order to meet potential demand, as one SME manager reported:

“There is all the administrative part which we don’t do, like the transport or standards and regulations. It’s internally that you need an organization to be able to follow these things, because each link in the chain is important: from the preparation of quotations to delivery and the signing of contracts” (V.B., Firm L).

For SMEs, better managed supply chains can be achieved by increasing control both internally and externally.

7.5. Agency problem, markets and power

Just as the principal (in this case an SME) can be dependent on an agent to act on the SME’s behalf, so too a reliable agent in a foreign country is dependent on the principal for support and technical advice, as one SME explained:

“One of the first criticisms that they [the foreign distributors] make of us is presence. [...] They want us to train them in the equipment and to support them technically when they explain the products to customers. [...] I’m only talking about the three or four distributors who sell well, the others don’t ask: because for those, we are not a priority or the market isn’t there or they see that we are not present for them, so they don’t make an effort” (V.B., Firm L).

Sub-chapter 6.2.4 established that big suppliers pose a problem for SMEs in this sector and that there is a serious risk that SMEs are not listened to and not prioritized. The same observation can be made in relation to the downstream global supply chain:

“Just now we were talking about the size of partners. This is exactly the situation here. Our Thai partner is part of a very large group. So we don’t have nearly the same level of negotiating power as he does” (V.B., Firm L).

Here the problem of a small team is central, because in many of these SMEs there was only one person dealing with exports. Firm A reflected on how his company had started from the same position:

“We started like that years back. There were two people: one person who dealt with the administration and she was only half-time and another who worked half time on export. In fact we had one person, two part timers. That was at the end of the 1970’s” (S.B., Firm A).

The question of size and its effects on relationships with supply chain partners also entered into discussions with regional bodies. Anne Leseur from the WTC had an explanation as to why firms of similar sizes were more prone to work closely together than firms of different sizes, which can be encapsulated in the proverb ‘birds of a feather flock together’:

“They have a certain type of organization that they have put in place and today a company of one hundred people and another of four to five hundred people do not have the same internal organization. A medium sized firm is a little afraid of bigger firms because it doesn’t want to be bought out. And in relation to smaller ones it doesn’t think that it has the same problems as them. So it is more complicated to share with them” (A.L., WTC).

However both supply chain consultants at Bretagne Supply Chains cited examples of the disadvantage of size in relation to big suppliers and 3PLs in particular, where negotiating power is non-existent and small firms are not a priority. On the other hand a large firm may be less open to consulting other companies than smaller ones. In discussing the way in which small firms will count on other small firms for advice about which supplier or agent to use, Martine Huitema, ex Export Manager at Canon, a large multinational, pointed out:

“At Canon in Brittany there is a certain pretension. They would not go to other companies to ask who they work with. For bigger companies things work a little differently” (M.H., RCE).

The question of size differentials in the supply chain was approached from the perspective of the larger company by Martine Huitema, in the case of Canon's relationship with its smaller customers:

“These SMEs had different structures to ours. At Canon, for example, each person had a different well-defined task [...]. While at the SME in front of us, the person who dealt with quality also dealt with this and that as well. Sometimes when we did satisfaction surveys, they told us that the difficulty that they had with the size of our company was that they had to deal with five or six people for one of them at the SME” (M.H., RCE).

Indeed stories of imbalances in global supply chains abound. Martine Huitema recounted another in relation to a small subsidiary of Canon that manufactured hi-fi speakers:

“This subsidiary had suppliers in Asia to prepare a part of its products. What we noticed was that if certain suppliers suddenly had a priority order above all in Asia or China, they would put to one side the orders of the SME and deal with the order which would increase their turnover significantly. It is true to say that this is often a handicap for SMEs: that they are placed in direct competition with larger companies who have more orders and they pass into second place” (M.H., RCE).

Cox describes this phenomenon as: “horizontal competitive rivalries around particular supply chain resources” and suggests that: “there must, therefore, be objective conflicts of interest” (1999: 170, 172) both horizontally and vertically in supply chains, linked to asymmetries. The situation in Asia from the perspective of French SMEs might be improved if there were smaller sub-contractors available, but this was not the experience of this ex-Export Manager:

“We noticed that in China there are not many small subcontractors, because I used to go to China and when you arrive you notice that the companies are always enormous. And it's true that it's difficult to find small sub-contractors, like you can find here in France. Straight away the size of the suppliers is so large that you can find yourself drowned in the mass...” (M.H., RCE).

In contrast with the journalistic habit of seeing the agricultural machinery sector as one of continuous and significant technological evolution (Les Echos, 2016a), the export Director of

Firm A confirmed that it is difficult for a firm to make a significant technological advance to distinguish itself or to build an advantage:

“It takes a very long term presence to become a market maker. It is built over decades. At a minimum you need an ultra-innovative product: something remarkable that nobody else has. In that case you can have an advantage over others, but the pressure on the products is there. The companies that are still in the market make good products. There is little rupture in terms of technological revolution. Difference is obtained in the areas of commerce and communication” (S.B., Firm A).

Despite this absence of major technological rupture, these manufacturing SMEs need their products to be seen and promoted to the final customer. Markets where sales activity is substantial, but slowly declining or stagnating, can be a sign that the agent is eating into the margin. This might suggest to an SME that it is time to deal directly with the customer, increase the visibility of the brand and remove one intermediary from the supply chain. Subchapter 3.3.6 discusses Network theory, which sees a short characteristic path length (reducing the number of intermediaries) as an efficiency gain. In referring to their activity in the UK, Firm A reported:

“On this market there was clearly one intermediary too many, or our intermediary was taking too much, I don’t know. In any case this made us non-competitive on the market. That’s why we decided to take control to communicate directly with the farmers. This is also one of the problems when you have distributors: that the brand image is often in the background. And if you really want to be a market maker the image has to be high and to be a market maker with a distributor is almost impossible, from my point of view” (S.B., Firm A).

The visibility of the brand at the international level is also linked to the leadership of the SME. Senior management plays a key role, as one SME manager described:

“If the management is used to selling abroad or has worked with foreign suppliers, I think that they are more open to see what can be done in foreign countries. On the other hand if the management has not evolved, or doesn’t speak English, or has no visibility internationally and he thinks that local is certain, then he’s not going to look elsewhere” (V.B., Firm L).

The importance of the Director of a small firm in leading the international work was confirmed by Anne Leseur:

“It’s true that most of the time for exports to work well the Director has to be motivated. I know Firm O, for example, very well, because the Director was the president of the WTC and I could see that he was really convinced about the international. And he gives the means too. He does visits internationally: that pulls the whole team and convinces everyone in the firm” (A.L., WTC).

7.6. What this is not!

It should be noted that there were one or two criticisms or questions about the research which must be included. Martine Huitema questioned whether relationships upstream and downstream were similar and whether there needed to be more focus on the differences between country destinations:

“You know your subject well. You are in it. At the same time I know how things happen in practice, having experienced several times this type of situation and I wonder whether relationships with suppliers and with distributors are really the same. For me it can be very different depending on the country – in terms of the legal obligations in a country or the way in which you are going to set up in a country” (M.H., RCE).

In response the author said:

“Of course. But I think that the key question facing each company is how am I going to find someone in this country who is reliable, who will either deliver the right quality at the right time or on the other hand will promote my product: the question of reliability is, I think, the same” (T.C).

Further support for considering both upstream and downstream aspects of the supply chain at the same time comes from the academic literature and sees the validity of this approach from the perspective of strategy:

“[...] an important goal of this paper was simultaneously considering upstream supplier and downstream customer integration during the analysis. In so doing, the paper develops a new way of characterizing the direction and degree of supply chain

integration, and thus of defining different supply chain strategies” (Frohlich and Westbrook, 2001, p186).

The importance of European standards, regulations and certifications was also cited by Martine Huitema as being of great importance in global relationships in particular with suppliers:

“In France we have important European standards in relation to agricultural machinery and safety. The machines have to arrive with a CE certification. It is sometimes difficult to get Asian suppliers to understand that machines must meet the standards that we have in the European Union. And if we don’t have that European standard we cannot sell on the European market [...] so that in the case of an accident you are covered by your insurance” (M.H., RCE).

Therefore we can establish that this is not a piece of research about the role of standards and certifications and does not distinguish between the regulatory frameworks or cultural codes of different destination countries. Neither does it maintain a clear distinction throughout the research between upstream buyer-supplier relationships and downstream manufacturer-distributor relationships, although such a functional distinction does indeed exist both at a basic level (in the first you’re a buyer and in the second you’re a seller) and at the level of technical knowledge required. However taking a holistic view, this research enables common structural issues of supply chain strategy, governance and power asymmetries to be considered from a whole firm perspective and hence such an approach is justified.

7.7. Conclusion

Table 7.1 presents a summary of this stage of the research, which involved firm and non-firm professionals in feedback and discussion sessions. The purpose of these sessions was to discuss openly with participants the findings of the research and to gather their responses and added input to refine the analysis. This proved to be an invaluable method to terminate the research and to obtain confirmation from professionals that the findings up to that point were plausible. The role of this final stage of the research, as outlined in this chapter, has been to provide confirmability: “i.e. the findings represent the results of the inquiry and not the researcher’s biases” (Halldorsson and Aastrup, 2003, p.328). This discussion about research validity is developed in Chapter 8.7.

Table 7.1 Summary of findings from Feedback and Discussion stage

Chapter 7 sub-headings	Key findings
7.2. The role of non-firm institutions: do they help?	Multiplicity of different non-firm institutions. Who to contact for what? Institutions useful initially. Lack of ‘strategic position’ of this sector from the state’s perspective.
7.3. You’re more fragile on your own	Informal collaboration between different firms of a similar size and status and not as an organized sector-based activity. Suggestion of lack of solidarity amongst French firms.
7.4. Controlling the supply chain	Control of global supply chain given up through fear of the international and use of ex-works. Control of internal flows also seen as essential, though in some cases not achieved.
7.5. Agency problem, markets and power	Agent requires presence from principal for support and guidance. Size asymmetries affect both upstream and downstream relationships impacting negotiating power. ‘Birds of a feather flock together’ – similar sized firms tend to support each other. SMEs, as customers, not prioritized by large firms. Takes a long time to become market makers. Some SMEs see FDI in particular countries as solution to visibility by final customer. Role of Director in international work is essential.

In conclusion this chapter has shown that the wide range of non-firm institutions available to help SMEs internationalize may be useful at the initial stages, but will probably not be relied on as heavily as other firms that have concrete experience of finding new suppliers or distributors in a given country. Secondly and continuing this point, embeddedness in local networks, even in different territorial locations, is invaluable in the search for reliable contacts. Fear of the international was shown to create a risk of dependence on agents and a loss of supply chain control. This was only mitigated by an acknowledgement of a mutual

dependence and an engagement of resources. The problem of size asymmetries and the conflicts of interest between supply chain partners raised questions about how the advantages that large firms possess are exercised. Finally leading SMEs in this research have recognized that the Director plays a key role in raising the profile of the firm internationally and motivating the staff. In some product markets, better supply chain visibility can be achieved, where volumes justify investment, by removal of the intermediary to communicate directly with the final customer, in this case the farmer. The following chapter of this thesis draws together the findings from all the interview stages and develops a theoretical analysis based on these findings.

Chapter 8 Discussion and Propositions

8.1. Introduction

Chapters 5, 6 and 7 have presented and discussed the research findings from the three interview stages. This chapter will analyse the data in detail, conceptualize, make a number of propositions, examine the research validity and present what is termed in grounded theory, the core category. The first section shows the data structure of the thesis and the link between the different research stages, extant theory and propositions. These linkages are presented diagrammatically in Fig. 8.1.

Secondly all of the key data findings in the different categories are brought together in Tables 8.1, 8.2 and 8.3. These tables organize the findings of the three research stages into three categories: firstly, governance, embeddedness and networks; secondly, control and management of supply chains; and finally, power, resources, the agency problem and markets. Linked to these categories, six propositions that have emerged from the research are then presented and discussed in detail.

Thirdly, section 8.4 discusses the core category of the research, which condenses all the findings of the research into the single concept of recognition. Definitions of this concept, borrowed from political theory are outlined, along with a demonstration of its emergence from the research and how it can potentially enrich thinking on supply chains and SMEs. Section 8.5 then makes wider links with political theory to develop thinking on the role of power in SME global supply chains and section 8.6 revisits the importance of studying the small firm. Section 8.7 discusses the research validity and section 8.8 considers the relevance of the theoretical framework, developed in Chapter 3, given the research findings.

8.2. Data structure

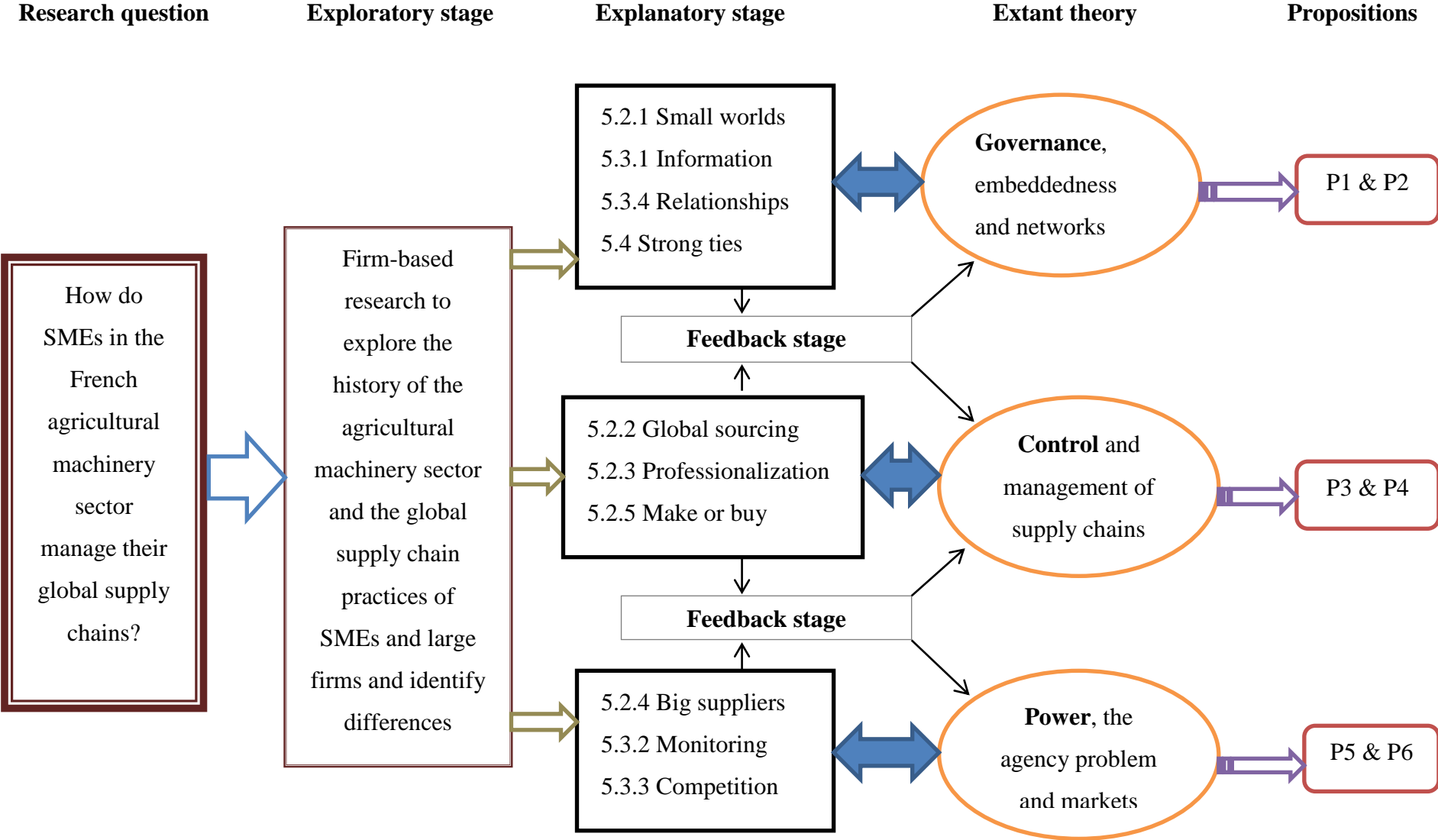
Fig. 8.1 is the key diagram for understanding the structure of the thesis and the connection between the data and the development of thinking about SMEs and global supply chains. The objective is to present visually the different research stages and the evolution towards original and useful propositions (Corley and Gioia, 2011). Figure 8.1 demonstrates that theory has both informed the research process in the stage 2 interviews and that as a result of those interviews, theory has been referred to in order to develop the propositions.

Figure 8.1 also reorganizes the ten focused codes from the upstream, downstream and network (UDN) model, as seen in chapter 6 into what can be termed a governance, control and power (GCP) model. The GCP model (see Fig. 8.2 in section 8.4 of this chapter) links the research findings more closely to theory and brings out the key questions for SMEs in managing their global supply chains that have emerged from the research: are the chosen governance arrangements (market, network or hierarchy) appropriate; is control exercised over physical and information flows and are power imbalances in inter-firm relationships effectively negotiated?

