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International Supply Chain Management Case Study

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Abstract

This chapter examines three interlink areas of international supply chains, global production, global sourcing, and global distribution within three separate case-studies; Samsung's global production, UK Airbus's global sourcing, and Tesco's global distribution. The overall results highlight the importance of a holistic approach to international supply chain management. The result of our Samsung's smart phone production network and Tesco's global distribution lend support to the eclectic paradigm, suggesting that firms are able to be successful when they exploit specific opportunities wherever they are located in the world. Whilst Samsung have been successful with keeping in-house production, Airbus are doing well with outsourcing. The Airbus case highlights the importance of risk management in global supply chains. All three cases demonstrate examples of benefits and challenges posed by knowledge sharing with partners in the supply chain. Despite this, Tesco case demonstrated the importance of collaboration in global supply chains to access local market knowledge and appropriate distribution channels. This approach is relevant for multinationals to overcome the liability of foreignness, which are not the case for Samsung or Airbus. Overall, three case studies have highlighted the importance of strategic fit between the global strategy of the organization, and the range of local environments in which international supply chains operate.

1. Introduction

Globalization and the development of information and communication technology leads to an increasing influx of new players into every market. More and more companies are joining the global playground, selling their products or services to, and purchasing their inputs from, the international market. Supply chain processes and functions are increasingly implemented by

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node companies from different countries. Material, information and financial flows in a supply chain run through different geographical, cultural and legal environments. Thus supply chain management evolves into a new stage of global supply chain management.

Compared to traditional supply chain management, global supply chain management is much more complex because of the following reasons. Firstly, global supply chains cover a wide area. Logistics is conducted over long distances by a variety of modes of transportation between different countries and regions, across oceans and continents. Secondly, global supply chains involve transnational transactions that involve different time zones, natural environments, and social and economic environments. Thirdly, global supply chains are implemented in different contexts, involving companies operating under different legal systems, cultures, customs and conventions, languages, management styles, technologies and equipment.

These characteristics lead to a number of risks and challenges in managing a global supply chain. Therefore, to effectively manage a global supply chain, a firm may need to apply strategies and management methods which are different from those that it uses in managing a domestic supply chain. However, there is a lack of literature addressing the strategic issues in managing a firm's supply chain activities which are conducted on a global scope. The literature strand in the field of logistics and supply chain management focuses on how supply chain activities are planned, implemented, coordinated and managed within at a firm level but does not take into account of the locations where supply chain activities take place. The literature strand in the field of international business addresses the issue of locations for expanding business activities internationally but does not deal with the issue of how business activities are systemically organized and coordinated within a firm operating globally. The literature strand in the field of inter-firm relationship management addresses the question of how transactions between different actors along the chain of activities in the production, processing and distribution of products are conducted and governed (Gereffi et al., 2005). None of these literature strands is adequate to answer the question of how a firm should manage its supply chain activities which are implemented globally.

The chapter aims to explore how some successful global firms organize and manage their supply chain activities at a global level. We employed a case study research strategy. Case study research strategy is a relevant methodology for the research aiming at answering the question "how", especially when a researcher has little control over events, and when the focus is on a contemporary phenomenon within a real-life context (Yin, 2003).

Following Eisenhardt (1989), we began as close as possible to the ideal of no preconceived theories or hypotheses to test but determined the research question prior to the research commencing. We selected three firms operating globally from three different industries including electronics, aerospace and retailing, in order to explore how the firms use strategies and management methods to manage their global supply chain in three key areas, those of global production, global sourcing and global distribution.

The electronics industry is an industry in which production is conducted at a global level. Electronics components and parts are produced in some countries and assembled in different countries into finished products. Samsung Electronics was selected to explore how the firm manages its global production network. Similarly, aerospace is an industry in which procurement and sourcing are conducted at a global scope. Airbus UK was chosen to explore how the firm manages its global sourcing network. Retailing is an industry in which distribution expands globally. Tesco was opted for in order to explore how the firm manages its global distribution network. Our three cases qualify for "extreme situations and polar types in which the process of interest is 'transparently observable'" (Eisenhardt, 1989, p. 537).

We collected data from both secondary and primary sources. For secondary data, we picked up news reported by world-wide known newspapers including Business Insider, Bloomberg and Wall Street Journal. For primary data, we archived the company's documents from their official websites and conducted semi-structured interviews with managers from the case firms. Regarding Samsung Electronics, our interview were conducted in October 2014 with two managers at Samsung Electronics factories in Vietnam who are familiar with the company's plans but asked not to be identified because of privacy. For Airbus UK, we collected our primary data via conducting two semi-structured interviews with the department of Engineering of the UK Airbus. The Chief Engineer and an Engineer of Airbus-A380 who were aware of the global sourcing strategies of the company shared their perspectives on the Airbus global sourcing and its challenges. For Tesco, primary data was collected from the corporate website of the organization.

2. Samsung's smart phones production network

Facing fierce competition and rapidly changing market demand, a manufacturing company has to continuously seek for improvement in the way that it makes products. Keys for success lie not only in technology improvement but how to organize and manage a production network. We will explore how Samsung Electronics organize and manage its global production network from three key angles (i) how production processes are organized within

Samsung Electronics (ii) where their factories are located; (iii) how their global production network are coordinated and managed.

About Samsung Electronics

Founded in 1969 as a division of Samsung Group, Samsung Electronics started as a TV producer. In the early and mid-1990s, Samsung Electronics began producing memory and hard drives for personal computers. Nowadays, Samsung Electronics is a global IT leader. Samsung Electronics consists of three main divisions: Consumer Electronics, IT & Mobile Communication, and Device Solution. Each division is responsible for its own factories and assembly plants. No outsourcing of assembly takes place (Samsung, 2013).

IT & Mobile Communication is Samsung's best income generator. It accounted for 54% of Samsung annual sales in 2013 (Samsung 2014a). This is largely due to Samsung's mobile phones in a new position as a global market share leader. Since launching its first Android smart phone in 2010, Samsung Electronics' annual sales and operating profit have signficantly increased. The phone is now in its fifth generation and regarded as one of the best smart-phones in the global market. This enables Samsung to boost its share in global smart phone market from 8% in 2010, to 19.9% in 2011, 30.4% in 2012, and 32.3% in 2013 (Samsung, 2013; Samsung 2014a). However, in 2014, Samsung's sales figure in its Business Report 2014 Quarter 1 signals a declining trend in its mobile business. Rising to dominate the global smartphone market in the past four years, Samsung faces a tough battle where its flagship Galaxy S5 handset is not selling as well as the previous year's model; Chinese and Indian low cost rivals are eating its market share; and Apple is moving toward large-screen premium phones.

Samsung's Asia Production Network

The success of Samsung's smart phone arises from its successful production network in Asia. Although Asia was not Samsung's first attempt in off-shoring production, it soon became a major destination for Samsung's direct investment. Samsung's earliest overseas production efforts were a Portuguese joint venture set up in 1982 and a US subsidiary founded in 1984. But after unsatisfactory results with US production, Samsung focused on establishing low-cost manufacturing plants in Asia, and Eastern Europe. Among Samsung's total of 37 production sites around the world, 21 factories are in Asia (Samsung, 2014 f).

Samsung's production network in Asia spread rapidly since 1989, when it opened a TV assembly plant in Thailand. Samsung's production in Asia ranges from components to consumer products, and has spread from Southeast Asia to China and India. Southeast Asia and China are Samsung's important sub- production networks with the two central nodes located in Singapore and Beijing.

Samsung's operations in Southeast Asia initially focused on assembling consumer goods for exports. Samsung's factories set up in South East Asia aim to utilize the low-cost resources but also to pursue some of the major customers for its components as well as access some of the world's most dynamic markets. The experience of its network creation in Southeast Asia undoubtedly led to the subsequent creation of other Samsung production networks in China and in Europe.

Samsung's production presence in China and India is increasingly connected to marketing objectives. The firm has established ties with local partners, typically as a pre-requisite for market entry, in addition to establishing its own distribution channels in these vast markets.

Interaction between Samsung's two Asian sub-networks occurs through a flow of components sent from Malaysia to an affiliate in China and then Chinese-made components sent to Thai and Vietnamese subsidiaries. The key intermediary is the Singapore-based purchasing office, which purchases and distributes a large amount of components among the Samsung affiliates and those from their Korea based components suppliers.

Having built on the company's past history of OEM relationships with Japanese companies, Samsung's Asian networks are now the most important part of the Samsung global production network, supplying a considerable number of components to Samsung affiliates in Europe and America. For example, Samsung Electronics Thailand has supplied parts to Samsung Electronics in Europe, Brazil and Korea (Kim, 1997).

Samsung's locally-oriented operations have achieved local and regional linkages between production and marketing activities. For design and product development activities, although Samsung Electronics has set up a number of research regional centres in its strategic markets, the Korea-based plants still play a central role in Samsung's regional technology network.

Samsung's Smart phone production

Most of Samsung smart phones have been made by Samsung's Asian production network. As a part of Samsung's production network, the production of Samsung smart phones is facilitated by its existing supply network of components and parts. The heart of the Samsung production network is its plant in its home country, Samsung Electronics Gumi, a multimedia complex in Gumi, Gyeongsang Province in South Korea. The Galaxy Samsung smart phones have been designed, extensively tested and produced in Samsung Electronics Gumi (Business Insider, 2014). Samsung keeps most of the process of producing its smart phones in-house. Unlike some of its rivals, Samsung is in the unique position of being able to control all aspects of its smartphone production from chips, to screens, to software, to assembly. Samsung uses its own hardware components to produce its handsets, rather than sourcing them from third parties. Manufacturing of all components for Samsung handsets is conducted in Samsung's factories in Korea, Malaysia, and China (Samsung2010).

Samsung's component strategy is the operational efficiencies gained by placing manufacturing facilities and R&D offices in the same plant (Samsung, 2014e). Key components including processors, to screen of Samsung smartphones have been developed in Samsung's manufacturing plants and research centres in South Korea and mass produced in Samsung factories in China.

In 2010 when the first Samsung smart phone was launched, the major locations for assembling Samsung mobile phones were Korea, China and Vietnam. The assembly point would depend on the volume required and the ultimate customer. For products for most of the world, the assembly point would be Korea or Vietnam. This might be either Seoul Commtech, Samsung Mobile Media Division or Samsung Electronics Vietnam. For Chinese customers, the assembly point would be China. This might be either assembled at Tianjin Samsung Telecom Technology or Shenzen Samsung Kejian Mobile (Samsung 2011, 2013b). For India customers, since 2011, smart phones have been assembled in India by Samsung's factory located in Noida although most of the devices built in India stay within the country rather than being sold elsewhere (Samsung 2014d).

Recently, Samsung has tended to shift most of its smart phone production base in China to Vietnam. In 2013, Samsung expanded an existing mobile phone assembly plant and is building another huge plant in Vietnam. According to a manager at Bacninh factory of Samsung Electronics Vietnam, by the time the Samsung's second handset factory in Vietnam reaches full production in 2015, Samsung factories in Vietnam will be making more than 40 percent of the phones and may eventually produce as many as 80 percent of Samsung handsets. Components are transported from Samsung factories in China to Vietnam for assembling. Logistics for components are arranged through three key centres: Tianjin, Shanghai, and Hong Kong.

Samsung Electronics expects “Vietnam to play the central role of global mobile-phone production. The company chose to invest in Vietnam because it is politically stable, has a good labor environment and supports the industry. The government is very proactive”, said HyukJoong Kwon, Samsung Electronics’ managing director, in an interview with Bloomberg(2014).

“Samsung and its units will pay no tax for the first four years and half the full rate the following nine years” said Mr. Duong Ngoc Long, chairman of the local People’s Committee in an interview with in an interview with Bloomberg (2014).

Does Vietnam’s location close to Samsung production bases in China and South Korea provide an extra incentive which stops Samsung from shopping around for low cost production base where tax breaks and cheap workers are offered?

In 2014, Samsung Electronics is considering producing smartphones in Indonesia. "Samsung has been discussing with the Government of Indonesia to produce smartphones to meet domestic market demand, so that local consumer needs can be met in an effective manner," said a Samsung spokesman in an interview with Wall Street Journal (2014).Will Samsung leave Vietnam and chose Indonesia as its major assembly site for smart-phones?

Currently, Vietnam remains a good location for Samsung’s smart phone assembling. Vietnam is in strategic location in the marine route connecting East Asia to South East Asia, close to China, Thailand, Malaysia where almost of components and parts for Samsung’s smartphones are made. It offers skilled labor at competitive cost and attractive tax incentives. Indonesia is further away from Samsung’s supply network and key markets. Producing in Indonesia to serve Samsung other major markets will result in higher logistics cost than producing in Vietnam to serve Samsung major markets. Therefore, Samsung’s likely move to open cell-phones assembly lines in Jakarta is most probably to avoid the Indonesian government’s policy of imposing a high sale tax on luxury imported goods like smartphones rather than to reconfigure its global production network.

Discussions of the research findings

The strategies and management approaches which Samsung applied to organize and manage its smart phone production network which lead to its huge achievements in the period from 2010-2014 provide good implications for both the academic and managerial communities.

Key literature in strategic management in 1990s (Porter, 1990, Barney 1991) suggests that to stay competitive, a firm should focus on high value added activities or core competences and outsource low value added activities or non-core competences. In 2000s, a large number of firms in apparel and electronics industries have focused on design and product development and outsourced production to Asia. Samsung’s major rivals such as Apple outsource the production of components and assembly of finished products but Samsung has been doing things differently. Samsung is involved in the whole production process, from design, manufacture of components and parts to final product assembly. Thanks to its involvement at all stages of the production process, Samsung was therefore able to produce the display for Apple. Learning by producing components for Apple's smart phones, Samsung soon caught up with Apple in smart phone production and has then outcompeted Apple in terms of market share. Manufacturing enables Samsung to develop capability in producing different product lines. This is an important capability in the high tech industry because in this industry market demand changes rapidly, so the capability of doing different things enables the firm to quickly create different product lines, and avoid the risk of overproduction in one product line. Samsung's achievements prove that making, rather than outsourcing, is still an effective business model in consumer products manufacturing sector.