Whereas the UDN model is based on the Janus faced idea of the organisation (Cox et al, 2002), where a company's external relations are organized into upstream, downstream and networking directions, the GCP model conceptualizes the global supply challenges that SMEs face into managing relationships and managing material flows. It concentrates on the inter-related elements of governance, control and power. Each of these elements poses different challenges to an organization. Effective governance requires the use of appropriate arrangements in each inter-firm relationship (contractual/non-contractual, performance monitoring/or none etc); control requires the mastery of inbound, internal and outbound flows and processes to be able to respond to demand; dealing with power imbalances in the supply chain requires responses that maximize opportunities, while minimizing the possibility of domination through an understanding of the scope for action in specific markets. Control refers to physical and information flows, while power and governance refer to relationships in the supply chain.

From an SME perspective these concepts are mutually dependent: a focus on one or two to the exclusion of the other(s) is counterproductive. Equally, from a research perspective, an exclusive focus on managing the information and physical flows, for example, neglects the importance of relationships.

Figure 8.1 Data Structure: Link between research findings, theory and propositions: the GCP model



8.3. Six propositions relating to SMEs and global supply chains

Following Figure 8.1, Tables 8.1, 8.2 and 8.3 present the key findings taken from the previous chapters and below each table, propositions are made. Two questions arise about the propositions. Firstly how were these propositions arrived at? Secondly why are there six propositions and not eight, for example? To answer these questions it should be noted, that the function of propositions, is as much to show a way forward for future researchers, as it is to show the link between raw data and emergent theory:

“Propositions certainly make our work more accessible and useful to other scholars. First, and most obviously, propositions suggest a roadmap for future qualitative researchers to follow. [...] Propositions demonstrate to quantitatively oriented researchers that qualitative findings can offer good guidance in developing emergent concepts into measureable constructs” (Gioia et al., 2012, p.25).

In making the propositions, the objective is to develop and advance thinking about the particular circumstances of manufacturing SMEs and global supply chains, based on the research findings and not to repeat existing knowledge. Additionally propositions should not be trite or trivial, but should present new ideas based on the data. Therefore the objective of propositions made here is to take supply chain thinking forward, based on findings that have emerged from the research. It was possible to develop six (not more or less) propositions which fulfilled these criteria.

Proposition 1 (‘Levels of embeddedness and forms of SME supply chain governance are linked to perceptions of the environment’) is based on the author’s observation that views expressed in the interviews about the environment in which a firm operates could be linked to the eventual preferred governance structure, as is explained in more detail in section 8.3.1. Proposition 2 (‘The global possibilities that small worlds offer are constrained by culture’) brings together a number of strands from different chapters in the thesis, both in terms of context (chapter 2), theory (chapter 3) and the findings. Here there was found to be a double edged sword, in that one of the advantages of embeddedness and small worlds is that they can offer new contacts, but that at the same time this closed culture can act against the active and

enthusiastic pursuit of these opportunities. This argument is developed in more detail in section 8.3.2.

Proposition 3 ('Supply Chain Management can learn from SME practices') relates back to sub-chapters 3.3 and 3.3.1. The proposition links this theorizing about SCM and SMEs to the evidence from the interviews and argues that, for SMEs, SCM is as much about relationships and managing power asymmetries, as it is about using the technical tools of flow optimization. The aim here is to place an SME perspective at the heart of discussions about what is supply chain management. Proposition 4 ('The trend towards global sourcing, the need to avoid expensive asset investment and the diversity of materials now used in machinery all push SME final assemblers to buy rather than make') brings together the findings on global sourcing (sub-chapter 6.2.2) and the make or buy decision (sub-chapter 6.2.5) and proposes that the trend towards subcontracting and global sourcing for SMEs is likely to continue and that the question of critical assets remains pertinent.

Proposition 5 ('In SME global supply chains, mutuality, engagement for the duration, presence on the ground and the correct choice of partner are effective solutions to the agency problem') developed out of the observation that the standard textbook solutions to the principal agent problem were not supported by the research findings. SMEs preferred to build non-contractual relationships based on equality and an absence of systematic monitoring over a long period of time at the global level in order to ensure good service. Proposition 6 ('Power asymmetries in SME global supply chains are exacerbated by more competitive markets') is based on the finding that the more competitive a product market (e.g. trailers) the more power asymmetries in the supply chain can adversely affect an SME. The reverse would also appear to be the case, namely where a product market is highly specialized (e.g. seed drill machines) and there are only a handful of competitors, the less significant are power asymmetries in the supply chain.

Table 8.1 Research findings and emerging themes related to theory: Governance, embeddedness and networks

Chapter 5: exploratory research findings	Chapter 6: findings and emerging themes	Chapter 7: supplementary findings
	<p>6.2.1. Small worlds. News travels fast, exchanges are regular. Dense, informal networks are used for general information. Blurring of lines between professional and private realms.</p>	
<p>Absence of use of regional and state institutions for aid in exporting.</p>	<p>6.3.1. Finding information about foreign distributors. Four main sources are used: Trade Fairs, the Internet for initial checks, regional institutions which are little used and partner French companies, seen as important and informative.</p>	<p>Multiplicity of different non-firm institutions. Who to contact for what? Institutions useful initially. Lack of ‘strategic position’ of this sector from state’s perspective. Brittany relatively unsuccessful in export activity.</p>
	<p>6.3.4. Relationships over the long term. SMEs have established long term relationships with dealerships. The objective is a win-win relationship with a guarantee of service for the final customer. Choice of the right distributor seen as the key to long term success in a foreign country.</p>	

	<p>6.4. Are strong ties a blessing or a curse? Strong ties can be created by small scale family-type events, are possible with foreign firms, provide information, access to new markets and ensure customer service over the duration. But require resource investment by SMEs and risks include a potential for exploitation, complacency and malfeasance. Cultural differences in networking.</p>	<p>Informal collaboration between different firms of a similar size and status and not as an organized sector-based activity. Suggestion of lack of solidarity amongst French firms, unlike Italian ones, for example. .</p>
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Proposition 1: Levels of embeddedness and forms of SME supply chain governance are linked to perceptions of the environment

Proposition 2: The global possibilities that small worlds offer are constrained by culture.

Table 8.2 Relating findings and emerging themes to theory: Control and management of supply chains

Chapter 5: exploratory research findings	Chapter 6: findings and emerging themes	Chapter 7: supplementary findings
<p>No separation between purchasing and procurement in smaller SMEs. Rare example of offshoring a welding activity to China. Some global sourcing of low value added, high volume standard parts, but incidents of quality failures. High value-added specialist parts sourced in western Europe.</p>	<p>6.2.2. The trend towards global sourcing. A variety of practices and reasons behind these practices: cost savings, delays and quality. The experience of other companies, own experience and political considerations affected decision making. Solutions seen in using European intermediaries to control flows or continuing to favour local suppliers.</p>	<p>Control of global supply chain given up through fear of the international and use of ex-works. Control of internal flows also seen as essential, though in some cases not achieved.</p>
<p>Larger SMEs have greater range of product options adding complexity to production. Larger SMEs have invested in new purpose-built sites outside towns and modern industrial and logistic methods. Smaller SMEs practice craft based industrial systems.</p>	<p>6.2.3. Change and professionalization. Two schools of thought: those who prefer to stay with familiar and reliable suppliers and those who seek to professionalize with new specialist suppliers outside the sector and by improving internal flows and methods.</p>	

Market positioning as final assemblers and a tendency to subcontract, though some variations.	6.2.5. Make or buy. Different practices and reasons given: internalize to keep and develop internal capacity; subcontract to respond rapidly to demand, to avoid investing in new machinery and mastering new technologies and to specialize in final assembly.	
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Proposition 3: Supply Chain Management can learn from SME practices.

Proposition 4: The trend towards global sourcing, the need to avoid expensive asset investment and the diversity of materials now used in machinery all push SME final assemblers to buy rather than make.

Table 8.3 Relating findings and emerging themes to theory: Power, the agency problem and markets

Chapter 5: exploratory research findings	Chapter 6: findings and emerging themes	Chapter 7: supplementary findings
	<p>6.2.4. The problem with big suppliers. Big suppliers lack commitment, have a high turnover of staff and do not listen to small customers – to be avoided. SMEs seek negotiating power and recognition. Risk of close relations with big suppliers. Not seen as partners.</p>	<p>Agent requires presence from principal for support and guidance. Size asymmetries affect both upstream and downstream relationships impacting negotiating power. ‘Birds of a feather flock together’ – similar sized firms tend to support each other. SMEs, as customers, not</p>
<p>Use of import companies, but no evidence of setting up foreign distribution subsidiaries. Some evidence of country specific partnerships with larger companies.</p>	<p>6.3.2. Monitoring foreign distributors. Sales progression and involvement used to monitor performance. Little use of contracts which were shown to have possible negative consequences. Mutual aid, good communication and triangulation were seen as effective substitutes.</p>	<p>prioritized by large firms. Takes a long time to become market makers. Some SMEs see FDI in particular countries as solution to visibility by final customer. Role of Director in international work is essential.</p>

Evidence of both active and passive export strategies.	<p>6.3.3. Bottom of the pile and in a competitive market.</p> <p>Markets are increasingly competitive. Some products are low priority with dealerships. Absence of power in relations. Larger dealerships require rigour, seen as positive. Difference between passive and active approach towards agents.</p>	
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Proposition 5: In SME global supply chains, mutuality, engagement for the duration, presence on the ground and the correct choice of partner are effective solutions to the agency problem.

Proposition 6: Power asymmetries in SME global supply chains are exacerbated in more competitive markets.

8.3.1. Proposition 1: Levels of embeddedness and forms of SME supply chain governance are linked to perceptions of the environment

Firms can be either over or under-embedded in local economies. For SMEs a flexible balance is necessary between over and under-embeddedness depending on the economic circumstances, as Granovetter outlines:

“embedded ties offer considerable advantages in stable situations, but in periods of change, lock firms into relationships and may inhibit adaptation. Arms' length ties lack the benefits of trusting interaction but permit more flexibility when change is needed. Thus, some optimal balance exists among types of ties, and firms achieving that balance are more likely to survive over varying market conditions.” (2005, p.43-44)

The level of embeddedness has implications for global relationships and asymmetries that evolve over time. Just as some firms interact fully in their local environments, others remain suspicious of both local rivals and potential allies and do not use these resources to explore beyond their borders. In the exploratory research two opposed perceptions of the environment were identified, that are encapsulated in these two extracts: *“You need to know that in the agricultural machinery sector there is not a lot of agreement. It's everyman for himself”* (Director, Firm B, sub-chapter 5.3.2) and: *“The majority of suppliers or subcontractors are within 50 kilometres of the factory. These relationships are very important in terms of reactivity. There are emotional ties also which need to be taken into account”* (Purchasing Manager, Firm E, sub-chapter 5.3.5).

The first extract illustrates an absence of reliance on local connections and a vision of the nature of inter-firm relationships as essentially competitive. The second highlights the role that social relations play in dyadic inter-firm relations, especially at senior levels of the hierarchy (Granovetter, 1985). Chapter 6 presents considerable evidence of this overspill of economic relations into social relations in this research through links between managers and directors of different companies: in other words economic relations are embedded in social relations.

Interestingly, it can be deduced in the case of Firm B that its relative lack of embeddedness and trust in local relations is connected with this firm's decision to pursue a high risk strategy of FDI in Poland and China. Firm B's Director described how he had spent considerable time

and effort searching for a potential subsidiary in China (sub-chapter 5.3.2). This confirms the finding of Luvison and Bendixen (2011) that while outsourcing may improve organisational expediency, managerial complexity will be increased (sub-chapter 2.3.2). The UK agent of firm C described how there was ‘no love lost’ between firm B and firm C and how Firm B has pursued a high risk strategy:

“We had an agreement: ‘you make tankers, we make spreaders’. Now they make spreaders, so they’re competing with us [...] They are not really honourable [...] They have also bought a trailer manufacturer so they are emulating [Firm C], really. [...] They’ve been bankrupt once before. It could happen again. They were really stretching themselves.” (UK agent, Firm C, p.4, 1.33-42)

Perceptions of the environment play a key role for SMEs when it comes to decision making about forms of entry into global markets and expansion of their supply chains beyond borders: seeing the local environment as hostile and competitive is likely to lead to attempts to maintain independent action and exercise control over a globally dispersed supply chain. It should also be noted that perceptions are such that:

“[...] two firms at the same stage of export development will not perceive necessarily and/or will not experience the same impact from obstacles, nor will they react in the same way. Moreover, the same firm may perceive the same barrier differently at different points in time and in relation to different export destinations.” (Leonidou, 2004, p.284)

While the variable nature of perceptions must be taken into account, this research suggests that if SMEs perceive the environment as competitive and potential allies are eschewed, then hierarchical forms of governance rather than network forms of governance are preferred. Alternatively firms that see the environment as supportive and comprising opportunities for co-operation will interact frequently with similar local firms, readily exchange information and will use informal network forms of supply chain governance (Stock et al., 2000; Jones et al., 1997). An example of the latter is in sub-chapter 7.3, when Firm A describes how he is in regular contact with four similar sized companies to exchange information.

In Table 8.4 SMEs that participated in this research are divided into four distinct groups to show the different supply chain governance strategies. These four groups of SMEs are:

internationalists, which have successfully internationalized their activities sometimes over a period of several decades; domestics, which focus primarily on the national market and have either abandoned internationalization or approach it with hesitation; alliances, which have entered formal partnerships with other firms for strategic reasons; independent, which has chosen to plough its own furrow!

<p>Internationalists Firms A, C, D, H & I Seed drill machines, muck spreaders, trailers</p>	<p>Informal networks. Director often active internationally. Companies assist each other in global markets. Networking with similar sized complementary SMEs. Regular exchange of information between companies on an informal basis. Some collaboration with larger companies in specific markets that pose logistic difficulties but generally wary of too close working with them.</p>
<p>Domestics Firms G, J & K Trailers, Excavators, Soil preparation</p>	<p>Informal networks. Low risk passive strategy with agents. Use of ex-works, minimum resource engagement and lack of prospection. Preference for cultural proximity. Some evidence of working in partnership with larger companies at domestic level. But a general wariness of partnerships, since independence is prized.</p>
<p>Alliances Firms E, F & L Corn Pickers, Soil Looseners, Livestock Equipment</p>	<p>Formalized partnerships. Little evidence that mergers and formalized partnerships help to overcome dependence on agents in global markets. Some mergers with larger companies impact negatively on autonomy. Mergers of similar sized companies in niche markets divide up geographical areas between firms.</p>
<p>Independent Firm B Slurry spreaders</p>	<p>Hierarchy. FDI seeks to minimize agent dependence. Requires considerable time and energy of senior managers to find and integrate foreign subsidiaries Avoidance of partnerships. Lack of trust in local competitors and producers. Search for control and independence in global markets.</p>

8.3.2. Proposition 2: The global possibilities that small worlds offer are constrained by culture

Research into the mobile telecommunications sector has found that lead firms, and this could be particularly true of SMEs: “prefer partners and suppliers of their own nationality, or from culturally proximate countries, because of the similarity of the corporate cultures, and often

long-standing business relationships and resulting high levels of trust” (Hess and Coe, 2006, p.1219). This preference was clearly supported by some of the SMEs in this research. For example, several purchasers referred to Italian (clearly seen as “culturally proximate”) suppliers in the context that they were not really foreign (sub-chapter 6.3.1). In the chapter on context (2.2.2) the particularities of French business culture were noted: respect for hierarchy, formality in relationships and centralized bureaucratic control (Crozier, 1964), along with a growing, dynamic civil society based around voluntary associations, which enhance local ties. Furthermore sub-chapter 3.2.1 made reference to the assessment of the president of the French association of SMEs that French entrepreneurial culture does not spontaneously lead SMEs to turn towards exports.

This research has also established that many of these SMEs use embedded local relationships as a gateway to global contacts. The Purchasing Manager at Firm G, for example, recounted that she had got to know an Italian supplier through one of her company’s main clients in France (sub-chapter 6.2.1). The propensity of French managers for networking and forming groups was underlined by the outsider perspective of the UK agent of firm C, who described how the French were “*very loyal to their own*” and that “*it’s like a big club and they all seem to get on well*”. He contrasted this with the situation in the UK, where sharing information is done much less. He concluded that in France: “*you’d be mad if you didn’t join these groups*” (sub-chapter 6.4). Firm I explained the importance of using existing French contacts to find out about potential foreign distributors (sub-chapter 6.3.1). Additionally Firm A confirmed that it exchanged regularly with three other similar-sized firms in the sector (sub-chapter 7.3).

What emerges from the research is that, in the French case, close connections between managers and Directors in SMEs (what is called: ‘*le relationnel*’) offer opportunities of global contacts, but that at the same time a strong shared culture constrains internationalization. The professionals in Stage 3 of this research described a hesitation, panic or fear of the international in SMEs, which manifested itself through, for example, the simple arrival via the Internet of an order in English from a foreign country or the choice of the ex-works incoterm in order to disengage from responsibility in the area of exports (sub-chapter 7.4). The suggestion, at the end of this research, is that the strength of French culture and the embeddedness in local relations (whether business or social or both) actually provides a break

on grasping opportunities for global business: safer to stay with what is known, than unknown.

One possible solution to the dilemma that internationalization poses to a close culture is exemplified by a newspaper article entitled: “Vendée firms hunt in packs”¹⁴. This article describes how five agricultural machinery SMEs from the Vendée region presented their products at Trade Fairs in Poland, Quebec and Paris under a Vendée banner. Additionally in sub-chapter 3.2.1 one French SME Director, Dominique Parzy (Le Monde, 2012), noted that it was only by working with other companies that doors could be opened and money saved. However, as if to show that there was room for improvement, in the Stage 3 interviews, one professional said that compared to Italian and German companies, she had noted a relative lack of mutual aid and solidarity amongst French firms (sub-chapter 7.3). The extent to which regional inter-firm solidarity is used or not used by SMEs to prospect for global suppliers and customers requires further research.

8.3.3. Proposition 3: Supply Chain Management can learn from a study of SME practices.

“The fruitfulness of the chain metaphor is that it allows a highly abstract idea (economic globalization) to be grasped concretely, in terms of a series of relations organized around the economy’s most tangible entities (commodities or goods). But, from another angle, this strength may also be construed as a weakness. Applications of the chain metaphor appear to unfold in terms of separateness, difference and uniqueness” (Gibbon et al., 2008, p.330).

The chain metaphor allows us to grasp the concept of globalization (the transition from local to global connections) as a set of inter-firm linkages, even though the metaphor hides their usually asymmetrical nature.

This research has approached the question of SMEs and global supply chains from the perspective of context: the context of history, globalization and current experience. In a recent paper Halldorsson et al. (2015) confirm the importance of “sensitivity to context” in developing theory about SCM. It could be argued that the discipline of supply chain

¹⁴ *Les Vendéens chassent en meute*. Journal de la Vendée, novembre, 2012

management, in developing a set of strategies, techniques and tools for optimizing inter and intra-firm flows, has a tendency to set aside context and then to wonder why there is a discrepancy between prescriptions and reality. Consequently some researchers lament that only “transient instances of impressive practices” (Storey et al., 2006, p.755) could be found. Thus: “[...] while there is an emerging body of theory which ostensibly offers a relatively coherent and compelling prescriptive narrative, predominant practice is at considerable odds with this conceptualization” (Storey et al., 2006, p.755). Two of the most influential articles in the supply chain management discipline, with more than 500 citations in peer-reviewed articles each (Cooper et al., 1997; Lambert et al., 1998), defined SCM and the structure of supply chains in a decontextualized fashion and failed to mention the importance of size, power, small firms or asymmetries.

This divorce between theory and practice would not have surprised Cox (1999), who distinguished between operational and strategic approaches to SCM. He took the example of Toyota’s lean manufacturing system and explained that it was successful as a strategy because of the circumstances of Japanese deferential culture and the *keiretsu* system of networked local suppliers (Sako, 1992): in other words, context was everything. Seeing lean management as simply a series of techniques to be adopted and applied ‘off the shelf’ masks the fact that lean was also a strategy of structural dominance by the lead firm over dependent suppliers, made possible by a particular cultural setting. Cox viewed supply chains as areas of contestation for the appropriation of value and resources and also as essentially different, depending on the power structures within that supply chain.

In spite of the clear existence of inter-organizational linkages, management of these chains cannot be assumed: “Just because supply chains exist, it does not necessarily follow that they are actually managed” (Storey et al., 2006, p.761). And this is particularly true of SMEs: just because SMEs are part of supply chains, it does not necessarily follow that they manage them. The Logistics Manager at Firm A, one of the most logistically competent SMEs in the research programme, admitted that supply chain management in this company was in its infancy (sub-chapter 5.2.1). Indeed, it could be argued that SCM focuses on large firms (e.g. Toyota, Wal-Mart, Dell, Zara and Apple) precisely because they are most likely to have the resources, unlike SMEs, to be able to implement the range of SCM tools and techniques. The SCM discipline likes to see that the “idealized schemas of optimal routes and quantities for

demand fulfillment” (Storey et al., 2006, p.760) are actually being realized. SMEs are often the poor cousins in this respect: too much stock, not enough control of flows, slow at adopting new technology, lack of focus owing to multi-tasking, resource constraints etc.

This study has shown that managing supply chains for SMEs is as much, if not more, about relationships (Fuller and Lewis, 2002) than setting SCM objectives or the SCM philosophy of integration (Sweeney et al., 2015). Indeed, relationships and the concomitant power arrangements give a supply chain its peculiar characteristics and structure, within any given market context. The relationships can be changing or fixed, lead firm dominated or symmetrical, collaborative or opportunistic, supportive or unhelpful, long-lasting or temporary, local or global, over or under-embedded. For SMEs, both horizontal and vertical relationships in the supply chain are central to the success or failure of their firm. Whether, in an emergency, a partner agrees to deliver a component, will depend on the strength of that tie; if a large distributor does not promote your product, the solution is probably to build a better relationship; if you want to source from a new country, it will be more than useful to discuss the options with another firm in your network who already does so.

However relationships are not the only element of supply chain management that concern SMEs. The effective control and management of flows has also been shown to be critical in this research. For example, Firm O, a medium sized company carried out a three year project, involving external consultants, to reorganize and control its internal flows. Firm A has also invested heavily in staff training to improve its internal logistics and lean management skills to be responsive to demand. Firm G, on the other hand, reported that it had decided to stop its international activity because its internal logistics meant that it could not deal with the short lead times imposed by foreign customers. Therefore the greater the degree of internationalization of the supply chain, the greater the need for control over it. Firms in this research have begun to understand that managing their relationships and positioning themselves in relation to other companies must go hand in hand with control over the inbound, internal and outbound supply chain. Future research could explore the proposition that, for SMEs, effectively managing the supply chain is primarily a matter of context, relationships and control.

8.3.4. Proposition 4: The trend towards global sourcing, the need to avoid expensive asset investment and the diversity of materials now used in machinery all push SME final assemblers to buy rather than make.

In a visit to Firm A as part of this research, it was surprising how little manufacturing activity was actually carried out at this modern industrial site. As a final assembler, the firm's focus is on R&D, design, subcontracting, purchasing, procurement and logistic flows, rather than manufacturing from raw materials. There was no metalworking or foundry, for example – the traditional activities of an agricultural machinery firm. The SME had employed a 'purchasing project coordinator' with the role of staying abreast of supplier innovations and liaising closely with them on projects for new equipment. As noted in sub-chapter 5.2.1, Firm A's collaboration with suppliers starts at the level of R&D. To this end the firm invites key suppliers every six months to present their latest technological advances. For example, a UK electronics supplier had recently given a presentation about piloting the firm's machinery by smartphone.

How can the increased tendency to outsource amongst SMEs be explained? In part the reason for the outsourcing trend is technological. Agricultural machinery, which had been simply an assemblage of metal parts, has now become more complicated and includes plastics, rubber, composite materials and electronics. This diversity of materials requires a wide range of specialist knowledge. Rather than developing that specialist knowledge in-house and investing in new machinery, many firms in this research have chosen to outsource. (It remains to be seen whether 3D printing will now reverse the outsourcing trend for these SMEs, as the cost of producing certain standard parts becomes reduced.)

Into the outsourcing equation is thrown the question of language. One Purchasing Manager reported that in considering whether to choose a French or non-French supplier, he would be influenced by his technical department, who prefer talking about technical matters in French (sub-chapter 6.2.2). Despite this preference, this research has shown that, for many low-value, high-volume parts, sourcing globally has become standard practice for SMEs, often led by partner firms who have already taken that route. Reasons for and against outsourcing vary from firm to firm and from one individual Purchasing Manager to another. It should be noted that most Purchasing Managers either worked on their own, or with one or two assistants and were also in many cases responsible for procurement. The research indicates that SME make

or buy decisions are to a large extent the responsibility of the Purchasing Manager and will be linked to their particular priorities. Firm G's Purchasing Manager, for example, declared that she had autonomy in decision making and would follow her own principles (sub-chapter 6.2.2), which in her case were political, in the sense that she did not want to deindustrialize France.

The make or buy decision also needs to take into account the critical assets question (Cox, 1997; 1999) which is dealt with in more detail in section 8.3.6 of this chapter. Suffice to say that in the research (sub-chapter 6.2.5) some respondents recognized the importance of keeping and developing internal manufacturing capacity and others saw critical assets as located in final assembly and R&D activities.

8.3.5. Proposition 5: In SME global supply chains, mutuality, engagement for the duration, presence on the ground and the correct choice of partner are effective solutions to the agency problem.

For SMEs the initial problem in a principal agent relationship is dependence on the agent for access to domestic market information. Many companies recognize the risks inherent in this dependence on an import company: for example, finding out information about the local market clearly remains the task of the principal, but he is initially dependent on the agent for advice. Information asymmetry exists in principal agent relationships and this is one of the first hurdles to be overcome. The split of responsibilities between principal and agent varies according to country, culture and actors with potential consequences for the eventual success or failure of the project.

One of the main tenets of agency theory is that agents will act opportunistically and seek to maximize their own interests, often in opposition to the interest of the principal. Incidents of opportunistic behaviour and malfeasance in circumstances of long-standing relationships have been cited in the research (see Firm L, sub-chapter 6.4).

While the risk of opportunistic behavior can never be eliminated, solutions to such problems usually relate to the design of appropriate contracts, the proposal of incentives and the setting up of performance monitoring systems to protect the interests of the principal (Bergen et al., 1992; Fayezi et al., 2012; Shapiro, 2005). Wright and Mukherji (1999), however, have pointed out that the application of these standard agency theory solutions would lead to higher

transaction costs for both principals and agents. Conversely and interestingly from an SME point of view, they argue that socioeconomic theories' presumptions of enlightened self-interest and trustworthy behavior could lead to lower costs and reduced risk.

Four factors were found to be the most effective solutions to the agency problem in SME global supply chains. The first factor is informality, mutuality and non-contractual relationships. The leading exporter amongst the twelve SMEs (Firm I), when asked about the monitoring of foreign import companies replied that they did not judge the agents but tried to help each one to develop (see sub-chapter 6.3.2). The second factor is time: SMEs reported that some contacts with agents and suppliers in foreign countries had existed for many years and that this brought a sense of solidity to the business relationship. The third factor is presence. One SME, when asked to explain the reason for its growth in exports, replied that it had employed well-trained staff whose role was to support the distributors and to explain the product and its advantages to the agent and final customers. Some salesmen spent approximately half the year abroad. The final factor is the correct choice of partner from the outset: not making a mistake in terms of choice has been shown to pay dividends by the most successful companies.

Thus collaborative and informal networks of supply chain partners (Harland et al., 2004; Ogulin and Selen, 2012) are used to help firms to progress. They have also been found to mitigate the negative effects of asymmetries (Zaheer and Bell, 2005). Hessels and Parker (2013) found that informal collaboration produced better results for SMEs, in that it fostered independence. This research confirms these findings.

8.3.6. Proposition 6: Power asymmetries in SME global supply chains are exacerbated by more competitive markets.

Cox (1997; 1999; 2002) sees firms as aiming to possess power over someone or something. Supply chains are viewed as areas of contestation for the appropriation of value and resources, both horizontally between producers seeking the same resources and services upstream and downstream, and vertically between buyers and suppliers. In this model interests in the chain are conflictual, since each firm is trying to leverage and capture value. This can leave SMEs in a disadvantaged position, given their lack of structural dominance of suppliers and distributors in the chain, but, as Cox points out: “[it] is not the same as saying that they would

not seek to leverage more value for themselves if circumstances allowed them to do so” (1999, p.172). Given half a chance, SMEs would do the same.

Cox relates the concept of critical assets to supply chain power and shows that a buyer who has a number of openly competitive and interchangeable suppliers, is able to exert power over these suppliers, irrespective of the value of the product, because of the absence of relative scarcity. In this research, firms C and D described how the number of firms in the trailer and spreader markets is increasing and how they had little, if any, power over dealerships. This also relates to resource dependency theory (Pfeffer and Salancik, 1978), since the final assembler SME is entirely dependent on the dealership to promote its machinery in a particular geographical location; in other words, in a crowded market the SME relies heavily on the resources of the agent being used in its interests.

On the positive side, as a result of this competition, rigour was imposed on the SME. To maintain rents, both these SMEs in the trailer and spreader market sector, are obliged to position their product at the top of the range, to develop supply and process innovation and to attempt to protect their market position. In congested markets, for a resource constrained SME this is a challenging strategy. Interestingly, firm C, the most successful French manufacturer in this sector, chose to focus its export activity on the nearby crowded UK market, while firm D, with less of the domestic market share, focused on the more distant Eastern European markets, where less competition exists.

However, while the UK agent of firm C focused on the difficulties of the competitive market in the interview, Cox (1997) downplays the importance of the market and sees it as an effect and not a cause, given that, for him, supply innovation and entrepreneurialism precede demand in business activity. To survive and prosper in the Coxian analysis, as in the resource-based view (Barney, 1991) these SMEs need to possess critical assets in the supply chain, be able to capture value and protect against competitors seeking to copy their product. Although these SMEs have improved supply chain processes and innovated, so that they now offer extensive product ranges and options, the market is as it is, whether it is deemed cause or effect. Whereas a few years ago there were only a handful of trailer manufacturers, today there are over 30 in the UK. The contested marketplace for an SME is always a more difficult place than a niche market, even with a co-ordinated and efficient supply chain. Moreover in a context where the buyer, in this case the dealership, sells other higher value products with the

possibility of greater remuneration through the offer of substantial incentives, the SME's product is not treated as a priority (sub-chapter 6.3.3).

So, in the agricultural machinery market, where a range of machinery is on offer to farmers via dealerships, power asymmetries exist between manufacturers of different products. The tractor manufacturer that possesses the franchise dominates the dealership, while a series of interchangeable manufacturers of lower value machinery (e.g. trailers and spreaders) attempt to raise their flag and be seen by the final customer.

This was not found to be the case in niche markets, such as that of seed drill manufacturers, where there are fewer competitors and the competition is less rude, even though there was a similar wariness of larger firms especially on the upstream side. However on the downstream side there were instances of targeted alliances with large players in particular countries. This suggests that a more competitive market makes overcoming power asymmetries in the supply chain more difficult for SMEs, and also that a highly specialized market affords possibilities to explore ad hoc partnerships with leading companies, in a situation where a large company has decided against diversifying into the particular speciality of the SME.

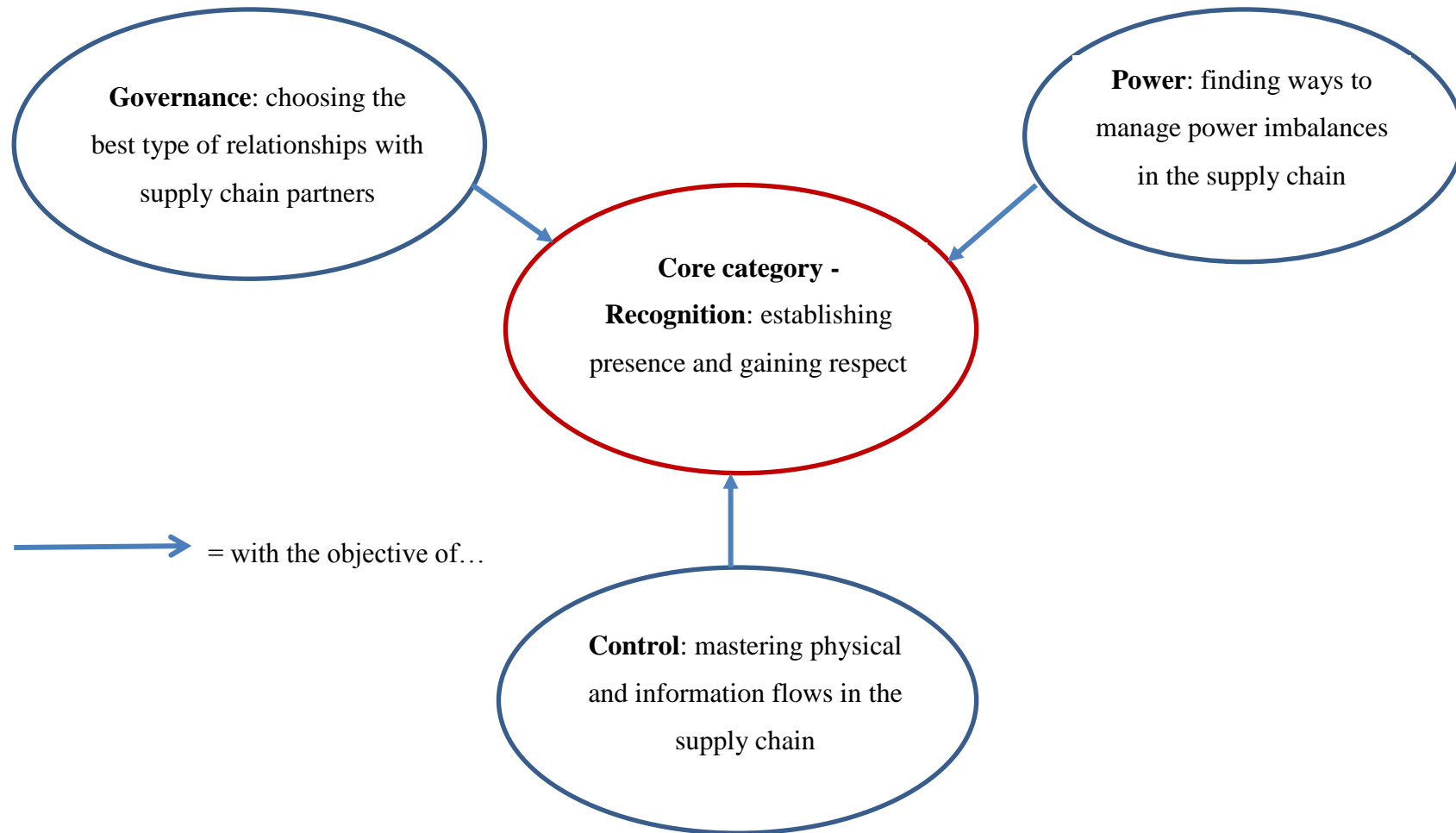
8.4. Finding the core category: recognition.