Setting up subsidiaries in low labour cost countries to produce components and assemble finished products helps Samsung to save production costs and also to have good control over its whole production process and technology knowhow. With vertical integration or hierarchical governance, Samsung takes full control of its subsidiaries. The risk of creating future rivals due to sharing technology knowhow with suppliers is negligible for Samsung because almost of components and parts are produced by Samsung's subsidiaries. The success of Samsung proves that in the technology industry, hierarchical governance is an effective approach to govern production networks. The key determinant for Samsung’s choice of governance method is the return on investment and degree of control over production network, rather than the determinants suggested by the key literature in Global Value Chains. Gereffi et al (2005) proposes that three factors, including the complexity of transactions, the codifiability of transactions, and the capabilities of suppliers required to a specific transaction, determines a firm choice of governance of its production network. Samsung choice of hierarchical governance is different from the verdict of Gereffi et al (2005) that a firm invests to set up subsidiaries to produce a product because product specifications cannot be codified, products are complex and supplier capabilities are low. Smart phones' specifications are codifiable and the capability of the supply base in Samsung's key production sites like China, Thailand and Vietnam is not low. Clearly, return on investment and degree of control over production network are critical determinants of firm choice of production network governance but are omitted by key literature.

The decision on locating production sites needs to be taken in conjunction with market expansion strategy. Samsung's choice of location for production investment is closely related to Samsung's market entry strategy. Among two strategies to configure a firm's production network suggested by Harrison and Hoek (2011) are "focused market" and "focused factories"[2]. The Samsung case suggests that "focused market" not "focused factory" is an efficient strategy for configuring production networks when a firm wishes to distribute its products in highly protected markets. A firm should consider "focused market" strategy, setting up a factory in a local market to serve that market if a local government imposes high import duty on the firm's products.

Samsung's choice of location for investment lends a support for the eclectic paradigm also known as OLI model[3], a key theory of firm's internationalization developed by Dunning (1988). All the countries which Samsung invested in setting up factories have location advantages including low wages, geographical positions, and special tariffs. By engaging in foreign direct investment rather than exporting or licensing, Samsung successfully blend two different motives including efficiency seeking and marketing seeking and effectively exploit their ownership specific advantages in these markets.

To keep production cost low, a firm needs to be open to the possibility of relocating a factory to a new location which offers lower production cost. With rising labour costs, China is no longer a low cost production site. By relocating an assembly factory from China to Vietnam, Samsung obtained production costs lower than the expenditures which its rivals have to pay to have their product assembled in China.

The case of Samsung has much to contribute to our understanding how in reality a firm organize and manage its global production network. Outsourcing in which a lot of firms are involved, is not the only winner. Setting up factories in the countries with location advantages of low cost labour, geographic position, enables the firm to achieve high efficiency in the

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[2]"Focused market" is a strategy upon which each local market will be served by a factory set up in that local market. "Focused factories" is the strategy upon which a limited range of factories are set up to serve all markets.

[3]The OLI is an abbreviation for three categories of advantages, namely the ownership advantages, locational advantages and internalization advantages.

supply chain, contributing to the firm's competitive advantages and market share improvement. However, it provides a useful illustration of some of the opportunities and challenges that internationalizing organizations may face with regards to their distribution strategies, and demonstrates the importance of strategic fit between such strategies and the local environment in which the organization operates.

3. Global Sourcing in Aerospace Industry: A380 AIRBUS

The continuous internationalization of trade and the phenomenon of globalization have made global sourcing available and appealing to the global industries. With regard to the upstream part of the supply chain, the need for better suppliers, and the research into specific competences and concerns related to international competition, have forced companies to improve their ability to cope with suppliers located in different countries around the world (Golini and Kalchschmidt, 2011). This is 'global sourcing,' which is defined as the purchasing of goods outside the geographical area to which the company belongs (Kotabe and Omura, 1989, Murray et al., 1995a and Murray et al., 1995b). During the last two decades the number of companies outsourcing to external suppliers increased drastically which in turn contributed to economic development. It is argued by Rossetti and Choi (2005) that strategic sourcing integrates the buying firm's strategic decisions with those of its key suppliers, promoting trust and decreasing transaction costs. However, the failure in setting an appropriate strategic sourcing strategy can be very costly as the sourcing influences other activities as production and inventory because of longer and more uncertain lead times in an international supply chain (Golini and Kalchschmidt, 2011). Thus strategic sourcing promises productive relationships and improved capabilities.

Purchasing from a foreign source is not different in any fundamental way from purchasing from a domestic source; for example the same value for money objectives are pursued (Baily, Farmer, Jessop, and James, 1998). Outsourcing has an effect on financial ratios, in a way, to increase return on assets and investment (ROA, and ROI respectively). However, according to researchers such as Rossetti and Choi (2005), this does not happen due to the misapplication of strategic sourcing by focusing on short term perspectives, and dishonesty at original equipment manufacturers (OEMs). This case study aims to explore outsourcing in the Aerospace industry, in particular, within Airbus UK, one of the leading and successful global aircraft manufacturers.

Thus, the case study endeavors to contribute to a better understanding of the challenges in implementing a successful outsourcing strategy within Aerospace industry by reviewing i) a background of the UK Aerospace industry and Airbus, ii) buy or outsourcing strategy, iii) supplier selection, iv) risk management, v) findings and managerial implications.

A background of UK Aerospace Industry& Airbus

Over the last 60 years, the UK has built up a world leading position in the manufacturing and design of aircraft and wings. The UK Aerospace industry is the largest in Europe; a direct employer of more than 100,000 people; and a powerhouse within the UK economy, with a turnover of more than £20 billion a year. The UK Secretary of State for Business (2014) stated that "the UK aerospace industry is a big success story and is the top aerospace industry in Europe and a lead supplier to the world aerospace market". The UK aerospace industry currently holds 17% of global market share, earning it the number one position in Europe and the number two position in the world. On the other hand, fuelled by population rises, increasing urbanization, greater market access and economic growth, especially in emerging markets, as well as environmentally efficient technologies, the global civil aerospace market is entering a period of unparalleled demand which will see the number of passenger aircraft in service more than double over the next 20 years.

According to the 'Reach for the Skies Report' (2014), through to 2030, the forecast global demand for civil aerospace stands at 56,700 aircraft, valued at $4.14billion, 27,000 of which will be 100-plus seat passenger aircraft (themselves worth $3.2 trillion). Average sector annual growth by 2030 is forecast at 4.8%, with much of this growth forecast to occur in Asia-Pacific, where 33% of world traffic is expected to take place by 2030. It is also forecasted that by 2020 there will be a global market for around 9,500 civil helicopters (worth around $50bn). This shows, sourcing strategy in manufacturing aircrafts needs a specific attention.

Buy or Outsource

The above evidences illustrate the increase in aircraft manufacturing to respond to the demand in the market place. In addition, the next generation of aircraft will be based on radically different technologies, requiring new manufacturing processes and placing new challenges on the UK supply chain if it is to remain globally competitive. Thus the UK aerospace industry needs to identify upcoming opportunities to broaden its base across the global market, selling to a wider range of aircraft and equipment manufacturers. This raises a question of where the equipment and structures are sourced from. Does the UK needs to globally out-source these capabilities?

It is argued by Johnson, Leendersand Flynn (2011) that companies decide whether to 'buy or outsource' to get access to superior supply chain management expertise, technical expertise, and because outsourcing may open up markets for the firm's products or services. On the other hand, Chopra and Meindl (2013; p. 442) argue that the decision to outsource is based on the growth in supply chain surplus provided by the third party and the increase in risk incurred by using a third party. Outsourcing should be considered by a firm if the growth in surplus is large with a small increase in risk. Performing the function in-house is superior if the growth is surplus is small or the increase in risk is large.

Airbus UK, which is a wholly owned subsidiary of Airbus SAS, produces wings for the airbus aircraft family. Airbus is capitalizing on 30 years manufacturing experience, to build the world's largest ever civil aircraft to date- the A380. Building on their previous experience, the final assembly process in Toulouse, South West France, has been further consolidated to provide an enormously advanced and more integrated and efficient assembly process. On the other hand, Airbus has set up a production line in both China and the USA and locally sources from these areas. However, prior to production, the make versus buy decision is always a challenge. Most of Airbus materials come from a limited number of Tier 1 suppliers who are capable of supplying lead systems and structures. They will have 2nd and 3rd Tier suppliers that fit into them.

Supplier Selection Strategy

In selecting suppliers, a firm must decide whether to use single sourcing or multiple suppliers. Single sourcing, according to Chopra and Meindl (2013) can secure the supplier's sufficient business when the supplier has to make a significant buyer-specific investment. Choosing single sourcing depends on the industry. For example, outsourcing is also used in automobile industry for parts such as seats that must arrive in the sequence production. Coordinating such sequence would be impossible with multiple sources.

According to the UK Chief Engineer of A380, "*the outsourcing for the structure side of Airbus aircraft A380 tends to not travel from afar but equipment can come from over the world*". Airbus is cautious in choosing the supplier, as some of Airbus's suppliers are suppliers of its competitors. For the A380, the landing gear system and the nose are sourced from Canada, however, parts of the landing gear come from Poland to Canada. The control equipment are sourced from Massier-Bugatti-Dowty, an Anglo French Company; valves are made by the Zodiac group which is a French corporation; the brakes, and aviation control system are outsourced from the US; and a lot of pumps and equipment are sourced locally from an English company because the UK aerospace industry is strong from a technology, supply chain and manufacturing perspective. In particular, the key capabilities are; advanced wing design, integration and manufacturing; advanced aero-engines; advanced power trains; landing gear systems; aircraft and engine control systems; advanced propeller systems; wheels and brakes; electrical power system; and high-tech R&D.

The four biggest suppliers for A380 are the US, Canada, France and UK. These are four areas that have the biggest history in aviation. Airbus uses single source supply for most of the equipment and structure part of aircraft, for example titanium is outsourced from Russia. This can generates real concerns when global instabilities such as the crisis in Ukraine in 2013 happened - what would be the alternative? Airbus also tends to multi-source some parts e.g. brakes which are consumables and they can be sourced from different suppliers. Chopra and Meindl (2013) state that having multiple sources ensures a degree of competition and also lower risk by providing a backup should a supplier fail to deliver.

The main US suppliers of A380 are Honeywell, Goodrich, and Hamilton. Honeywell who are supplying up to $2billion worth of equipment for the aircraft, were selected to provide the next-generation air data inertial reference unit, along with the precoolers for the bleed air system, provided by Lienherr. A Goodrich subsidiary, Hella of Germany, was selected in the first two rounds of tenders to provide the exterior lighting systems. This new award will create potential sales for A380 of up to $4 billion. Hamilton Sunderstrand has signed a strategic partnership agreement with the parent company of Airbus, EADS. One of the main concerns for Airbus in selecting its suppliers is whether the supplier has the necessary employees, skills, capability, financial performance, a good track record, manufacturing capability, and suppliers' supply network to make sure that the product works when it is needed to be available. On the top of that is the cost issue which is slightly complicated because it is not always the main driver due to the fact that Airbus doesn’t always buy from the cheapest. They buy from someone whose overall package is sensible and suppliers who will provide support throughout the product life. Airbus strategy in this case is in line with Chopa and Meindl's (2013) argument that no matter what mechanism is used in suppler selection, the decision should be based on the total cost of using a supplier and not just the purchase price.

Risk Management in Sourcing

It is argued by Chopra and Meindl (2013) that sourcing risks may lead to an increase in procurement costs, delay in meeting demand on time, or the loss of intellectual property. In particular in high tech industries such as aerospace, it is important to develop strategies to mitigate a considerable part of the risk.

A supply chain with a single sourcing strategy can be vulnerable in on time delivery in the case of natural disasters or political instability and protest which can lead to the risk of supply disruption, for example, the case of earthquake and tsunami in Japan in early 2011. This kind of risk can be mitigated by multiple sourcing strategies (Chopra and Meindl, 2013). Given the high cost of developing multiple sourcing, this approach seems to be more appropriate for products with relatively high demand.

Intellectual property risk can be mitigated by bringing and keeping sensitive production in-house. For Airbus, the main risk in global sourcing has been associated with the Intellectual Property Rights (IPRs) so far. The UK Chief Engineer for A380 believes that '*although IPRs is owned by the company who designed the structure, however, it is a real concern in recent years as new players from emerging economies such as China and Russia started to build their aircrafts'.* Scholars such as Chopra and Meindl (2013) stated that even when production is outsourced, firms can maintain ownership of part of the equipment if it is viewed as having significant intellectual property value. This is a reason that some companies in automobile industry such as Motorola own some testing equipment at its contract manufacturers.

Discussion of Research Findings

This case study discussed the significant role of outsourcing and in particular global sourcing in international supply chain management. The case of the UK Airbus global sourcing was examined and its contribution to knowledge is building on the 'global sourcing' literature (Chopra and Meindl, 2013; Rossetti and Choi (2005; Golini and Kalchschmidt, 2011. In particular, the result of this case study highlighted three important part of global sourcing i.e. buy or sourcing strategy, supplier selection, and risk management in sourcing.

This study revealed that UK Airbus apply outsourcing in their business. It is argued by Johnson, Leenders and Flynn (2011) that companies decide whether to 'buy or outsource' to get access to superior supply chain management expertise, technical expertise, and because outsourcing may open up markets for the firm's products or services. The findings of this study show that most of Airbus materials come from a limited number of Tier 1 suppliers who are capable of supplying lead systems and structures. Thus the purpose of outsourcing for UK Airbus is to get access to expertise that matches the company's standards and needs.
Indeed, the results support Chopra and Mindl's (2013) argument that low-cost suppliers

should be given large, steady orders of mature, low-value products that do not require significant engineering and design support, such as brakes, thus multiple sourcing can be adopted. In contrast, responsive suppliers should be responsible for high-value, volatile products that are often early in their life cycle and need significant engineering/design support, therefore, single sourcing is recommended.

The results also emphasizes the risk management of sourcing. Intellectual property rights was identified as one of the main risks in global sourcing. IPR is very much respected among the main competitors e.g. Airbus and Boeing. However, the presence of new players from emerging markets such as Chinese aircraft manufacturers remains a big concern to the main players.

Managerial implications

To date, global sourcing, strong innovation in advanced manufacturing processes and underpinning capability in key product areas have helped to sustain UK competitiveness in the global aerospace market. However, the next generation of single-aisle aircraft will feature much greater use of composites or advanced metal not currently available in today's market (Reach for the Skies Report, 2014). This would remain challenging to procurement managers when it comes to decide on the suppliers' selection strategy from the main and new players in Aerospace industry.

Given that IPR is one of the risks in global sourcing; another crucial area that needs special attention from managers point of view is how to ensure that the knowledge that suppliers are built up with Airbus is not being used to help new competitors/new players. What are the implications of disregarding IPR to Airbus? Will this issue encourage managers to adopt local sourcing than global sourcing in Aerospace industry?

Thus, the aviation industry is slightly an unusual business. It makes a product which is sold in every country on the planet and having a global supply chain is not surprising but rather challenging.

The contribution to knowledge of this research-based case study builds on the growing literature on international supply chain management and in particular to 'global sourcing'. The managerial implication of this case study contributes to a better understanding of how global sourcing has been practiced successfully by a global company such as UK Airbus. This can be a lesson to learn for other high-tech manufacturing industries that requires expertise and specific engineering design.