The propositions discussed in section 8.3 of this chapter have developed thinking about SMEs and global supply chains in relation to the Governance, Control and Power (GCP) model. It is now important to focus on the link between these different categories and what in grounded theory is referred to as the core category or main theme of the research: what the research is all about. Strauss and Corbin (1998) outlined the function of a core category in grounded theory and its purpose:

“The central category (sometime called the core category) represents the main theme of the research. Although the central category evolves from the research, it too is an abstraction. In an exaggerated sense, it consists of all the products of analysis condensed into a few words that seem to explain what “this research is all about” [...] once an analyst explains in detail how he or she arrived at a conceptualization, other researchers, regardless of their perspective, should be able to follow the analyst's path of logic and agree that it is one plausible explanation of what is going on” (Strauss and Corbin, 1998, p.146).

Here the core category is the concept of recognition and this section sets out how such a concept has emerged from the data and its relationship with the categories in the GCP model of governance, control and power. Fig. 8.2 demonstrates that the objective for an SME of choosing the best type of relationships with supply chain partners, finding ways to manage power imbalances in the supply chain and mastering physical and information flows in the supply chain is to establish presence and achieve recognition from different partners and actors.

Fig.8.2 The GCP model related to the core category of recognition in the case of SMEs.



Before discussing the emergence of recognition as the core category in this research and applying it to the context of supply chains, it is important to consider what it is. Recognition is defined as: “Acknowledgement of the existence, validity, or legality of something”, and “Appreciation or acclaim for an achievement, service, or ability” (Oxford Dictionaries, 2016). How is recognition analysed conceptually?

This discussion relies on political theory and the works of a number of writers (Taylor, 1994; Honneth, 1995; Fraser and Honneth, 2003; Thompson, 2006; Kompridis, 2007) who have developed thinking in the areas of identity, recognition and politics. These commentators argue that the growth of contemporary social movements such as feminism, ethnic minorities, gay and lesbian groups, can only be understood as demands for recognition, based on the identities of these different groups. They maintain that the idea of recognition is essential in order to understand what is happening in contemporary politics and that a just modern society would be one where everyone receives their due recognition. In this analysis and this is a key point in this discussion, every form of political action, which is neither economic nor redistributive, can be interpreted as a struggle for recognition.

Different groups struggle for or demand recognition:

“Often the group demanding recognition feels inaudible and invisible. It has a strong sense of being marginalized and excluded, left out and ignored. Hence the demand for recognition is a demand to be seen and heard, to count for something, to be included [...] A group seeking recognition may feel overlooked, unvalued and even denigrated. As a consequence, it may demand that its distinctive contribution be valued and its unique identity affirmed” (Thompson, 2006, p.7-8).

However it has to be noted that recognition, once given, is not a panacea and that misrecognition does not remove or adversely affect agency, nor does it necessarily represent an injustice, but can constitute an opportunity for critical reflection:

“Our power to shape our identity and exercise our agency does not strictly depend on receiving in advance the appropriate form of recognition. We are able to do so, over and over again, despite the denial or absence of such recognition” (Kompridis, 2007, p.283).

Taylor (1994) established a close link between identity and recognition, by emphasizing the key role that others have in the formation of our own identities. Indeed his argument is that identity is achieved through dialogue and exchange with others. Hence recognition by others reaffirms our identity and validates our participation in society. This has been termed an instrumentalist approach to recognition (Kompridis, 2007), in that recognition becomes a means towards the end of self-fulfilment. Clearly legal recognition (e.g. same sex marriage) can enhance a sense of self-worth, but more widely, instrumentalizing recognition is problematic, because recognition is not quantifiable or easily measurable (except perhaps in the digital world, see section 8.4.1): it cannot be distributed or redistributed more equally, in the way that economic resources can be, for example. It is inter-subjective, it rests in the eyes of the beholder, and it can be temporary and/or partial. Built into every act of recognition is the possibility of misrecognition. This leads Kompridis (2007, p.287) to conclude that:

“I think we can safely say that full and complete recognition is a chimera. All recognition, even the very good kind, is partial, both incomplete and one-sided [...] Our desire for recognition may turn out to be a desire for which ‘we can’t get no satisfaction’, not even from equals”.

Despite this difficulty in achieving it, recognition can be seen as a pervasive idea in the modern world, in that it is often used indiscriminately (Thompson, 2007), as it is closely linked to identity politics. Honneth (1995) emphasizes that recognition is a dynamic, reciprocal process between parties and that to understand what is going on, the value that each party places on the other and the nature of the relationship must be understood.

Given these definitions of recognition and the sense in which it is struggled for, yet perhaps neither wholly attainable, nor a lasting solution, as it is presented in political theory, how could recognition be applied to the context of supply chains and SMEs and moreover, what does it add to theorizing, beyond the trite observation that all firms want to be recognized? Also is it possible to transfer from the political field to the context of inter-organisational SME relationships, a concept that has been developed to refine thinking on the emergence and claims of different groups within society?

8.4.1. The importance of recognition for SMEs in global supply chains

In considering how recognition can be applied to supply chain thinking, it is useful to begin with an article by Carter et al. (2015). In developing a theory of the supply chain, they maintain that a supply chain only exists to the extent that it is visible: we can only see as far as our known horizon. The visibility of other agents in the supply chain by the focal firm becomes attenuated as the physical or cultural ‘distance’ increases or the number of nodes increases. As a result supply chain boundaries become less clear or fuzzy as the focal agent peers towards the horizon. Carter et al. distinguish between the physical and support supply chain and maintain that those partners within the visible horizon in the physical supply chain will receive most research and managerial focus and those outside the visible horizon and providing support services will receive the least, as shown in Fig. 8.3:

	Within the Visible Horizon	Outside the Visible Horizon
Physical	++	-
Support	+	--

Fig. 8.3 Juxtaposition of Supply Chain Structure and Boundaries (Carter et al., 2015, p94) Note: ++ (a great deal of research and managerial focus), + (some research and managerial focus), - (very little research and managerial focus, and -- (almost no research and managerial focus).

The idea of visibility is essential to this conceptualization and implies some knowledge, however imprecise, of a partner somewhere in the chain. Therefore visibility is the ‘*sine qua non*’ of supply chain relationships: an essential first step towards collaborative working. And visibility is about being seen, as well as seeing:

“The difficulty with our partners is the visibility of our brand. If our partner does not make the effort to communicate, given that he distributes a large number of brands, our own brand is lost in all that and is no longer visible on the ground. That is

something that we really need to be think about in the future: how to be seen by the final customers, the farmers” (Firm A, sub-chapter 5.2.1).

Visibility of the brand, visibility of the company and visibility of the company’s product are all important for SMEs. The visibility metaphor can be taken further in supply chain thinking to encompass the concept of recognition. A supply chain partner can, of course, be visible, but ignored or misrecognized. Arguably, the supply chain partner is more likely to be recognized if it is represented by someone of higher status in the firm. SMEs are often the expression of one person’s (the founder and/or director) drive and ambition (Hsu et al., 2013) and therefore representation by the director can be interpreted as a bid for recognition. In the case of several SMEs, it was the Director who carried out a lot of the international sales work. This was not simply because s/he enjoyed the travel, but also because s/he recognized that representation of the company by the Director carried more weight in negotiations, than if it were a lower ranked employee.

Achieving recognition is then linked to the status of the SME’s representative:

“Our representatives have to have a certain status and stature. Sometimes we have been working with the import companies for more than 20 years, so our representative, who arrives, has to be capable and able to bring something extra to the discussion” (Firm A, sub-chapter 5.2.1).

If a global leader acknowledges the value of an SME’s product and capabilities, this is seen as enhancing prestige. One SME saw the fact that John Deere, the leading global manufacturer in the sector, had offered to market and distribute the SME’s products under the John Deere brand in a particular country, as a sign of recognition of the quality of their machines. Also their reputation amongst their rivals and peers in the industry has grown, having been selected by the world leader in the sector.

The difficulty of achieving recognition in competitive markets for SMEs is illustrated by this quote:

“It takes a very long term presence to become a market maker. It is built over decades. At a minimum you need an ultra-innovative product: something remarkable that nobody else has” (SB, Firm A, sub-chapter 7.5).

It needs to be remembered that the particularity of the agricultural machinery sector is that it is a complicated market involving a large panel of suppliers to be managed and an after sales service that needs to be in place to reassure the final customer, the farmer. Evidently the supply chain is easier to manage for an SME if it is close to home, than distant. The value of recognition, built over time, helps to mitigate the challenges posed during the process of establishing a global presence.

In supplier relations, one purchasing manager expressed this desire for respect from a larger supplier in the following terms:

“I try not to go to the suppliers that are too big, because we do not have an enormous turnover. I want to have enough weight, not power, but I want to be heard by the supplier. I do not want to have a big machine in front of me which will laugh at me when I ask for some specific things for our company” (Purchasing Manager, Firm A, sub-chapter 6.2.4).

The difference between the meanings of ‘weight’ and ‘power’ is telling here. The first signifies recognition of the SME’s reputation and status, while the second is more quantifiable and could relate to turnover or the number of employees. The key point for the purchasing manager is that he does not want to receive ‘non-recognition’.

On the downstream side in this sector, Trade Fairs in different countries have been shown to be the key location for visibility, with the eventual objective of recognition: *“The purpose of Trade Fairs is not necessarily to get to know the country: it is to show that we are present”* (Sales Manager, Firm E, sub-chapter 5.2.5). During a visit to an agricultural machinery Trade Fair (ironically entitled SPACE) in Rennes, it was clear to the author that small firms jostle with larger firms to display their wares, that the latter’s stands are more impressive than the former’s and the space occupied is greater. All firms see the importance of raising their flags in these shows.

Based on this research, for SMEs, visibility is the foundation of supply chain relationships, contacts and exchange with partners are the second step and recognition by other firms is the goal. Fig 8.4 demonstrates this conceptualization of a hierarchy of the perceived value of partners in supply chain relationships. As the perceived value of the supply chain partner increases through recognition of domain excellence, competence and reputation, so the higher

level of the pyramid is reached. It should be remembered, following Kompridis' (2007) qualification, that the desire for recognition may be insatiable and that full recognition is probably illusory. However what has emerged from the research is that SME managers express such a desire for recognition from visible supply chain partners and a refusal of non-recognition.

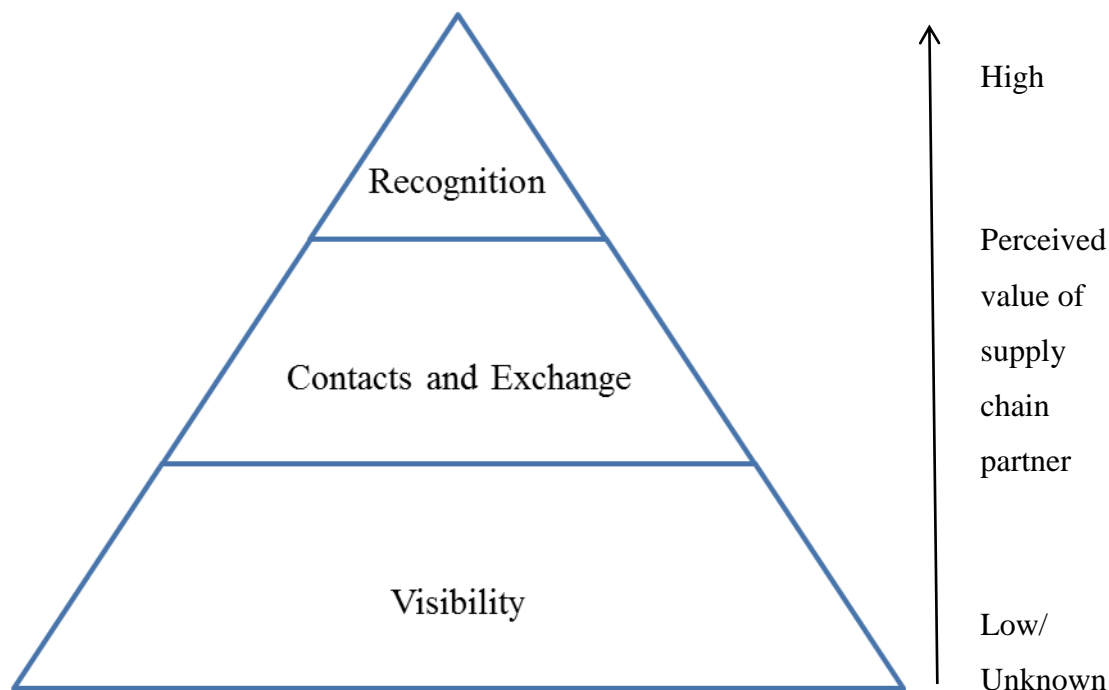


Fig. 8.4 A hierarchy of perceived value in supply chain relationships

8.5. Building bridges with political theory.

From the earlier discussion of recognition, as presented by political theorists, two important points need to be retained. Firstly, every form of political action, which is neither economic nor redistributive, can be interpreted as a struggle for recognition. Secondly, a demand for recognition is a demand that a group be seen and heard, that its distinctive contribution be valued and its unique identity affirmed. Finding examples in the expressed views of SME managers in this research, about the importance of recognition in supply chain relationships is not difficult. The following phrases can be cited:

'It is easier to be heard when you represent something', 'raising the flag', 'establishing presence', 'we're very low down on the pecking order', 'we're pond

feed', 'they are specialists', 'If I can avoid them, I do', 'for those [distributors] we are not a priority', 'they do not listen', 'when you have distributors [...] the brand image is often in the background', 'I prefer to go and find someone who is really an expert in the field', 'the size of the suppliers is so large that you can find yourself drowned in the mass'.

In proposition 6 of this chapter it was suggested that a more competitive market makes overcoming power asymmetries in the supply chain more difficult for SMEs and this research has shown that these asymmetries are a major concern of SME managers. In political theory a strong link between power (or rather powerlessness) and the demand for recognition is postulated. Just as powerless or disenfranchised groups within society demand recognition, so too do SMEs that seek to build their reputation in global markets, in an environment of much larger and more dominant players.

This evident demand for recognition on the part of SMEs leads onto a key question about power in the supply chain, posed by Macdonald (2014, p.11):

“In what sense, though, can we understand forms of supply chain power that are usually regarded as ‘private’ – that is, being exercised by corporate actors through economic institutions and relationships – as being distinctively *political* in character?”

While Macdonald’s focus is on the exercise of power by large corporations in global supply chains that exploit low-paid workers and ignore ethical standards in developing countries, the question could equally be applied to the economic dominance of multinationals over smaller firms in developed countries. Her answer to the question (in line with the critics of globalisation) is that it cannot be assumed that economic power is subordinate to state power and that consequently private power has entered the public domain, has become political and therefore contestable and contested. On the receiving end of this economic or political power in developed countries, often through the medium of supply chains, are SMEs.

In chapter 2 it was noted that France has lost 40% of its industrial jobs in the last 30 years and that there are too few SMEs big enough to capture market share in foreign countries and establish themselves globally. There are a number of explanations for these trends, as was shown in chapter 2, such as the arrival of large foreign competitors on French soil, tight

margins, the consolidation of the sector, the specific French context, the absence of strategic support to the sector etc.

However what this research has shown is that large firms exercise power in supply chains over SMEs in both direct and indirect ways. Two examples of the direct exercise of power can be cited: firstly, in the case where a large supplier has an SME customer, an SME's specific requirements are a low priority for the large firm, due to the SME's relatively low purchasing power. An SME customer represents a small percentage of a large supplier's turnover and therefore receives less favorable treatment than larger customers. Secondly on the downstream side, in the case where a large firm is selling their product through the same distributor as an SME, the large firm has the ability to substantially incentivize distributors to promote their product and to effectively sideline the SME's product.

Two examples can also be found of the indirect exercise of power by large firms: firstly, one of the specialist advisers in international trade referred to the ever present fear of a buy-out by a larger firm (sub-chapter 7.5): "*A medium sized firm is a little afraid of bigger firms because it doesn't want to be bought out*". Secondly in sub-chapter 5.3 it was shown that large firms have the necessary resources to internalize risk (for example by owning distributor subsidiaries in different countries) or to achieve cost savings and reduction in carbon emissions (for example on the procurement side, by organizing transport pooling schemes involving foreign suppliers). Extra resources offer advantages and the possibility of setting up a more sustainable supply chain. However, if we take the example of the transport pooling project from suppliers in Italy (sub-chapter 5.3.2), it was noted that many SME purchasing managers also had suppliers in Italy, but the benefits of such a scheme had not been made available to small firms by the large firm. These types of logistic advantages available to large firms, as a result of size and resources, appeared to be rarely extended to smaller firms, located in the same region, in a show of solidarity and can be interpreted as a form of exclusion.

In circumstances such as these, distribution channels become sites of conflict and possible exclusion (Stern & Reve, 1980). These practices raise questions about at what point supply chains become political; to what extent are the odds stacked against certain players; what protection and redress does the political and policy realm offer in circumstances of the misuse of supply chain power; to what extent are unjust power relations hidden in SCM, as a result of

reification (in Marxian analysis, the process of obscuring human relationships by focusing on technical and material exchanges)?