4. Tesco's Distribution Network

Global distribution is concerned with how firms who operate internationally get products to market, and the channels which they select through which goods or services will move until they reach the end user (Waters, 2009). Clearly, organizations who make these decisions on a global scale face a much more complex environment than those organizations who operate domestically, as different countries will typically use different channels. In this section, we will explore the global distribution network of Tesco, in order to consider three key points:

i. The expansion path that Tesco have followed
ii. Entry methods that have been used in order to access local distribution networks
iii. Challenges that Tesco have encountered, with a particular focus on cultural differences.

This case has been constructed using primary data from the corporate website of Tesco, and secondary data from a range of resources, including financial statements and reports, industry reports, and news articles.

Tesco is one of the world's largest grocery retailers, currently employing around 500,000 people across twelve different countries (Tesco PLC, n.d.). The retail giant, which was founded in the UK in 1919, has operated internationally since 1979, when it acquired a 51% controlling stake in Albert Gubay's Three Guys business in the Republic of Ireland (Palmer, 2005), and now has retail stores not just in the UK and Ireland, but also in India, Malaysia, South Korea, Thailand, Czech Republic, Hungary, Poland, Slovakia, Turkey and China, with 65% of its total retail space now located outside of the UK (The Guardian, 2011).

Since this first, incremental expansion into a market which is both culturally and geographically close to its home market of the UK, Tesco have since demonstrated a greater appetite for risk, venturing further afield to markets which have much less in common with its domestic market and in doing so, have used a variety of different market entry methods and distribution channels.

This case study will examine some of the market entry decisions which Tesco have made over the past thirty-five years. Not all of the entry decisions that Tesco have made have been successful, for example in 2013 the company announced that it was withdrawing from the US market after the disappointing results of its wholly owned subsidiary "Fresh & Easy," after operating in the market for just six years. The failure of Tesco in the US market came swiftly after the organization's decision to exit Japan in 2011, just nine years after its acquisition of the C2 chain of small food stores.

Initial International Expansion

After operating a successful business in the UK for sixty years, Tesco's first international venture was into the neighbouring market of Ireland in 1979, via acquisition. The UK and

Ireland have long been important trading partners, and at first glance, the 51% stake which Tesco acquired in the Irish chain "Three Guys" seemed a logical first step into international distribution for the grocery retailer. The UK and Ireland share a similar culture (Hofstede, 2001), and the geographic proximity of the market meant that it was relatively unproblematic for Tesco executives to visit their new acquisition, which should have facilitated knowledge transfer. However, whilst the location for the international expansion may have been appropriate, analysts questioned the timing of the move, believing that it would have been preferable for Tesco to continue to focus on its domestic business, given the challenging competitive environment that the company faced in the UK (Palmer, 2005). Ultimately, the exercise was viewed as a distraction, and in 1986, after seven years operating in the Irish market, Tesco divested itself of its stake in Three Guys, meaning that the company was once again operating solely in its domestic market. Since then, Tesco took the decision to re-enter the Irish market in 1997 via another acquisition. Having learnt from past experience, and other international experiences in the interim, the second time Tesco entered Ireland it has been successful, and now has 146 stores in the country, making it one of the leading retailers in the marketplace (Tesco PLC, n.d.)

First Successes

Following the failure of its initial attempt at international expansion, Tesco waited until 1992 to attempt it again, with another acquisition in a geographically proximate market, that of France. However, the company faced extreme competition in the face of local rivals such as Carrefour, and left the French market in 1997.

Therefore, the first international expansion of Tesco which is still in operation today was their expansion into Hungary, which took place in 1995, again via acquisition of a controlling stake in an existing supermarket chain. Following the model which they had used in Ireland in 1979, Tesco acquired a 51% stake in Global, a Hungarian retail chain which gave Tesco access to twenty-six retail stores (Tesco PLC, n.d.). With the break-up of the Soviet Union in 1992, Central and Eastern European markets were an attractive option for retailers looking for access to a new pool of consumers eager for Western-style convenience. Although there are significant cultural differences between the UK and Hungary, Tesco showed itself ready to adapt to local consumer tastes, and now claims that 85% of its product offering in Hungary is locally sourced (Tesco PLC, n.d.). This has also provided an opportunity for the organization to offer an increased product range in its domestic market of the UK, as it now uses a significant number of Hungarian suppliers in order to support the UK retail business.

Success in Hungary was swiftly followed by acquisitions in two more former communist markets, Czech Republic and Slovakia. Tesco is still present in these markets currently, and now operates a multichannel retail format, following the launch of its online retail service in the Czech Republic in 2012, and stand-alone stores for its fashion line, Florence and Fred, in an attempt to boost non-grocery sales in the market (Tesco PLC, n.d.).

Continued Expansion

Buoyed by success in Central and Eastern Europe, Tesco then broke then its trend of incremental, regional expansion, and turned its attention to the rapidly growing, but challenging, markets of East Asia. For their first expansion in this region, in Thailand in 1998, Tesco followed its tried and tested method of acquisition, when it purchased a 75% share of the retail chain Lotus. Food retailing in Thailand traditionally placed greater emphasis on smaller retailers, however Tesco sought to change this model with the introduction of hypermarkets. However, once having established hypermarkets, the company did then open a range of small convenience stores throughout the country as well. Such moves caused criticism, and accusations of destroying the livelihoods of traditional retailers, criticisms which have been levelled at many other Western retails operating in international markets, such as Wal-Mart. However, it appears that Tesco were merely providing the consumers with what they wanted, as their market share has now grown in Thailand so that Tesco Lotus now serves approximately 12 million customers per week, across 1,700 stores across the country (Tesco PLC, n.d.).

On entering the South Korean market in 1999, Tesco deviated from its usual strategy of acquisition of existing retail chains, and instead established a joint venture with the giant South Korean conglomerate, Samsung, in which Tesco held an 81% stake.

The local knowledge that Tesco was to acquire as a result of these acquisitions was invaluable. Not only did it allow the organization to tap into local market knowledge, but it also allowed it to use a brand name which was already well established in the local market, instead of having to build up awareness of the Tesco brand. This strategy was to prove so successful that Tesco would follow the same strategy when it entered the Turkish market, when it acquired the Kipa chain, and continued to operate as "Tesco Kipa."

Over time however, Tesco continued to invest in the South Korean business, until it eventually bought out Samsung, so that its South Korean operations, which operate under the name "Homeplus," are now the largest that the company has outside of the UK.

Part of Tesco's success in South Korea is due to their distribution format. Whilst the company operates a number of large hypermarkets, it also has a significant number of smaller convenience stores, in addition to almost two hundred franchised stores. This enabled Tesco to integrate themselves into traditional distribution channels outside of the major cities, with franchisees putting up 20% of the required capital to open the smaller stores, and Tesco supplying the rest. In this way, Tesco were able to avoid some of the criticisms that the company faced in markets such as Thailand, and to further integrate themselves into the local economy. As in Hungary, Korean suppliers have also become an important part of Tesco's global supply chain for their other markets, particularly for non-food items.

Challenges in the USA

In 2013, Tesco announced that it planned to leave the US market, after having been present since 2007 under the brand "Fresh & Easy," and having failed to make a profit in any of the years in which it had been in operation in the market. Analysts estimated that the failed attempt at market penetration had cost Tesco approximately £2bn (The Guardian, 2013).

Amongst other things, it appeared that cultural differences between the UK and the US had been one of the contributing factors to the failure of the venture. Instead of opting for the hypermarket format which had proved successful in other areas of the world, Tesco opted for smaller store sizes, which though typical in many European cities, were unpopular in the US, where consumers tend to drive to supermarkets and make large, bulk purchases. Furthermore, Tesco had a large number of self-service checkouts, which it uses widely in stores in the UK, but which did not prove popular with American consumers, who felt that Fresh & Easy stores lacked a personal touch (Time, 2013).

In this respect, it appears that Tesco failed to deal with cultural differences between Europe and the US, much in the same way that Wal-Mart did when the American retail giant unsuccessfully attempted to enter the German market in the late 1990s. (Since then, Wal-Mart has entered the UK through the acquisition of Asda, an established British brand whose *modus operandi* it has left largely unchanged).

However, not only did Fresh & Easy face problems in the terms of the format of its stores, but also with the distribution network that it had in place to support them. Tesco had built a sizeable distribution network in order to support their stores, which were based in California, Nevada and Arizona, and established two large distribution centres which it ultimately envisaged would support some 400 stores across this region. However, given the lack of enthusiasm from American shoppers for Fresh & Easy, store openings did not proceed at the pace which had been envisaged, meaning that when Tesco announced its departure from the market in 2013, it still had just 200 stores, after six years of operations (Telegraph, 2013). This mean that that the company had a much larger, and much more expensive and sophisticated distribution network than it actually needed to service the stores that it had, meaning that the company had to deal with extremely high overheads, making it more difficult for the US venture to break even. Ultimately it became clear that the venture was going to continue losing money for the foreseeable future, leading Fresh & Easy to announce the sale of 150 stores to Yucaipa, a Californian private equity company, and the closure of the remaining stores (BBC, 2013).

Looking to the future

Despite the retreat from the US, Japanese and Taiwanese markets, Tesco is still looking to continue to expand its international operations, and given the difficult conditions that the company faces in the UK market, the move to continue to diversify across different markets in order to reduce risk, would appear wise.

In May 2014 Tesco agreed a joint venture with China Resources Enterprise (CRE), combing Tesco's existing 131 outlets which are mainly located in eastern China, following market entry in 2004, with the 3000 outlets of CRE stretching across the country. Although Tesco is the minority partner in this joint venture, with a 20% stake, it is clear that having access to such a large existing distribution network will be of great benefit to them in their attempts to gain market share in one of the largest and fastest growing grocery markets in the world.

Managerial Implications

It can be seen that Tesco initially attempted to follow a model of incremental expansion (Johanson and Vahlne, 1977), seeking to gain access to distribution networks in markets which they felt were similar to the UK, by seeking to enter Ireland and France initially. However, the limited success of such an approach led them to seek out markets further afield, which were both geographically and culturally distant from the UK, and thus they could be said to be following the eclectic paradigm of Dunning (1988).

Once operating in local markets, it seems that Tesco have given a high degree of autonomy to local operations, in order to enable them to best access local distribution networks, thus following a multi-domestic strategy (Bartlett and Ghoshal, 1989), which is locally responsive, as it gives each international operation a high degree of autonomy, with control of their own sourcing and the distribution channels which they access, leading to a decentralized operation. This strategy may be particularly effective in highly fragmented markets, which have long distribution channels, where local knowledge may be of importance in gaining appropriate information and accessing these distribution channels, and this is certainly the advantage that Tesco sought to gain in fragmented markets with traditional distribution structures, such as Thailand and South Korea.

However, it appears that Tesco broke with this successful approach when they entered into the US market, and of adapting to local requirements, they tried to replicate what they had done in the UK, as the US was seen as being culturally very similar (Hofstede, 2001). Here they appear to have fallen prey to the psychic distance paradox (O'Grady and Lane, 1996) which suggests that culturally close markets can in fact be extremely challenging for organizations to manage, as there can be a tendency to assume similarity where it in fact does not exist, which can then prevent managers from learning about important differences. We can therefore see that Tesco appear to have disregarded local information about preferred store format and distribution format, and instead were overly optimistic on the basis of culturally specific information gained from the UK, rather than the US market in which they were operating.

Where Tesco have been successful in operating in international markets, they have tended to seek a collaborative strategy in order to enter initially, and this appears to be their new strategy with regards to China.

Whilst collaborative entry methods are attractive given the lowered financial risks that they present to internationalizing organizations, and the access to local market knowledge that they provide, they are not without their risks, particularly with regards to the sharing of technology with local partners and thus the danger of creating a competitor (Cavusgil et al, 2012). It appears that Tesco have been aware of these risks throughout their international expansion, given that once established in markets, they have frequently sought to reduce the holdings of their partner, as exemplified in South Korea, where HomePlus is now solely owned by Tesco. Such an approach may be due to conflict in the distribution channel (Mehta et al, 2010) which is frequent in relationships of this nature. Furthermore, a key part of Tesco's competitive advantage is the Clubcard, a system which gives them remarkable market intelligence on their consumers. The company does not tend to introduce such a system straight away when it enters a new market, and therefore risk sharing this key information with the local partner, as evidence by the fact that in 2010, Tesco operated Clubcard in just seven of the fourteen countries in which it operated at the time (Tesco, 2010). Therefore from a managerial viewpoint, Tesco could be seen to illustrate the benefits of collaboration in the distribution network, simultaneously being mindful of the risks of sharing technology, and thus in their approach, they seem to have achieved a successful balance between sharing information and working collaboratively, whilst guarding information and technology which could provide collaborators with a competitive advantage over Tesco in the future.

Discussion of Findings

The theoretical contribution of this case study is therefore the support that it lends to the approach of the eclectic paradigm model of international expansion (Dunning, 1988) as it can be seen that Tesco were initially unsuccessful when they attempted to follow a model of incremental expansion (Johanson and Vahlne, 1977) by pursuing distribution opportunities in proximate markets, which was initially seen as a preferable option for internationalizing

organizations (Johanson and Vahlne, 2009).
The case study emphasizes the importance of collaborative market entry modes in order to gain access to local distribution networks. Whilst the literature frequently emphasizes the dangers of collaborative market entry modes such as strategic alliances and joint ventures and their low success rate over an extended period of time (Inkpen and Beamish, 1997) the case of Tesco demonstrates that although collaborative entry modes may be impermanent, as in the case of South Korea, this should not be a reason to consider them unsuccessful, as it may be that this lack of permanence is not problematic for the parties involved, and indeed, it is not suggested that Samsung were unhappy with the fact that Tesco bought them out in order to make HomePlus a wholly owned subsidiary. In fact, in January 2014, Tesco announced a sale and leaseback deal comprising of four Homeplus stores with Samsung SRA, a property fund management arm of the Korean conglomerate, which suggests continued good relations between the two organizations (Tesco, 2014).
Clearly, collaborative entry methods are attractive to internationalizing organizations as they require fewer resources, and therefore should present a lesser financial risk to organizations as opposed to the operation of a wholly owned subsidiary. Furthermore, collaborative strategies provided other, less tangible benefits to Tesco, particularly regarding local awareness and market knowledge, which they may have otherwise had difficulties in accessing, in part due to the liability of foreignness (Zaheer, 1995). However such methods present an increased risk to Tesco in terms of the sharing of technology and market information, which could present opportunities for collaborators to later become competitors, and therefore it is important to consider the trade-offs between resources and control, and control and technology risk as described by Osland et al (2001).
The case study shows that Tesco have attempted to mitigate these risks, by limiting the amount of knowledge and technology that they shared in collaborative arrangements, at least initially until mutual trust had been developed, which is a vital component of any international collaboration (Das et al, 1998), and thus contributes to the literature on the internationalization of retail organizations, in which joint ventures have traditionally received little attention (Palmer et al, 2010).
Finally, the case also highlights the influential role of national culture (Hofstede, 2001) in successful distribution strategies. Frequently, the supply chain literature is technicist, and assumes a rational approach to decision-making by both organizations and consumers. However the experience of Tesco with Fresh and Easy demonstrates that the construction of a distribution system which could be rationally justified based on forecast growth of the network, was in fact inappropriate because the organization had not considered cultural