At this point and continuing to apply political thinking to the subject, it is useful to consider the work of Machiavelli (1514) and where he refers to the state/the Prince to substitute the large firm. In support of such a substitution, it can be noted that comparisons between the extent of corporate and state power are now common (Rodrik, 2012; Macdonald, 2014). Machiavelli argued that it is in the interests of the citizens for the Prince as the head of state to keep power and maintain order and that the Prince may do anything he chooses to prevent disorder in the state. Amoral conduct by the Prince is therefore acceptable. The outcome of the actions of the Prince is subject to moral examination, not the intentions:

“Machiavelli argued that it was irresponsible and morally wrong to apply to political action the moral standards that are appropriate to private life [...] Machiavelli implied that morality in politics must be a consequentialist morality” (Hampshire, 1983 p.122.).

Would large firms use the same justification of consequentialist morality for their actions in relation to smaller firms in their supply chains? Do the ends of shareholder interests, capturing market share and maximizing profits justify the means of exclusion, imposing conditions and monopoly practices? At least the Prince’s amorality, for Machiavelli, was in the interests of wider society or what can be termed, the common good. In this case the interests served are arguably more restricted¹⁵.

Machiavelli’s prescriptions for leaders of city states at the time of the Italian Renaissance were aimed at extending authority and securing stable government in what were corrupt and volatile circumstances. The following extract from *The Prince* is included to show that Machiavelli’s advice on how to rule smaller satellite city states has parallels in how modern large firms respond to the autonomy of smaller ones today. The objective is to exercise power over them and the amoral means are justified by the end:

¹⁵ Whether large firms serve the interests of the common good is a moot point and one recently explored in depth by the French economist and Nobel prize winner, Tirole (2016).

“When states newly acquired as I said have been accustomed to living freely under their own laws, there are three ways to hold them securely: first, by devastating them; next, by going and living there in person; thirdly, by letting them keep their own laws, exacting tribute, and setting up an oligarchy which will keep the state friendly to you” (Machiavelli, 1514, p.47-48).

In strategic terms, just as Machiavelli was interested in how city states could hold onto power in the face of competition from other city states, so too, multinational corporations pose themselves the same strategic questions today: ‘how can we compete with rivals and make sure smaller supply chain partners act in our interests?’ Strategies such as just in time delivery and stock displacement to the supplier can be considered as ways in which large lead firms pass on risk to smaller suppliers.

Machiavelli conceived of power as a strategy and based in everyday practices and actions, whereas Hobbes (1651) saw power as located in the sovereign. In the first, power is dependent on the forces at play in society and therefore can change, whereas in the second it is fixed and possessed usually by an individual. This difference between strategic and sovereign power has been used to study intra-organizational power (Foucault, 1977; Clegg, 1989; Introna, 1997) and modern theorists have stressed the Machiavellian approach that power is about the relation between forces in a network. Deleuze in his book on Foucault writes that power networks are:

“simultaneously local, unstable and diffuse, do not emanate from a central point or unique locus of sovereignty, but at each moment move from one point to another, in a field of forces, making inflections, resistances, twists and turns[...]” (1986, p.73).

Sheridan gives his own version of Foucault’s definition of power:

“Power is an effect of the operation of social relationships, between groups and between individuals. It is not unitary: it has no essence. There are as many forms of power as there are types of relationships. Every group and every individual exercises power and is subjected to it” (1980, p.218).

How can this notion of power as contingent, pervasive, mobile and demonstrated in acts and counter-acts be applied to the circumstances of asymmetric inter-firm relationships studied here? Clegg in *Frameworks of Power* (1989) developed a concept of ‘the circuit of social

integration' to analyse how power operated within organisations. Reasons for the failure of organizational change, for example, could be found in a lack of fit between existing social conditions within a firm, such as norms, values and meanings on the one hand and changed or changing material conditions, such as technology, work methods and techniques on the other. The idea of fit (Stock et al., 2000; Arend and Wisner, 2005) or lack of fit, borrowed from economics, can be transposed to inter-organisational relationships to show how firms complement each other (or not) in a supply chain. In this context fit implies a balance between two firms and lack of fit an imbalance. The author postulates that for inter-organisational relationships to be successful from an SME perspective, fit needs to occur in relation to the Governance, Control and Power (GCP) model presented in section 8.2 of this chapter, as shown diagrammatically in Fig. 8.5 (below).

Firstly firms that approach networking, partnerships and alliances in a similar way are more likely to work well together than those which demonstrate different governance arrangements. For example one of the key differences between firms B and C in this research is that, although their sites are within 50 kilometres of each other and they are in the same sectorial speciality, they have different approaches to governance: as shown in Table 8.4, firm C is involved in informal networks, whereas firm B is engaged in hierarchical forms of governance through offshoring activities and the creation of foreign subsidiaries. Secondly on the level of critical assets, fit is achieved by complementarity: where the critical assets of one company complement or add to those of another, without competing. Also on the level of professional methods, fit is achieved by mutual recognition of the competences of each firm in relation to innovation, quality standards and reliability of service: a similar level of development. One example of such compatibility from the research would be the complimentary description by firm A's Purchasing Manager of working relations with specialist technical suppliers (sub-chapter 6.2.3). Finally in relation to the power forces between firms, fit is achieved by similarity in size. The research has shown that SMEs seek to avoid working with much larger firms and prefer working with those of a similar size. Fit or lack of fit is not fixed and is subject to Deleuze's previously cited assertion that relations in networks develop and change. The author postulates that with lack of fit at any of these three levels, an inter-organisational relationship, involving an SME, risks disintegration or simply not being created and that, on the other hand, achieving fit at all three levels is beneficial to both parties.

This appears to run counter to some of the findings of the Industrial Marketing and Purchasing Group (Hingley, 2005; Hingley et al., 2015; Munksgaard et al., 2015) who argue that asymmetries can be acceptable and workable and that a ‘tolerable’ imbalance is often found. Symmetrical supply chain relationships are seen as an idealization. Indeed Cox (2004) would argue that an ideal balanced fit between organizations in a supply chain is rare, given that both parties seek to expropriate and capture value for themselves.

In response to the IMP analysis three points can be made. Firstly, as Foucault suggests (Sheridan, 1980), power has to be concealed to be tolerable. When power becomes overt and explicit, it is more likely to be resisted: insidious and secretive, it is more readily accepted. So the fact that power imbalances are apparently accepted between firms does not negate the existence of these differentials. For researchers, then, it should be concealment that is the focus, not acceptance, or rather the acceptance of power through concealment, normalization and non-resistance.

Secondly, it is acknowledged that power asymmetries in a supply chain can be productive, as was noted by the Export Manager of Firm D (sub-chapter 6.3.3), for example, when he reported that working with a large foreign dealership did not make life more difficult for his firm, it just demanded more rigour. Russ in her work on Foucault emphasizes this point:

“In fact, power does not only repress and censure, it also produces [...] We need to stop understanding power as a negative force, so that its productivity and creativity can be measured”¹⁶ (1979, p.68).

Finally, Cox’s expropriation and capture of value may be the case, leading to the possibility of contestation in supply chains, although it clearly does not prevent SMEs from preferring to deal with similar reputed firms that possess compatible critical assets and are at roughly similar stages of development and professionalization. This expressed choice brings to mind Granovetter’s (1985) assertion that firms prefer to transact with individuals of known reputation (author’s underlining). It is this preference that renders the notion of fit, as shown in Fig. 8.5, coherent.

¹⁶ Translated from : « En définitive, le pouvoir n’est pas seulement ce qui refoule et censure [...] Il faut cesser de comprendre négativement le pouvoir pour en mesurer l’exercice productif et créateur. »

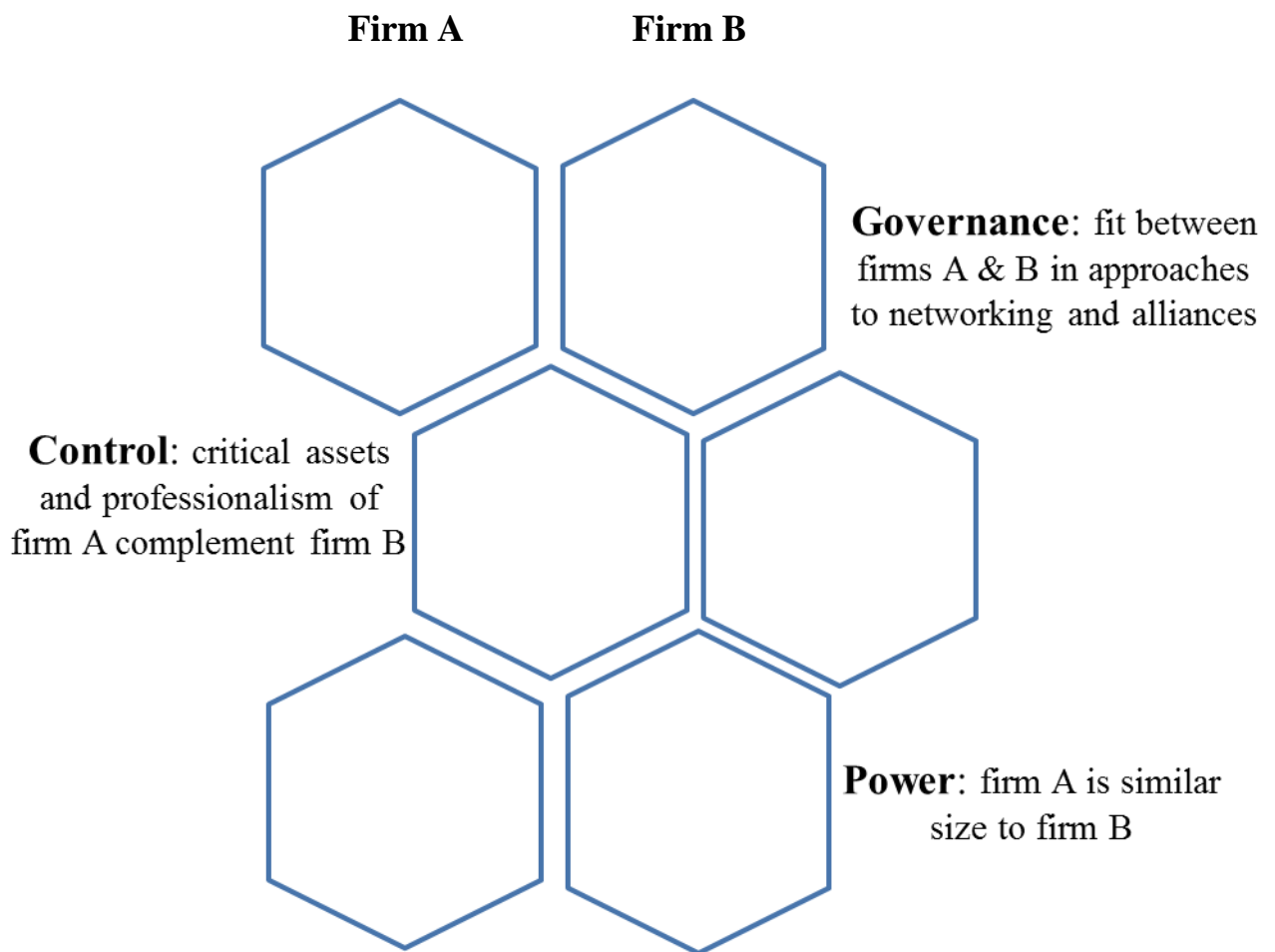


Fig. 8.5 Fit between SMEs in relation to the GCP model

8.6. Revisiting the small firm

The criticality of the study of SMEs can be gauged by the following excerpt from a recent European Union report: “Across the EU28 last year, some 21.6 million SMEs in the non - financial business sector employed 88.8 million people and generated €3,666 trillion in value added. Expressed another way, 99 out of every 100 businesses are SMEs, as are 2 in every 3 employees and 58 cents in every euro of value added” (EC Europa, 2014, p6). Despite the central role played by SMEs in the economy, Granovetter’s criticism that they are seen as ‘backwaters’ still holds true more than thirty years later:

“That the study of organizations is often taken to be synonymous with that of "complex organizations" in modern life bespeaks our assumption that modernity

begets complexity; complexity in organizations is highly correlated with size, and smaller, ""simpler" organizations are thought to be " backwaters," implicitly unworthy of study" (Granovetter, 1984, p.333).

The modern "start-up" as a site of innovation is perhaps starting to 'buck this trend'. The value of SMEs lies not only in their economic or creative contribution, but also in their social value and human scale. This was illustrated by the UK agent of firm C who described the impression made on UK distributors when he accompanied them on a visit to the SME's factory in Brittany: *'you've got a sense of being part of a family and all the dealers said that, whereas you don't with the faceless John Deeres'*. Small is not only bountiful, but also beautiful.

There remains the question of why small firms persist and whether the explanation is simply risk shifting by larger firms: where risk is shifted into the periphery occupied by small firms at moments of uncertainty or cyclical fluctuations, such that small units are created as receptacles for the offloading of large firms' marginal, high risk activities. Granovetter prefers the explanation that social structure linked to specific market conditions, rather than purely economic and opportunistic behaviour, determines the prevalence of small firms:

"I suggest here that small firms in a market setting may persist instead because a dense network of social relations is overlaid on the business relations connecting such firms and reduces pressure for integration [...] the embeddedness account may be more useful in explaining the large number of small establishments not characterized by satellite or peripheral status" (Granovetter, 1985, p.507).

This research has shown that such a dense network of social and business relations have existed in the agricultural machinery sector for several decades, mostly in family-based small firms.

8.7. Research validity

Guba and Lincoln (1986, p.547) state that in research, the processes for transforming the data into information must be apparent and "publicly confirmable so that their logic and coherence can be tested". This has been the objective of this thesis and this section will set out how this has been achieved following the four trustworthiness criteria described by Halldorsson and Aastrup (2003): credibility, transferability, dependability and confirmability.

Firstly the concept of credibility is related to the idea that there is not one single and objective reality but rather, it is constructed. Therefore in order to be credible, research has to be affirmed by the respondents themselves, so that there is a match between the respondent's constructions and the researcher's representations of them. This has been the purpose of the third stage feedback sessions, where a series of presentations of the research were made to different SME managers and professionals in order to see whether the researcher's representations were in line with their own experience and perceptions. Chapter 7 describes in detail the responses to these presentations and shows that the researcher's findings were indeed credible for the professionals and SME managers.

The second trustworthiness criteria is transferability. This refers to the extent to which the research is able to make more general claims about, in this case, global supply chains and SMEs. Clearly there are constraints on the generalizability of any research project's findings in terms of time and space. No two contexts will be identical, which leads Erlandson et al. (1993) to conclude that no true generalization from one context to another is possible. There needs to be a similarity between the sending and receiving contexts to ensure transferability and variables that can be applied in both contexts. The onus is on the receiver to ensure the transferability of the research that she or he is relying on. In this case it has to be stated that the transferability of these findings will be more likely to be possible in the case of similar types of firms in similar contexts: i.e. small traditional manufacturing firms in developed countries that have existed for decades and are trying to internationalize their activities.

The third criteria is dependability which is achieved through detailing the process and decisions taken in the research programme. Shifts in the methodology need to be openly stated and inspected, so that changes can be tracked. Dependability in this research has been achieved through a detailed and open presentation in Chapter 4 of the grounded theory methodology employed and in particular of the coding method, the different coding stages and the data reduction method. Figures and Tables have been provided to make the research process clear and specifically to demonstrate the change from a direction of flow logic to a more conceptual approach.

Finally confirmability relates to the notion of objectivity; in other words that the findings of the research are not the product of the researcher's bias but of the inquiry. To achieve this data must be trackable to the sources and this has been achieved in Chapters 5, 6 and 7 by

providing extensive direct quotes from interviewees. Clearly selections have been made since space does not allow for all relevant quotes to be given. The purpose of the tables at the beginning of each subsection of Chapter 6, however, are designed to show that there were other quotes that made the same points, but were not included for two reasons. Firstly to avoid repetition and secondly to demonstrate that the selections that were made were also representative of views expressed by other interviewees.

8.8. Relevance of theoretical framework

With reference to the theoretical framework outlined in Chapter 3, this section will consider the relevance of the five theories presented in Chapter 3 in the light of the findings of this research.

Firstly applying transaction cost analysis to SMEs as in the case of any firm remains a valid exercise. All firms incur costs in connection with the transaction of goods and seek to minimize them. However, as was presented in section 3.3.2, underpinning transaction cost theory is a view of human behaviour as opportunistic and limited by bounded rationality. This led Williamson (1975) to prefer internal hierarchical organization over contractual market relations as a means to reduce the risk of exposure to transactions with possibly unreliable economic agents. Granovetter (1985) criticized Williamson's undersocialized conception of business relations, seeing them as based on concrete personal relations which guard against opportunism. Evidence from SMEs in this research supports Granovetter's notion of the importance of personal relations and contacts at both the local and global level. Additionally the few SMEs that had decided to internalize production did so, not for reasons of wanting to avoid risk-laden relationships with suppliers, but to ensure and develop critical assets. Williamson's model of the business world, as consisting of opportunistic players seeking to maximize their own interests and leading to a preference wherever possible for internalization, is not borne out by this research. Indeed this research shows that for SMEs supply chain risk can be minimized by actively seeking out reliable named individuals in other firms with whom they can develop relationships, often over a long period of time.

Given the persuasiveness of the modern business strategy of focusing on core capabilities and subcontracting non-core activities, combined with limited human and financial resources, SMEs have to find ways of managing relationships that extend beyond their firm and national boundaries. The key features of such a management are non-contractualisation and time. For

example the average duration of relationships with European partners for Firm I was between twelve and fifteen years and no formal performance monitoring of foreign distributors took place. The Purchasing Manager at Firm K reported that the reason he avoided big suppliers was because they have a high turnover of staff and therefore it was difficult to develop relationships with particular managers in these firms. SME managers seek to build a small world that can extend across regions and frontiers and where all parties are ‘in it for the long term’. Building personal relationships between managers in different firms serves the triple purpose of guarding against opportunistic behaviour, rendering agents loyal to the brand and also making sure that they are fully trained in the use of the equipment.

Secondly agency theory examines the question of how a principal can obtain a good service from an agent. The standard solutions to this problematic are normally through the use of contracts, incentives and performance monitoring (Stock, 1997). Again, as in the case of transaction cost theory, agency theory is based on assumptions about individual and social behaviour that this research would challenge. Rather than seeing the priority of individuals and firms as maximizing their own interests and external actors as potential risks, the SME managers viewed collaboration and trust as essential to their inter-firm relationships, supporting Fuller and Lewis’s (2002) maxim that for small firms “relationships mean everything”. This does not invalidate the original agency theory question of how a principal can obtain a good service, but it raises doubts about the solutions proposed and about the over-simplification that the theory implies. It should be borne in mind, for example, that one of the most successful SMEs internationally, Firm I reported that they were not in a game of competition with their foreign distributors, nor did they evaluate or compare distributors. The SME’s role was to help the distributors to progress. Indeed as Macaulay (1963) pointed out, constructive inter-firm relationships can be hindered by an overly contractual and transactional approach. This research shows that for SMEs solutions to the agency theory problem in terms of relationships with key global partners are to be found in obtaining reliable information about potential contacts and then investing in the development of relationships with agents over the long term.

Thirdly embeddedness theory is supported by this research. Polanyi (1944) is credited with having invented the idea that economic relations are embedded in social relations and that the classical economists, in a Utopian project, had sought to “disembed” economic relations as

part of a vision of a self-regulating market. This research has shown that small firms, because of their dependence on inter-firm relationships, are a good example of how economic relations are embedded in social relations and that how, beyond the national level, SMEs seek to reproduce the certainty and familiarity found locally. The practices of these firms confirm that, for them, notions of trust and cooperation take precedence over economic relations between buyers and sellers determined by price. Even in the area of exports, this is not an anonymous market where there is only very limited contact between players. On the contrary some of the small firms in this research go to considerable lengths to establish close links with foreign firms (such as requiring their own export agents to spend more than half their working time abroad) in order to ensure that there is a solidity behind the inter-firm relationship. This is often also a requirement of the distributor, who solicit the presence of the principal (see Firm L in section 7.5), with the objective of building closer ties. Therefore embeddedness, in the context of these SMEs, has been shown to be a concept that can be applied to relationships with suppliers and distributors outside France.

The reference to close ties leads into a discussion of network theory and Granovetter's 1973 article titled "the Strength of Weak Ties". This research, like that of Jack (2005), gives support to a nuanced interpretation to Granovetter's thesis of the general usefulness of weak ties for SMEs. If we take the example of finding new reliable foreign distributors: we could propose statutory or regional bodies as weak ties and known managers in other SMEs in the sector as strong ties. Overwhelmingly, firms reported that they will prefer the advice or recommendation of a fellow SME manager (probably a strong tie) on the subject of a potential contact over that of an advisory regional body (probably a weak tie). Granovetter argued that weak ties are more likely to give access to new contacts and new information than strong ties, that recycle the same information in the same known circles. However what this research has shown is that the piece of new information held by a strong tie (for example about a reliable foreign distributor in Thailand) will be seen as more valuable than that of an advisory regional body. The most reliable source for market information for these SMEs would usually be a manager in another similar firm in the same sector who is well known to the focal SME. The research suggests that the confidence in this source is not only because the manager is well known and a strong tie, but also because the manager has concrete experience of working with the agent in the same way as the focal firm aims to. Therefore, for SMEs, those strong ties that operate in similarly structured supply chains in the same sector and face similar

challenges are the most trusted sources of information. Shared experience leads to mutual trust.

This research confirms that networks are an invaluable source of information, knowledge and exchange. The tendency and risk of networks to cluster around known contacts was also found as the Purchasing Manager of Firm A, for example, cited the extent to which Directors and senior managers in firms in the sector were over-embedded in long standing relationships with suppliers – a phenomenon which could jeopardise access to the best price or the latest technology. On the other hand under-embeddedness, the lack of reliance on local contacts and the perception of these potential sources of assistance as competitors led to a high risk strategy for an SME of internationalisation at all costs, FDI in sites in distant countries and an over extension of limited resources.

Fourthly power asymmetries in the supply chain, both on the upstream and downstream sides were shown to be of primary importance to the success or failure of an SME's internationalisation. Successful SMEs understand the nature of the market, assess the different players and position themselves strategically in relation to larger firms. Without this appreciation of who to partner, in what form and in which country, errors could easily be made. This appears to support Cox's assertion (1999) that supply chains are areas of contestation, and not collaboration, for small firms, since larger distributors are either trying to capture value or not prioritizing the sale of the SME's product; larger suppliers are not prioritizing the SME as a customer because the SME represents a small percentage of the supplier's turnover and larger partners or potential partners are seeking to capture technological expertise or the value-added of the SME. The only 'safe' partner for an SME is one at a similar stage of development and professionalism, of a similar size, but with a different product speciality. The close working relationships that exist between Firms A, D, I and O are evidence of the accuracy of this analysis. This indicates that, for an SME, on the vertical axis, supply chains are sites of conflict, laden with power differentials, and that they can be rendered more manageable by collaboration with similar firms on the horizontal axis in what can be termed an informal network form of governance: such networks, then, perform the role of a counterweight to power asymmetries on the vertical axis.

Finally governance theory (Stock, 2000) allows us to consider how the supply chain is organised and certain forms are presented as more appropriate in certain conditions. For

example in the case of spot purchasing a market form of governance will be preferred, whereas in the case of a large multinational, such as Firm M (see section 5.3.1) and its foreign distributors, then a hierarchical form of governance is preferred, since these distributors are wholly integrated within Firm M's organisation. Such integration does not guarantee trouble-free intra-firm communication with distributors in different countries and similarly, formalized network governance (alliances in Table 8.4), as shown in the experience of Firm L with a distributor in China (see section 6.4), does not eliminate the risks of exploitation and malfeasance. The most successful SMEs were those that adopted informal network governance arrangements (the "Internationalists" in subsection 8.3.1). These companies assisted each other in global markets, were of a similar size but different product speciality and in certain cases entered into ad hoc partnerships with larger firms in specific markets. Supply chain governance theory, therefore, is a useful tool for analysing the way in which SMEs organize and manage their relationships with suppliers, distributors and manufacturers. The research indicates that informal networks are more appropriate for SMEs than hierarchical integration of distributors/suppliers or formalized partnerships, mergers or takeovers. The reasons for this are developed in Chapter 9 which contains a theoretical contribution to knowledge.

8.9. Conclusion

This chapter has drawn together the disparate elements of the thesis and advanced thinking about SMEs and global supply chains in a number of ways. Firstly the governance, control and power (GCP) model conceptualized the global supply chain challenges that SMEs face into managing relationships and managing material flows. Secondly six propositions, emerging from the research, were presented and discussed in detail, based on these themes of governance, control and power. Thirdly the core category of the research of recognition, taken from political theory, was presented as: 'one plausible explanation of what is going on'. It is clear that recognition is both pervasive and sought, but often only partial and unsatisfactory. This opaque quality, described as a 'chimera', has not deterred the modern digital world from according recognition a central role. Recognition is part of a political process that sees groups seek to establish their place in society. It is the struggle for recognition that is significant, rather than the actual acquisition, which may be elusive. SMEs in the business world often express a sense of being marginalized and excluded; of trying to raise their profile and make their voice heard.

In considering the importance for SMEs of recognition in global supply chains, a hierarchy of perceived value was presented with visibility of partners as the basis and recognition as the goal. The link between the demand for recognition and powerlessness was established. Concrete examples of the overt and indirect ways in which power is exercised in supply chains by large firms were presented. Political theory showed that this exercise of power has been justified in terms of consequentialist morality. The question was raised as to whether large firms would justify their dominance over small firms in the same way as Machiavelli justified the dominance of the city state over smaller satellite states and if so, in whose interests do they act? The discussion then returned to the SME perspective and the question of how, in a context of power differentials, SMEs can achieve successful inter-organisational relationships. The notion of fit was introduced: SMEs need to achieve fit on the three criteria of governance, control and power, in line with the GCP model. The importance of studies of small firms, as major sites for innovation, contribution to the economy and social value, was highlighted. The research validity was discussed and the relevance of the original theoretical framework, given the research findings, was also considered.

Chapter 9: Conclusion

The original research question was: how do French SMEs in the agricultural machinery sector manage their global supply chains? The answer to this question is that while there are similarities in the challenges faced (competitive markets, global customers and suppliers), the responses are different and these are encapsulated in the Governance, Control and Power (GCP) model: firms position themselves differently and adopt different strategies in these three categories for a variety of reasons, as has been shown in detail in chapters 5, 6, 7 and 8. The broad and open research question is likely to provide a complex answer, although the GCP model manages to represent the responses and priorities of SMEs in this sector. It has been established that relationships are essential for SMEs (Fuller and Lewis, 2002). This thesis applies this analysis to a supply chain setting to show that how SMEs organize these relationships (governance) and how they position themselves in relation to more powerful players are central. In addition gaining control of logistic flows, developing critical assets and professionalization are essential for success in managing global supply chains.

This thesis has made a considerable contribution in a number of areas. Firstly, by studying SCM in SMEs from the perspective of the managers involved, it has been possible to see SCM not only as a technical exercise for the optimization of flows, but also as the management of a series of relationships across countries and cultures. Secondly, the focus on SMEs that are final assemblers of industrial equipment within a particular sector and a particular region has enabled a deep contextualized knowledge to be developed, which has led to theory building (Strauss and Corbin, 1998). Thirdly, a good representation of firms and managers across the agricultural machinery sector has been achieved. Managers involved in upstream and downstream flows and internal organisation have participated and firms of different sizes with different product types were interviewed. This has added to the scope and reliability of the findings.

Fourthly, this thesis has applied political theory to supply chain management to shed light on the question of power in inter-firm relationships and has shown how SMEs experience and react to power differentials. A further innovative aspect of the theorizing in chapter 8 is to extend the concept of visibility in supply chains to include the demand for recognition as a key priority for SMEs. One of the roles of qualitative research is to assist in the process of

developing “emergent concepts into measurable constructs” (Gioia et al., 2012, p.25) for the potential use of quantitative researchers and these advances can be seen in this light.

Finally, an innovative three stage qualitative research methodology has been used which employed grounded theory techniques in the second explanatory stage. The grounded theory method, still relatively unusual in SCM research, allowed ideas to emerge from the mass of interview data collected. In particular the methods of coding, categorizing and grouping have produced the GCP model and the core category of recognition. This thesis has shown a progression through the different chapters towards the propositions and theorizing presented in chapter 8. This theorizing represents logical and plausible explanations for the research findings outlined in chapters 5, 6 and 7 and furthermore marries these findings with the context and literature of chapters 2 and 3. The whole is therefore a coherent and detailed presentation of research into a specific industrial sector, which extends into a more generalized analysis of SMEs and global supply chains.

The question of the generalizability of the research findings to other contexts was addressed in sub-chapter 4.3, but, given its importance, is worth returning to. Yin points out that: “...findings from a single case study nevertheless can be generalized to a broad variety of other situations” (Yin, 2014, p42). Clearly it would be easier to generalize these findings to a similar industrial sector with a similar market than, for example, the context of born global SMEs in the service sector. However the complexity of this subject is illustrated by the fact that some aspects of the research are more generalizable than others. For example the OECD research (2008) showed the common priorities of European SMEs in terms of internationalization. On the other hand issues concerning relationships with Chinese distribution agents will be shared by some, but by no means all, manufacturing SMEs. Nonetheless these potential limitations should not distract from the possible generalizable insights that the research may be able to contribute.

The remainder of this chapter is organized in the following way. In 9.1 a contribution to theory is presented. In 9.2 the implications for SME Management are considered. In 9.3 the policy implications are addressed. In 9.4 the research limitations and future research possibilities are outlined and finally a conclusion is made.

9.1. A contribution to theory

This research has focused on SME inter-firm relationships and asked the question how SMEs manage their global supply chains. Sweeney et al. (2015) argued that supply chain relationships are one of the four fundamentals of supply chain management, along with the setting of SCM objectives, the SCM philosophy of integration and managing supply chain flows. As one of the four fundamentals, it is therefore valid to carry out research into them in the context of SMEs. In section 8 of the previous chapter the relevance of existing theory (as initially presented in Chapter 3) to this area of study was discussed. The conclusion that can be drawn is that when it comes to the question of SME global supply chain relationships governance theory, the role of networks and power are more pertinent than transaction cost and agency theory. Why is this so? Essentially the reason for this relates to the assumptions about individuals and societies that underpin these theories. Both theories originate from economics and for both theories opportunism, maximizing self-interest and the search for gain and advantage characterize human behaviour. The critique of this classical approach, that sees bartering, negotiating over price and seeking to gain an advantage over the buyer or seller as a natural and predominant human activity, was made by Polanyi (1944, p258) more than 70 years ago: “The tendency to barter, on which Adam Smith so confidently relied for his picture of primitive man, is not a common tendency of the human being in his economic activities, but a most infrequent one”. Graeber (2014, p34), from the perspective of anthropology, describes how barter is only used in circumstances where no relationship exists, nor is likely to evolve: “Swapping one thing for another while trying to get the best deal one can out of the transaction is, ordinarily, how one deals with people one doesn’t care about and doesn’t expect to see again”. These are just two examples of a body of knowledge that has emerged in sociology, anthropology and social economics, which places in doubt the notion of rational man, acting in his own interest and opportunistically, as proposed by classical economics and on which are based, for example, transaction cost and agency theory.

Another picture emerges from this research which takes as its starting point the individual in society. And it is precisely this focus on the individual in a firm and in a network that is important here in a study of SMEs, because, as has been shown in this thesis, the purchasing, procurement or export function in these firms is usually carried out by one or two people or at the maximum a very small team. In many of the firms studied, purchasing and procurement was carried out by one and the same person.

If an approach to human economic activity which sees buyers and sellers as potentially or actually opportunistic and self-interested is taken, then solutions will be found in contractualisation, building monitoring and evaluation systems, self-protection and guarding against exploitation. In this research with one or two exceptions, no SME managers took this perspective and one, in particular, railed against it (Export Manager, Firm I, Chapter 6.3.2). Part of the quote from this manager is worth repeating: *“We are not in a game of competition with our importers. We help each one to develop their network. We are not really in this evaluation logic, in fact”*.

Therefore the supply chain relationships that exist between these SMEs and key distributors and suppliers in foreign countries cannot be based on market governance forms, which are appropriate in circumstances of spot purchasing. Instead informal network forms of governance were evident and these loose non-contractual networks are built and nurtured over a period of time. The SME managers rely on individual contact with known and trusted interlocutors who understand fully the SME’s activity, so that on the downstream side, foreign distributors can act effectively on behalf of the SME in dealings with final customers and on the upstream side global suppliers can respond to the SME’s requirements. To expand on this, the research shows that this approach to organizing inter-firm relationships for SMEs exists for a number of reasons:

Firstly, limited internal human and financial resources require maximum use to be made of the external resource of professional networks at zero cost. Trying to control supply chain partners through contractualising and monitoring or internalizing in the hierarchy geographically disparate distributors or suppliers is not an option, in circumstances where there is one manager dealing with a global market.

Secondly power asymmetries in the supply chain necessitate a strategic wariness of more powerful players and sophisticated market knowledge about opportunities and potential threats. For an SME manager this can be best achieved through sharing information with managers in similar sized firms who equally have an interest in receiving up to date information and staying abreast of market developments.

Thirdly the alternative of a formalized relationship, merger or takeover by a larger global partner brings additional resources but, as was shown in the cases of firm F, can also bring a

loss of autonomy and new obligations and, as in the case of firm L, does not necessarily bring extra assistance with internationalization.

Here it can be suggested that informal networks of small firms serve as a counterweight to the power exercised by dominant firms in a given supply chain. In the physical sciences, counterweights restore balance to a system that otherwise would not function. For example, without a counterweight a crane would not be able to safely displace a heavy load. The pertinent research questions, then, become whether supply chains, in which power is unequally distributed between firms require counterweights, in whatever form, in order to function and whether an attempt by SMEs to constitute a counterweight to power imbalances, through for example the use of informal networks, are an effective redress or simply a measure for self-preservation.