differences. Such findings should therefore alert practitioners to the dangers of using location models and formulas, such as gravitational location model (Chopra and Meindl, 2013), and indeed to etic models of culture, such as those of Hofstede (2001), which may blind managers to deep cultural differences, as they may superficially appear to be similar to the home country. The experience of Tesco in the US suggests that a deep, emic understanding of consumer behavior is required in order to select appropriate distribution networks in unfamiliar locations, an approach which has not traditionally been taken by the field of operations and supply chain, where the small body of literature which does deal with cultural differences and the impact that they may have on the management of global supply chains, tend to an etic approach (e.g. Mehta et al, 2010; Mehta et al, 2011; Davis et al, 2014).

The case of Tesco has much to contribute to the discussion regarding global distribution in international supply chains. It can be seen that the organization has used a variety of strategies in order to access local distribution networks, and has not always been successful in its attempts to internationalize. However, it provides a useful illustration of some of the opportunities and challenges that internationalizing organizations may face with regards to their distribution strategies, and demonstrates the importance of strategic fit between such strategies and the local environment in which the organization operates.

5. Conclusions

In this chapter we have built on the growing literature on international supply chain management, and specifically focused on three key areas of global production, global sourcing, and global distribution in supply chain management. We examined these areas of international supply chains, which we believe are interlinked, within three separate case-studies; Samsung's global production, UK Airbus's global sourcing, and Tesco's global distribution. The overall results show a link between the three areas, and highlight the importance of a holistic approach to international supply chain management.

The result of our research-based case studies revealed that in global production Samsung’s choice of location for investment lends support for the eclectic paradigm, also known as OLI model, a key theory of firm’s internationalization developed by Dunning (1988). Samsung have tended to engage in foreign direct investment which have specific locational advantages, including low wages, favourable geographic positions and special tariffs. In this way Samsung have combined two different motives for firm internationalization, efficiency seeking and market seeking, which would not have been possible using forms of operation such as licensing.

The findings from Tesco also lend support to the eclectic paradigm, suggesting that firms are able to be successful when they exploit specific opportunities wherever they are located in the world, and that it isn't necessarily advantageous to seek to enter culturally or geographically proximate markets in the early stages of internationalization. However, a point which is raised here is the importance of customizing the product offering and use of distribution channels which appeal to local tastes, a factor which Samsung have not had to take into consideration in the configuration of their global production network.

Whilst Samsung have tended to keep production in-house, and to be involved with the manufacture of a variety of different components used in the production of smart phones, the case of Airbus demonstrates how outsourcing can be successfully used in order to build competitive advantage in the aerospace industry. However, it can be seen that Airbus outsource in order to focus on their core competences, and to ensure the supply of technologically advanced components meeting high specifications, and therefore prefer to use a limited number of Tier 1 suppliers in order to achieve this. Meanwhile Airbus uses multiple sourcing strategy for outsourcing spare parts of the aircraft which is not required specific engineering design.

Furthermore, the Airbus case highlights the importance of risk management in global supply chains, as the company is aware of concerns relating to intellectual property rights, and also working with suppliers which also supply competitors such as Boeing. Returning to the Samsung case, it can be seen how Samsung were able to exploit a similar scenario to their own advantage, as after supplying displays to Apple for the iPhone, they were able to then use this knowledge in order to use these components in their own smartphones, suggesting that Airbus are wise to be wary of such a scenario.

We can also observe that Tesco share concerns regarding the protection of intellectual property rights when working with local partner organizations, as exemplified by their seeming reluctance to launch Clubcard straight away when operating in a new market.

The fact that all three case organizations have demonstrated examples of benefits and challenges posed by knowledge sharing with partners in the supply chain suggests that the question of knowledge sharing and intellectual property rights is indeed a major challenge which organizations with international supply chains must face, regardless of the industry in which they are operating, and therefore highlight the necessity for mutual trust in international supply chains (Das et al, 1998).

Despite this, the third case study which focused on Tesco demonstrated the importance of collaboration in global supply chains, in the case in order to access local market knowledge and appropriate distribution channels. Whilst both the literature (e.g. Inkpen and Beamish, 1997) and indeed the previous two cases highlight the dangers of collaborative working, the case of Tesco demonstrates how such an approach can be used successfully in order to build competitive advantage. This approach is likely to be particularly relevant for multinationals who are using a multi-domestic strategy (Bartlett and Ghoshal, 1989) in order to overcome the liability of foreignness (Zaheer, 1995),which does not appear to be the case for Samsung or Airbus.

Finally, the Tesco case highlights the influential role of national culture in international supply chain management, particularly in downstream relations. Although cultural challenges were not raised in the cases of Airbus and Samsung, this may be because for these organizations we have considered upstream activities, and therefore through the governance mechanisms used, these organizations have been able to mitigate some of the cultural challenges posed.

The experience of Tesco in the US however, demonstrates that regardless of a firm's previous international experience, when looking to sell to consumers, not giving sufficient consideration to cultural differences, even in markets which are culturally close to the home market can be a serious flaw in downstream operations., Therefore, we suggest that not only should appropriate consideration of this topic be a key challenge for managers, but also requires greater empirical investigation within the supply chain literature, particularly following an emic approach to culture, which has traditionally been overlooked in favour of eclectic models on the occasions that culture has been considered in the international supply chain management literature, e.g. (e.g. Mehta et al, 2010; Mehta et al, 2011; Davis et al, 2014).

In conclusion, the three cases that we have selected have demonstrated a range of issues which are features of international, rather than purely domestic, supply chains. We have demonstrated how three leading international organizations cope with such challenges and the benefits and risks of the strategies that they have adopted in order to deal with them, and in doing so, have highlighted the importance of strategic fit between the global strategy of the organization, and the range of local environments in which international supply chains operate.

Our research reveals a couple of limitations. The research aimed at theory building but the findings from case studies are only able to lend support or disapprove existing theories rather than to create a new theory. We conducted research of the three case firms on three different angles and three firms case were selected from three different industries. These prevented us from conducting comparative case analysis to provide more generalizations from research findings. Further research can be done on a sample of firms in the same industry.

The primary data collected from interviews is limited and does not reflect wide range of thought. We could not conduct interviews with a wider range of the companies' representative. Due to business' confidentiality, a number of managers to whom we approached for interview refused to participate. Further research should address this issue by creating better networking with international businessmen.