9.2. Implications for SME management

While different strategic choices by firms in the same sector are to be expected (Coe and Yeung, 2015), this thesis has shown that for manufacturing SMEs there are a number of strategies in relation to the management of global supply chains that are more successful than others. As noted in sub-chapter 6.3.1 finding foreign representatives and distributors was ranked as the main concern of SMEs in the global marketplace in a survey of almost 1000 European SMEs (OECD, 2008). The key question, then, is what sources SMEs use to find reliable contacts. The research has identified five different sources, each of which plays a different role. Firstly SMEs tend to rely on their own network of contacts amongst other companies in the same sector to obtain information about potential contacts in foreign countries. Several firms reported that this was the most reliable source of information.

Secondly, the professionals in non-firm institutions advocated the role of regional and state institutions who could propose contacts but who clearly had not carried out daily business with them. The SMEs regarded this source as useful initially, but were generally reluctant to rely entirely on it and in some cases had evidence that this advice had not been reliable. Thirdly all firms reported the importance of attending Trade Fairs to see and be seen and as a place for encountering existing contacts and making new ones. Fourthly a number of SMEs explained that they took a passive approach to prospection and waited for foreign distributors to approach them. They saw the initiative coming from the distributor as part of a low or no risk strategy, which would also include the agent taking all the risk of transport and customs

procedures on an ex-works basis. Finally the Internet is used for initial searches of agents in foreign countries and also as a means for agents to find the specialist SME. For SME managers this suggests that a range of sources of information can be employed, but that probably the most reliable is that of existing well-known contacts.

The most successful SMEs in the area of exports all stressed the importance of the development of relationships with foreign dealerships over the long term. From the perspective of the final customer this offers a guarantee of service into the future. In order to achieve this win-win relationship the correct choice of partner from the outset is essential and also the SME needs to commit resources so that their representative is present to aid and advise the dealership on the correct use of the machine and after sales service: the more complex the machinery, the greater the need for this presence on the ground. Furthermore the role of the Director is essential in raising the profile of the SME abroad at Trade Fairs and other events. The key lesson for SMEs is that international success is only obtained if presence in foreign markets is assured with the objective of recognition of the quality of both product and service. Such a presence requires the commitment of resources to build relationships with foreign distributors.

In terms of networking it was noted during the research that collaboration and exchange of information between firms of a similar size and status produced the best results: the benefits of a 'birds of a feather flock together' approach. These were manufacturers of complementary but not competitive material.

Global sourcing usually related to low value added, high volume and standard parts for SMEs in the research, though on some occasions this had been found to produce difficulties in terms of quality and delay. One solution was to employ European intermediaries to control quality and thus push the risk upstream, while still securing cost savings. Several purchasing managers also reported participating in regional purchasing groups which actively share information on best practice.

Clearly a balance needs to be struck in the make or buy decision, but it should be noted that the more successful firms fell into two categories. Either they had completely reworked their internal logistic flows and organisation in projects that had lasted more than a year and involved consultants or they had pursued a subcontracting strategy for most specialist and

standard parts and they had retained the critical assets of design, innovation and final assembly. Those firms which emphasized keeping and developing internal capacity were smaller in size.

The strategy of SMEs in relation to larger firms both on the upstream and downstream has been shown to be highly significant. One SME that had been taken over by a larger foreign company reported quality problems in parts supplied from this firm (Firm F). Another could give little evidence of what had been gained from a takeover by a foreign firm (Firm L). Whereas, for another SME, a country specific targeted partnership with a larger firm had proved successful (Firm A). Another reported successfully working with a larger complementary firm in foreign markets (Firm L). Doing business with larger suppliers was generally reported as high risk and to be avoided, wherever possible. On the downstream side the monopolization that a large firm exercises over a distributor renders the promotion of an SME's machinery much more difficult, especially in a competitive market. Ways need to be found to manage these asymmetries in the interests of small firms. These would include a fail-safe position of keeping large firms at a distance and only working with those that complement an SME's product and enhance its reputation. A 'wariness' strategy, put in place by the most successful SMEs (the internationalists in Table 8.4), appeared to pay dividends.

Finally it should be noted that within the sector of agricultural machinery final assemblers there were variations resulting from the nature of the market. Manufacturers of trailers were in much more competitive markets than manufacturers of the more specialized seed drill machines. This has implications for power and relationships in the supply chain, as the research has shown and which firms need to be fully aware of. This relates to the phenomenon of barriers to entry. SMEs in sectors with a low barrier to entry will experience a keener struggle for market share and will be in a relatively weak position, in relation to larger upstream and downstream partners, than those firms in high barriers to entry sectors. This has implications for strategy and raises questions of whether diversification, increased specialisation or moving into higher value adding processes and products should be considered for those firms located in low barriers to entry sectors.

9.3. Policy implications

The research found that there was a clear difference between those larger SMEs with more than 150 employees and those with fewer. The larger ones had newly constructed purpose-

built sites, professional logistic processes, incorporated design considerations into purchasing, networked with similar-sized firms and sought specialist, technically advanced suppliers internationally. Smaller SMEs had more craft-based systems, sometimes admitted a lack of control over stock levels, combined procurement and purchasing in one person and favoured long-standing relations with suppliers. These differences indicate that there could be a shift in level from a craft-based to a more professional organisation that takes place at a certain size. Given the relative underperformance of French SMEs internationally, compared to their larger counterparts and their German equivalents, from a policy perspective it would be useful to identify potential SMEs capable of making a shift in level and providing appropriate assistance, which would include a professionalization of processes and a strategic focus on critical assets.

Some firms demonstrated a hesitation and passivity with regard to internationalisation which led them to minimize prospection, use exclusively the ex-works incoterm and thereby to give up control of the downstream global supply chain. The main reason for this was a lack of in-house competences in the area of international trade and what was described as a '*panic*' when it comes to communicating in English with potential customers. In policy terms there is clearly a need both to up skill existing SME administrative staff in international trade and to make sure that students currently being trained in these areas are actively encouraged to take up posts in small and medium sized firms, rather than limiting their search to larger firms.

The IRSTEA (2014) report into the French agricultural machinery sector indicates that relative to other mechanical sectors, this sector has received considerable help from statutory and regional bodies (UBIFRANCE, BPI, COFACE) in terms of accompaniment of individual firms and collective operations, such as assistance with Trade Fairs. It might therefore appear surprising that most firms downplayed the importance of this service or saw it as only helpful at the initial stages of internationalization. In terms of organisation of firms in this sector, while markets in emerging countries for agricultural machinery undoubtedly exist and are growing, the IRSTEA report notes: "The difficulty of the sector to organise itself collectively to invest in external markets" and the problem of "a fragmented French offer". Finally the report concludes that: "the difficulties linked to investment in foreign markets requires a collective strategy by the different companies, which would allow them to pool human

resources and reduce risk taking by individual firms”¹⁷ (2014, p.37). Some examples of such a pooling of resources were found in the research, but the traditional suspicion of other firms was clearly expressed by the comment of one Director: “It’s every man for himself in the agricultural machinery industry”. Changing this mentality is perhaps a generational issue, but is also the responsibility of the industry-wide lobby group, AXEMA.

This research has shown that for SMEs, their positioning in relation to larger firms and in particular what could be termed, a strategic wariness, is essential. In policy terms this has implications for small firm lobby groups and for regional, national and supranational bodies that supervise and regulate competition practices. Viewing supply chains as sites for the exercise of power rather than reified circuits for flow optimization enables the unfair and excluding practices of large firms to be highlighted. If policy makers seek to advance the interests of small firms, then attention needs to be focused on the different practices of large firms in supply chains.

If policy makers seek to advance the interests of small firms, then attention needs to be focused on the way in which they can be helped to help themselves. Primarily this involves facilitating the creation of informal and formal groups of firms and managers to share information and knowledge. Bretagne Supply Chain (BSC), based in Rennes, is a very good example of such a non-statutory body that performs exactly this function of providing a platform for the exchange of supply chain best practice. The fact that BSC won an award in 2016 from the French Chambers of Commerce is a confirmation of the value and importance of its network-building and information-sharing work.

9.4. Research limitations and future research possibilities

A number of shortcomings can be identified about this research. Firstly the focus of the study is on a single industry in a single region and in a single country. This raises questions about the generalisation or transferability of findings to other industries, as discussed in Chapter 8.7.

¹⁷ Translated from : « la difficulté de la filière à s’organiser collectivement pour investir les marchés extérieurs » and « une offre française fragmentée » and « les difficultés liées à l’investissements des marchés étrangers nécessitent une stratégie collective de la part des différentes entreprises, qui leur permettrait notamment de mutualiser les moyens humains et de diminuer la prise de risque de chacun ».

Secondly in stages one and two of the research the data were gathered from single respondents, which might result in possible response bias. (In stage 3 an attempt was made to address this issue by, wherever possible, interviewing pairs of respondents.) Thirdly all of the interviews with managers were with professionals in lead firms and final assemblers in the chain. No interviews were carried out with suppliers or distributors (national or foreign), nor with any end users (farmers) which would have added a 'supply chain' perspective to the research. Finally other data collection methods, such as longitudinal focus groups, which could consider in more depth the experience of specific firms or groups of managers from different firms, would be a valuable complementary approach to individual interviews.

This study has advanced knowledge of the challenges facing manufacturing SMEs in the management of global supply chain relationships in the sector of agricultural machinery in France and, in the near future it would be logical to continue this line of research in the following ways. Firstly it would be interesting to maintain the same focus on global supply chain relationships and include other manufacturing SMEs from different sectors of activities in north-west France, in conjunction with Bretagne Commerce International (BCI), the regional body for assisting Breton firms internationally. This research will focus on the extent to which regional inter-firm solidarity is used by SMEs to overcome hesitations about global suppliers and customers. This is already underway.

Secondly a cross-cultural study with UK manufacturing SMEs (or those of another country) to see whether there are different country-specific practices in relation to global supply chains and whether they are significant. For example, if we take the five sources of information about possible foreign contacts listed in section 9.1 of this chapter, to what extent are there differences between countries in the priorities given to each and for what reason.

Thirdly, as part of the first two future research options, it would be interesting to concentrate more on the impact of social media, the internet and new technology on the creation and maintenance of relationships in SME global supply chains. To what extent do these tools of modern communication assist the search for and contact with reliable global suppliers and distributors and replace existing structures for sources of information, such as local firm-based networks or non-firm institutions? Do modern communication technologies facilitate or complicate the management of SME global supply chains? What is their impact?

Fourthly the role of informal networks as a counterweight to power asymmetries in SME global supply chains could be examined by, for example, researching the characteristics and functions of informal groupings of small suppliers in the agri-food sector. To what extent do they manage to offset the power of oligopolistic supermarket chains? What is the scope and effectiveness of these networks in redressing the balance? Are more formal structures more effective than informal ones?”

Finally at the level of theorizing, it would be interesting to continue with the application of ideas from political theory to the study of power in SME / large firm relationships: to study the specific ways in which power is exercised between firms. In particular testing empirically the notion of recognition, perhaps even with quantitative research methods, would enable the validity of the concept to be examined. This would test the appropriateness of the core category, selected to answer the question of what the research is about.

9.5. General Conclusion

To conclude this thesis it is useful to return to the importance of this question of the internationalization of SMEs in the context of the French industrial economy, as outlined in sub-chapter 2.3. While the French president has recently claimed that things are getting better, other commentators are less optimistic and focus in particular on the balance of payments deficit:

“First of all the industrial fabric is so degraded, so full of holes, that France imports more and more of everything. Every rise in consumption, increases the deficit alarmingly [...] No sector is safe any longer. Perhaps this is inevitable, since modern economies are interwoven, manufacturing chains are divided into parts, made of return trips, import and export, and what counts is the valued added in France. But the figures are not reassuring [...] France is not regaining any market share. Patrick Artus, of Natixis, refers to ‘*a contraction of the export sector*’. Fewer and fewer companies export. Either they offshore to produce in foreign markets [...] or they give up completely, which is worse [...] Is the French economy disengaging from the world economy?”¹⁸ (Les Echos, 2016d)

¹⁸ Translated from : « D’abord le tissu industriel est si dégradé, si plein de trous, que la France importe de plus en plus de tout. Toute hausse de la consommation creuse le déficit de façon alarmante [...] Aucun secteur n’est plus « tenu ». Peut-être est-ce inévitable, les économies modernes sont imbriqués, les chaînes de fabrication sont

The above quote illustrates that concerns exist about the lack of engagement of French firms globally. Leaving aside questions about the competitiveness of the French economy, labour market rigidities and ‘supply side’ economics, this thesis makes a small contribution to this debate about industrial firms in the global marketplace by focusing on how they enter and manage supply chains and what strategies they employ to overcome challenges.

The thesis began with an excerpt from Zola’s book ‘the Earth’ which described nineteenth century farming methods and a densely populated landscape. In contrast an apt, though apocalyptic, image to end the thesis is from the opening scenes of the 2015 Hollywood futuristic film ‘Interstellar’: enormous, self-driving agricultural machines controlled by smartphone, against a background of a violent dust storm and an earth ravaged by climate change.

This image, when related to that of Zola, conveys the dramatic transformation in the last 150 years of the rural landscape and of agricultural machinery, itself. Just as the machinery used in agriculture has changed, so too have the firms that assemble these machines. As a result of globalisation and the opening up of markets, there has been a concentration in the sector and a threat to the survival of both large and small firms. Sub-chapter 2.5 described the disappearance of large, family-based, paternalistic, traditional firms in the sector in the face of rapid changes in the global market. The small firms that have been the focus of this study survived these changes and, to varying degrees, they now find themselves engaged in supplier and customer relationships internationally, in order to expand sales and take advantage of lower sourcing costs. The transition from predominantly local to increasingly global connections has been accompanied by evolving power asymmetries. As manufacturing SMEs expand onto the global stage, relationships wax and wane, resulting in new inter-firm arrangements to be negotiated.

désossées, faites d’allers-retours, d’import-export, et ce qui compte est la valeur ajoutée opérée en France. Mais les chiffres ne sont pas rassurants [...] La France ne regagne encore aucun part de marché. Patrick Artus, de Natixis, évoque une « *contraction du secteur exportateur* ». De moins en moins d’entreprises exportent. Soit elles délocalisent pour produire sur les marchés étrangers [...] Soit elles renoncent, ce qui est pire [...] L’économie française se désengage-t-elle de l’économie mondiale ? »

Recent years have seen a consolidation of the sector and more congested European markets. The near future is likely to see these trends continue. New markets for agricultural machinery are opening up (Africa, in particular) and to take advantage of these possibilities, SMEs in France would need to actively collaborate and pool resources. Secondly they would need to gain control of logistic flows and professionalize processes. And finally they would need to think strategically about how they position themselves in relation to larger and similar sized firms, as has been detailed in this thesis. These remarks demonstrate the importance and relevance of the Governance, Control and Power (GCP) model, which has emerged during this research and which highlights the main priorities for manufacturing SMEs in seeking to effectively manage their global supply chains.

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Appendix I. Agricultural machinery manufacturers in north-west France in Research programme, 2013 - 16.

Firm code	Location	Turnover	% export	Staff	Main product	Interviewee	Stage 1 interview date	Stage 2 interview date	Stage 3 interview date
Firm A	35	42m€	30%	200	Seed drill machines	Logistics Manager	24.4.13		
						Export Director	5.4.13		5.10.15
						Purchasing Manager	5.4.13	19.2.15	
						Sales Manager			5.10.15
Firm B	29	28m€	32%	120	Slurry spreaders	Director	24.5.13		
Firm C	29	36m€	22%	205	Trailers	Export Manager	24.5.13		
						Sales Assistant	24.5.13		
						UK f/t Agent		8.4.16	
Firm D	35	18m€	30%	115	Muck spreaders	Export Manager	25.6.13	15.4.16	
						Purchasing Manager	25.6.13		
Firm E	85	25m€	30%	75	Corn Pickers	Export Manager	1.4.14		
						Purchasing Manager	1.4.14		
Firm F	44	12m€	50%	50	Soil looseners	Logistics Manager	1.4.14	20.1.15	
Firm G	44	17m€	0%	120	Trailers	Purchasing Manager		19.11.14	
Firm H	85	8m€	38%	50	Trailers	Purchasing Manager		5.12.14	
Firm I	79	n.d.	65%	250	Seed drill machines	Export Manager		9.2.15	
Firm J	53	20m€	3%	120	Buckets/Excavators	Purchasing Manager		2.2.15	
Firm K	85	11m€	8%	80	Soil preparation	Purchasing Manager		24.2.15	
Firm L	56	13m€	12%	90	Livestock equipment	Export Manager		15.4.15	5.10.15
									(continued overleaf)

Appendix I (cont.)

Firm code	Location	Turnover	% export	Staff	Main product	Interviewee	Stage 1 interview date	Stage 2 interview date	Stage 3 interview date
Larger agricultural machinery manufacturers									
Firm M	72	773m€	82%	980	Tractors	Procurement Manager	7.2.14		
						Export Manager	27.2.15		
Firm N	44	131m€	75%	360	Ploughs	Supply Chain Director	10.2.14		
						Purchasing Manager	10.2.14		
Firm O	35	78m€	21%	430	Loaders	Supply Chain Director	7.11.14		
						Logistics Manager	1.7.14		
Institutional sector									
Bretagne Supply Chain	35					Isabelle Gimmig			20.10.15
						Elodie Le Provost			20.10.15
Cercle des Exportateurs	35					Martine Huitema			5.2.16
World Trade Centre	35					Anne Leseur			6.11.15
Historians/Specialists									
	44					Christian Bouvet	17.5.14		
	35					Emile Lahaye	11.1.16		
							19 interviewees	10 interviewees	7 interviewees
								TOTAL	36 interviewees

Appendix II. Stage 1 Exploratory questions

Questions about relations with suppliers:

1. How many suppliers does your company have and what percentage of these suppliers is based in France?
2. In which countries are the foreign suppliers located and what components do they supply?
3. Are foreign suppliers an important area for your company?
4. Has there been a significant change in recent years in terms of the percentage of suppliers in France and abroad? If yes, for what reasons?
5. What means do you use to find suppliers abroad? On what factors do you base decisions about sourcing?
6. How do you decide to make or buy?
7. What improvements to the upstream supply chain would you like to put in place?