References

Baily, P., Farmer, D., Jessop, D., Jones, D. (1998).Purchasing Principles & Management .*Prentice Hall, 8th Edition.*

Bartlett, C.A., and Ghoshal, S. (1989). *Managing Across Borders: The Transnational Solution.*Massachussetts: Harvard Business School Press

BBC (2013). Tesco offloads loss-making Fresh & Easy chain, accessed November 23, 2014 from: http://www.bbc.co.uk/news/business-24040346

Bloomberg (2014). Samsung Vietnam Phone Leap Has Farmhand Living a Dream, Retrieved November 1, 2014 from

http://www.bloomberg.com/news/2014-09-10/samsung-vietnam-phone-leap-has-farmhand-living-a-dream.html

Business Insider (2014). What It's Like Inside The Factory Where Samsung Builds Your Galaxy Phone, Retrieved November 1, 2014 from

http://www.businessinsider.com/samsung-gumi-factory-2014-5#ixzz3JWDncR1s

Cavusgil, S.T., Knight, G., and Riesenberger, J.R. (2012).International Business: The New *Realities,* 2nd edition. New Jersey: Pearson

Dunning, J.H .(1988).The eclectic paradigm of international production: a restatement and some possible extensions. *Journal of international business studies, 19(1), pp.1-31*

Eisenhardt, K.M. (1989).Building theories from case study research. Acadamy of Management Review, 14 (4), pp. 532–550

Gereffi, G & Humphrey, J & Sturgeon, T. (2005).The governance of global value chains. Review of International Political Economy 12, no. 1: 78–104.

Golini, R. and Kalchschmidt, M. (2011)Moderating the impact of global sourcing on inventories through supply chain management. *International Journal of Production Economics, 133 (1), pp. 86-94*

Harrison and Hoek (2011) Logistics Management & Strategy, 4th edition, Prentice Hall.

Hofstede, G. (2001). *Culture's Consequences: Comparing Values, Behaviours, Institutions, and Organizations across Nations*, 2nd edition. California: Sage Publications

Johnson, Leenders and Flynn (2011) Purchasing and Supply Management.*McGraw Hill, 14th Edition.*

Kim, Youngsoo (1997) Technological Capabilities and Samsung Electronics' International Production Network in Asia, Working Paper 106, BRIE

Kotabe, M. and Omura, G.S. (1989) Sourcing strategies of European and Japanese multinationals: a comparison.*Journal of International Business Studies, 20 (1) (1989), pp. 113–130*

Lee, Jungah and Folkmanis, Jason (2013) Samsung Shifts Plants From China to Protect Margins, Bloomberg, Retrieved October 30, 2014 from http://www.bloomberg.com/news/2013-12-11/samsung-shifts-plants-from-china-to-protect-margins.html

Murray, J.Y., Kotabe, M., and A.R. Wildt (1995a). Strategic and financial performance implications of global sourcing strategy: a contingency analysis. *Journal of International Business Studies, 26 (1) (1995), pp. 181–202*

Murray, J.Y., Wildt, A.R., Kotabe, M. (1995b) Global sourcing strategies of US subsidiaries of foreign multinationals. *Management International Review, 35 (4) (1995), pp. 307–324*

Osland, G.E., Taylor, C.R., Zou, S. (2001). Selecting international modes of entry and expansion, *Marketing Intelligence and Planning,19*(3), 153 - 161

Reach for the Skies Report (2014). Industry and Government working together to secure the future for UK Aerospace: A Strategic Vision for UK Aerospace. *ADS, Aerospace Growth Partnership, and Department for Business Innovation & Skills.*

Roh, J.J., Min, H., Hong, P. (2011) A co-ordination theory approach to restructuring the supply chain: an empirical study from the focal company perspective, *International Journal of Production Research*, 49, pp.4517-4541.

Rossetti, C., and Choi, Y. T., (2005) On the dark side of strategic sourcing: experiences from the Aerospace Industry, *Academy of Management Executives, Vol. 19, No.*

Palmer, M. (2005) Retailing multinational learning: a case study of Tesco, *International Journal of Retail & Distribution Management, 33*(1), 23 – 48

Samsung (2010) Samsung's annual report 2010,

Samsung (2014 a) Sustainability Report 2014, Retrieved November 1, 2014 from http://www.samsung.com/us/aboutsamsung/sustainability/sustainabilityreports/sustainabilityreports2014.pdf

Samsung (2014 b) Samsung Business Report 2014 Q1, Retrieved November 2, 2014 http://www.samsung.com/us/aboutsamsung/investor_relations/financial_information/business_report.html

Samsung (2014c) Business Overview, Retrieved November 2, 2014 fromhttp://www.samsung.com/global/business/semiconductor/aboutus/business/factsheet

Samsung (2014d) About Samsung India, Retrieved November 1, 2014 from http://www.samsung.com/in/aboutsamsung/samsungelectronics/india/manufacturing.html

Samsung (2014e) Business Overview, Retrieved November 1, 2014 from

http://www.samsung.com/global/business/semiconductor/aboutus/business/factsheet

Samsung .(2014f) About Samsung, Retrieved November 1, 2014 from

http://www.samsung.com/us/aboutsamsung/corporateprofile/history04.html

Samsung (2011) Samsung Electronics' Business Report Q2 2011, Retrieved October 30, 2014 from http://www.samsung.com/us/aboutsamsung/investor_relations/financial_information/business_report.html

Samsung (2013a) Sustainability Report 2013, Retrieved November 1, 2014 from http://www.samsung.com/common/aboutsamsung/download/companyreports/2013_Sustainability_Report.pdf

Samsung (2013b) Samsung Electronics Annual Report 2013, Retrieved November 1, 2014 from

Samsung (1989) *Samsung Junja 20-nyun-sa* (The 20 Year History of Samsung Electronics), Seoul.

Telegraph (2013). Tesco's Fresh & Easy: a timeline in pictures, accessed November 23, 2014 from:http://www.telegraph.co.uk/finance/newsbysector/retailandconsumer/10299870/Tescos-Fresh-and-Easy-a-timeline-in-pictures.html?frame=2537629

Tesco PLC (n.d.) Tesco Czech Republic, accessed November 23, 2014 from: http://www.tescoplc.com/index.asp?pageid=332

Tesco PLC (n.d.) Tesco Hungary, accessed November 23, 2014 from http://www.tescoplc.com/index.asp?pageid=340

Tesco PLC (n.d.) Tesco Ireland, accessed November 23, 2014 from: http://www.tescoplc.com/index.asp?pageid=348

Tesco PLC (n.d.) Tesco Lotus, accessed November 23, 2014 from http://www.tescoplc.com/index.asp?pageid=324

The Guardian (2011). Tesco admits defeat and pulls out of Japan, accessed November 23, 2014 from: http://www.theguardian.com/business/2011/aug/31/tesco-japan-pull-out-philip-clarke

The Guardian (2013) Tesco puts US chain Fresh n Easy into bankruptcy, accessed November 23, 2014 from: http://www.theguardian.com/business/2013/oct/01/tesco-us-chain-fresh-easy-bankruptcy

Time (2013). Tale of Two Supermarkets: Why Fresh & Easy Flopped and Fairway Flies High, accessed November 23, 2014 from: http://business.time.com/2013/04/18/tale-of-two-supermarkets-why-fresh-easy-flopped-and-fairway-flies-high/

Wall Street Journal (2014) Samsung Considers Cellphone Production in Indonesia, Wall Street Journal, Retrieved October 30, 2014 from http://online.wsj.com/articles/samsung-considers-cellphone-production-in-indonesia-1408364492?

Waters, D (2009). *Supply Chain Management: An Introduction to Logistics*, 2nd edition. Basingstoke: Palgrave Macmillan

Zaheer, S. (1995) Overcoming the Liability of Foreignness, *Academy of Management Journal, 38*(2), 341 - 363