Questions about relations with distributors:

1. For what reason and how did the process of internationalization begin in your company?
2. What has been the role of your contacts and links in the process of internationalization?
3. What have been the lessons that your company has learned during the process of internationalization? Have there been any bad experiences?
4. How have sales changed and what has been the split between domestic and international sales?
5. How is your international activity organized? Do you use import companies?
6. How is the international transport and logistics organized?
7. What improvements to the downstream supply chain would you like to put in place?

Appendix III. Stage 2 Explanatory questions

1. Where do you get your information about foreign suppliers and agents from?
2. How do you decide if a foreign supplier or agent is too risky?
3. Which source of information about a foreign supplier/agent would you trust the most?
Why do you trust x and not y?
4. What action do you take to be sure that a foreign agent/supplier provides you with a good service? How could this be improved?
5. How important is it for your company to be in contact with other companies/networks to share and exchange information about global sourcing/distribution/marketing?
Why/Why not?
6. Is it important for your company to have strong ties with your suppliers/agents in general? Why/Why not?
7. Thinking of your business partners, with whom do you have strong and reliable business contacts?
8. How important is innovation to your company and where do the ideas for innovation come from? Are your partners (customers and suppliers) involved in this process of innovation?
9. With which foreign suppliers/agents are your relationships most problematic and for what reasons? Do you tend to change your suppliers/agents regularly?
10. Is there a trend to carry out manufacturing activities internally or to subcontract? For what reasons and in what situations?

Appendix IV Example of initial coding of an interview extract.

Initial codes	Interview extract
Very close network around Rennes	<p>T.C. : Pour commencer première question: où trouvez-vous les informations sur les fournisseurs ?</p> <p>V.R.: Lorsque je recherche quelqu'un de nouveau ?</p> <p>T.C.: Oui. Lorsque vous cherchez un nouveau fournisseur.</p> <p>V. Le premier reflex va être essentiellement Internet. Internet a énormément changé la vie des acheteurs. Ça permet de trouver beaucoup plus facilement des gens qui sont en mesures de répondre à la prestation qu'on recherche. On est énormément sollicité aussi par des commerciaux de tout bord. Donc soit par des e-mails, soit par des demandes de rendez-vous sur notre site. Ce qui participe aussi à la recherche dans certains cas et puis on a des salons qui sont organisés. Soit des salons de sous-traitants, soit comme il va y en avoir un à partir de samedi sur Paris. Des salons de présentation de machines agricoles sur lesquels on va regarder ce qui se fait chez nos confrères. Sur lesquels on va retrouver en plus des stands des fabricants. On va trouver quelques stands de grossistes.</p> <p>T.C.: Est-ce que c'est pareil pour la recherche de fournisseur en France qu'à l'étranger ?</p> <p>V.R.: Globalement oui. On procède de la même manière. Après il y a une dernière chose qui peut nous permet de trouver des fournisseurs. C'est les relations qu'on peut avoir avec d'autres acheteurs. Dans le machinisme agricole. Il y a dans la région autour de Rennes on a vraiment un réseau très resserré. Tous les patrons du machinisme agricole se connaisse et se voit régulièrement, échange régulièrement sur leurs méthodes de travail, leur fournisseurs. Moi j'ai été amené à rencontrer des acheteurs des autres entreprises environnantes. C'est souvent l'occasion d'évoquer une problématique commune, savoir avec qui le constructeur d'à côté travaille, est-ce qu'il est satisfait ou pas de tel fournisseur ? Il y a énormément d'échanges entre les différentes entreprises.</p> <p>T.C.: Quand vous dites que vous étés amenés à rencontrer, ça veut dire que vous avez été invité par votre patron à rencontrer les acheteurs d'autres entreprises ?</p> <p>V.R.: Oui. En fait dans le cas d'une visite on peut être invité par la direction. Lorsqu'un nos confrères vient nous visiter, on est informé par la direction et on essaie de se rencontrer. On a aussi des groupements d'achats qui nous permettent de rencontrer de temps en temps.</p>
Grouping of purchasers in the region	<p>T.C.: Le groupement d'achats est juste pour les entreprises dans le machinisme agricole ou c'est des entreprises de métallurgie en général ?</p> <p>V.R.: Par exemple il y a Achats ** qui regroupe des acheteurs de tous bords. Pas forcément dans le machinisme agricole. Pas forcément dans la métallurgie. Mais des acheteurs qui sont dans la région qui veulent trouver des fournisseurs plutôt dans la région également. De temps en temps il suffit de trouver d'autres acheteurs qui ont à peu près les mêmes problématiques pour qu'on puisse partager sur des sujets qui nous concernent.</p>
Shouldn't give information to direct competitors	<p>T.C.: C'est où exactement la limite, dans le sens est-ce que vous allez échanger avec un concurrent direct par exemple ?</p> <p>V.R. : Moi, j'essaie dans la mesure du possible de ne pas faire justement. Je sais que la direction ici partage beaucoup avec ses concurrents directs. Moi j'estime qu'on est là pour faire la différence par rapport à nos collègues et que par conséquent je n'ai pas à donner des informations à quelqu'un qui pourrait me concurrencer sur le produit fini. Je me donne cette limite-là. Après ça dépende. Moi je viens de l'automobile et dans l'automobile c'est strictement interdit.</p> <p>T.C.: Mais pour la direction c'est moins grave d'échanger avec des concurrents ?</p> <p>V.R.: Il y a juste une seule limite. S'ils sont des concurrents du machinisme</p>

<p>Don't give information to big competitors</p>	<p>agricole, on fonctionne avec eux. Si ceux sont des concurrents, des gens qui font des produits très proches de ce qu'on fait, mais qui ne nous concurrencent pas directement, là on est assez transparent. Si on est avec des concurrents vraiment direct soit on ne communique pas soit on communique mais vraiment avec parcimonie. On essaie vraiment de trier les informations on va donner. T.C.: Où est la limite dans l'autre sens ? Si vous êtes assez transparents, vous allez jusqu'à quel point pour échanger ? Quel type de données ? V.R.: Moi dans l'autre sens j'aurai tendance à ne pas donner beaucoup d'information. T.C.: Donc vous parlez juste en général ou vous donnez votre avis sur un fournisseur ? V.R.: Pour l'instant je n'ai pas eu le cas. C'est vrai que je suis assez réticent. Si nous on doit nous dissocier, doit se démarquer de nos concurrents, qui sont en plus beaucoup plus gros que nous. Si on leur donne nos bonnes informations... T.C.: Mais vous êtes prêts à échanger globalement sur tel ou tel fournisseur avec un autre entreprise dans le même secteur ? V.R.: Ah oui. Il y a aucun souci. L'objectif c'est vraiment que chacun s'y retrouve. A partir du moment où les fournisseurs ne sont pas des concurrents directs. J'ai besoin d'info, ils ont besoin d'info. Il faut cibler le plus vite un fournisseur bon. C'est vrai qu'on peut faire des audits. On peut rencontrer les gens, rencontrer les patrons d'entreprises, rencontrer les commerciaux. Mais c'est toujours intéressant d'avoir un feedback de quelqu'un qui travaille avec ce même fournisseur depuis un moment. C'est toujours intéressant de savoir quelles sont les attentes des gens que vous questionnez, parce que les gens qui travaillent avec un fournisseur peuvent le trouver mauvais, mais vous vous allez le trouver bon parce que vous n'avez pas les mêmes attentes et pas forcément sur le même produit. T.C.: Comment décidez-vous si un fournisseur est trop risqué ? V.R.: Dans la procédure qu'on a mise en place depuis que je suis arrivé, il y a une première phase de présélection. La prospection se fait en étant à l'écoute du marché en cherchant sur Internet. A partir du moment où on a une liste de fournisseurs potentiels il faut évidemment commencer à faire un premier tri. J'essaie de ne pas aller chez les fournisseurs trop gros. Parce qu'on n'a pas un chiffre d'affaires énorme. Je veux avoir suffisamment de... , pas de pouvoir, mais je veux être entendu chez le fournisseur. Je ne veux pas avoir en face de moi une grosse machine qui va me rire au nez quand je demande certaines choses spécifiques à *****. Donc ça c'est un point important. T.C.: Et ça c'est pareil pour la France et pour l'étranger ?</p>
<p>Interesting to get feedback from others</p>	<p>(This section is merged into the text above for better readability and to avoid repetition of the same text.)</p>
<p>Need to be listened to by a supplier</p>	<p>(This section is merged into the text above for better readability and to avoid repetition of the same text.)</p>

SME global supply chains:
case studies in the French agricultural machinery sector

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WESTMINSTER** 



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- Research Context
- Research questions
- SCM & SMEs
- SMEs & Internationalization
- Methodology
- Findings & Analysis
- Managerial Implications

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Research context

SMEs comprise vast majority of private sector companies, account for more than one half of total employment and drive economic growth (Hessels & Parker, 2013)

Benefits to SMEs of involvement in international trade: stimulates productivity growth, sales, access to new knowledge, more innovation (OECD, 2008)

‘Obtaining reliable foreign representation’ was ranked the most important barrier to SME internationalization. Difficulties in managing complex relationships at a distance (OECD, 2008)

120,000 exporting SMEs in France ten years ago, around 90,000 today (Euler Hermes, 2012)

CAC 40 companies achieve 72% of turnover internationally (Ernst and Young, 2012)

3

Research questions

How do French SMEs in the agricultural machinery sector lead companies in their chains, manage their global supply chain relationships with downstream agents and upstream suppliers?

Two paradoxes:

1. resource limited SMEs managing global supply chains;
2. diversity of practice and experience in same sector.

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SMEs and SCM

- The central proposition of SCM is that high performing supply chains lead to high performing companies (Sukati et al., 2013)
- To optimize flows, improve coordination and foster collaboration, governance of inter-firm relationships in the chain by the lead firm is recommended (Richey et al., 2010). For SMEs 'relationships mean everything' (Fuller and Lewis, 2002).
- "Smaller business are not smaller versions of big business. Although both sizes of companies deal with many of the same issues, smaller businesses also deal with unique size related issues as well, and they behave differently in their analysis of, and interaction with, their environments" (Shuman and Seeger, 1986, p.8)
- SMEs do not implement SCM as deeply as large companies and those that do implement SCM suffer poorer performance than they should (Arend and Wisner, 2005)
- Vaaland and Heide (2007) found SMEs lag behind LEs in technology adoption needed for SCM implementation.

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SMEs and internationalization

- Need to distinguish between different forms of SME internationalization: FDI or exporting, informal or formal collaboration (Hessels and Parker, 2013) and between different firms: born globals or born locals
- Exporting has positive impact on SME growth but negative impact on profitability. In longer term FDI can impact positively on both growth and profitability (Lu and Beamish, 2001)
- More SMEs reported more improvements to competitive strength from FDI than from exporting – 69% to 56% (European Commission, 2004)
- SMEs are subject to financial and human resource constraints (Buckley, 1989; Hessels and Parker, 2013)
- Because of constraints of management time, SMEs take short-cuts in decision-making and information gathering with potentially disastrous consequences (Buckley, 1999).

6

Research Methodology

- Interview-based case studies of 12 SME final assemblers of agricultural machinery in north west France;
- 28 interviews carried out in 3 stages: **exploratory** then **explanatory**, followed by feedback and validation through **group discussion** sessions. Interviews in French, then transcribed and translated into English;
- Also interviews with 3 larger companies in same sector;
- Difficult to condense, summarize and analyze more than 100 pages of transcriptions.

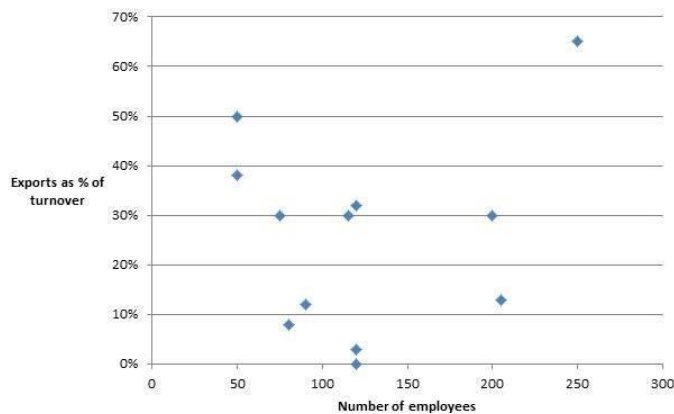
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SME agricultural machinery manufacturers in north-west France in research programme, 2012-2015

Firm	Turnover*	% export*	Staff	Main product	Persons interviewed
A	42m€	30%	200	Seed drill machines	Logistics Manager
					Export Manager
					Purchasing Manager
B	28m€	32%	120	Slurry spreaders	Director
C	36m€	13%	205	Trailers	Export Manager
					Purchasing Manager
D	18m€	30%	115	Muck spreaders	Export Manager
					Purchasing Manager
E	25m€	30%	75	Corn Pickers	Export Manager
					Purchasing Manager
F	12m€	50%	50	Soil looseners	Logistics Manager
G	17m€	0%	120	Trailers	Purchasing Manager
H	8m€	38%	50	Trailers	Purchasing Manager
I	n.d.	65%	250	Seed drill machines	Export Manager
J	20m€	3%	120	Buckets/Excavators	Purchasing Manager
K	11m€	8%	80	Soil preparation	Purchasing Manager
L	13m€	12%	90	Livestock equipment	Export Manager
M	32m€	11%	170	Forestry machinery	Export Manager

8

Export performance of 12 SMEs in research project.



N.B. Closer correlation between export success and number of years active in the export market.

9

Modes of global SC governance – “elements of establishing and structuring exchange relationships”, (Heide, 1994)

	Market	Network – informal	Network – group structure	Hierarchy
Characteristics	Spot purchasing and low value, non- strategic components	Governance through informal network-based relationships	Formal partnerships and mergers with other companies in same sector	Rare examples of FDI in Poland and China
Quotes from research interviews	<i>“When I purchase a standard part, the risk is minimal, because if I can’t buy from supplier x, I’ll buy from supplier y”.</i> Purchasing Manager, Firm K	<i>“Our relationships with other buyers allow us to find suppliers. In this sector around Rennes there is a really very close network”.</i> Purchasing Manager, Firm A	<i>“The partnership means that we can standardize our product range and be more competitive. Our partner’s good image brings credibility to our product”.</i> Export Manager, Firm L	<i>“We created a subsidiary in Poland because the market seemed to us to be sufficiently large”.</i> Director, Firm B

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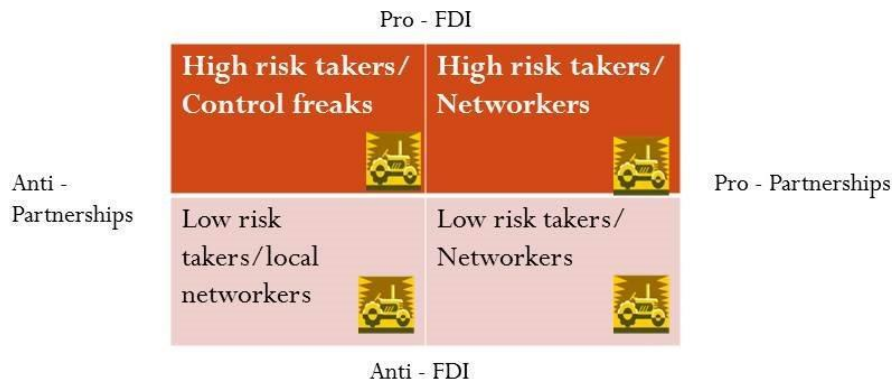
Findings

- Key challenge of obtaining reliable service from foreign partners has range of different solutions – formal/informal, contractual/non-contractual, monitoring/no monitoring
- Those SMEs that pursue development of new relationships and partnerships and/or leverage existing ones are the most successful internationally (Jones et al., 2014; Granovetter, 1973)
- Agency problem of asymmetries in downstream relationships with foreign distributors, also found in upstream relationships with larger suppliers: *“Big suppliers are to be avoided”*
- A certain hesitation about internationalization
- Big firms integrate downstream international supply chain but still face agency problem!

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Findings

Different approaches to SC relationships



« It's every man for himself in the agricultural machinery sector », Director, Firm B.
 « We are not a big market player. Therefore there is a need to understand how our partner SMEs or large groups are working », Export Manager, Firm I.

12

Managerial implications - Barriers and facilitators of effective management of SME global supply chains

Barriers	Facilitators
Asymmetries of size and negotiating power	Informal partnerships and networking with non-rival SMEs
Non-aligned objectives with vertical partners	Long term partnerships with foreign suppliers and customers
Lack of prioritization by agent	Country-specific partnerships with larger companies
Lack of information about market changes	Correct choice of partners
Internal logistic failures	Participation in purchasing groups and Trade Fairs
High transaction costs caused by language, exchange rates, laws	Dedicated commercial and technical subsidiaries in key foreign countries

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