Foreign Direct Investment from China: Implications for British Business Partners

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Abstract

Multinational enterprises from developing economies have been reshaping the global investment landscape since the early 2000s. In particular, companies from China have become increasingly significant outward investors. In fact China is currently the third largest outward investor in the world (UNCTAD 2013). As a relatively new phenomenon the outward investment of Chinese multinationals has not been researched comprehensively. This is especially true of Chinese multinationals undertaking investment activities in advanced economies.

Therefore the aim of this research is to extend our knowledge of the investment behaviour of Chinese multinationals in advanced economies. This is achieved through the examination of their reasons for investment, selected entry modes and effects on British business partners. This research takes a multiple case study approach consisting of nine Chinese multinationals from the automotive, manufacturing, IT, telecommunications and medical device sectors. As a qualitative study it is principally based on interview data but also draws on quantitative evidence where appropriate.

The findings of this research suggest that the examined firms had diverse competitive advantages and investment motives. The effects of their investments were also varied because they were determined by the MNEs' investment motives and modes of entry. The strategic asset-seeking investors significantly improved the companies they acquired. They also intensified research and development activities in external partner organisations. Meanwhile the asset-exploiting investors improved consumer welfare, intensified competition in their sectors and generated high value-added business opportunities for British partners at home and abroad.

The generally positive effects of Chinese FDI imply that UK policy-makers may wish to step up their efforts to attract further investment from China. The diverse nature of Chinese companies indicates that investment promotion agencies could develop a differentiated strategy to encourage Chinese investors. In addition the benefits derived from collaborating with Chinese multinationals suggest that British firms could be more proactive in forging relationships with them.

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List of abbreviations

CHMTI	Chongqing Machine Tool Industry
CIS	Commonwealth of Independent States
CNC	Computer Numerical Control
CQME	Chongqing Machinery and Electric
CSA	Country-Specific Advantage
EU	European Union
FDI	Foreign Direct Investment
FSA	Firm-Specific Advantage
GDP	Gross Domestic Product
HVDC	High Voltage Direct Current
IGBT	Insulated-Gate Bipolar Transistor
IPA	Investment Promotion Agency
IPR	Intellectual Property Rights
JV	Joint Venture
KTP	Knowledge Transfer Partnership
LLL	Linkage, Leverage, Learning
M&A	Merger and Acquisition
MNE	Multinational Enterprise
OBM	Own-Brand Manufacturing
OECD	Organisation for Economic Cooperation and Development
OEM	Own Equipment Manufacturing
OFDI	Outward Foreign Direct investment
OLI	Ownership, Location, Internalisation
PTG	Precision Technology Group
R&D	Research and Development
SAIC	Shanghai Automotive Industry Corporation
SME	Small and Medium Enterprise
SMTC UK	Shanghai Motor Technical Centre UK
SOE	State-Owned Enterprise
WTO	World Trade Organisation

1. Introduction

Initially the international expansion of firms was dominated by multinational enterprises from the most advanced countries in the world. The origins of the modern multinational enterprise (MNE) date back to the late 19th century when companies from Britain, North America and continental Europe began to extend their activities beyond national borders (Guillen, Garcia-Canal 2009). Their pre-eminence continued until the 1970s when the existing population of multinationals was joined by firms from Japan.

The domination of developed country multinationals continued into the 1990s when the advanced economies of Europe, the US and East Asia were key sources and recipients of global foreign direct investment (FDI). Between 1990 and 2000 these regions accounted for 65%-70% of all FDI flows (Hirst, Thompson & Bromley 2009). Unsurprisingly, most of the globally renowned multinational enterprises such as Sony, Siemens and McDonalds originated from the advanced economies of Japan, Germany and the US respectively.

However the global investment environment began to change during the 2000s with the increasing significance of emerging markets. Initially emerging markets rose to prominence as investment destinations for advanced economy MNEs. Many multinationals from developed countries set up operations in one of the BRIC countries (Brazil, Russia, India and China). For example Japanese electronics companies set up production lines in China, US software companies established research and development (R&D) facilities in India, while British banks acquired financial institutions in Brazil.

Developing countries have become increasingly important investment destinations for foreign investors in the last decade. In 2005 they hosted 36% of total global inward FDI (UNCTAD 2006) while the latest figures show that they now host 45% (UNCTAD 2012). In particular China's position as a host country for FDI has changed dramatically since the late 1970s when the country's economic reforms began. In the last 40 years China has evolved from being a modest recipient of FDI to being the largest recipient of FDI amongst developing and transitional economies, and the second largest recipient of FDI in the world (UNCTAD 2013).

Developing countries are not only key destinations for foreign investment but they are also becoming increasingly significant sources of FDI. In 2005 outward investment from developing economies represented 15% of total global outward flows (UNCTAD 2006) but in 2012 they accounted for 31% (UNCTAD 2013). China's outward investment was limited until the early 2000s. The introduction of the 'Going Out' policy by the Chinese government in 1999 encouraged and supported successful Chinese enterprises to internationalise. By this time Chinese companies had accumulated sufficient capital to invest overseas as a result of the sweeping economic reforms that had taken effect.

The rapid growth of China's outward investment is illustrated by increases in both outward investment stock and flows. Its outward FDI stock grew from USD 29.9 billion in 2002 to USD 317.21 billion in 2010. Similarly, China's outward FDI flows increased from USD 2.7 billion in 2002 to USD 68.81 billion in 2010 (Ministry of Commerce, People's Republic of China 2011a). Chinese outward investment is mostly directed towards developing countries in Asia, Latin America and Africa (Ministry of Commerce, People's Republic of China 2010). Although overall levels of Chinese investment in Europe are comparatively lower, they have increased significantly since 2005. FDI flows into the European Union (EU) increased from USD 189.54 million in 2005 to USD 5,963.06 million in 2010 (Ministry of Commerce, People's Republic of China 2011a).

Most Chinese investment in Europe is hosted by Germany, France and the United Kingdom (Hanemann, Rosen 2012). Germany and the UK were the leading European destinations for Chinese investors in 2009. During that year Germany received 29% while the UK received 27% of Chinese investment in Europe (Knoerich 2012). Given the rapid increase in Chinese investment in Europe and the significance of the UK as one of the leading destinations for Chinese investors, this research focuses on the investment behaviour of Chinese multinationals and its implications. In particular it investigates the extent to which the investment motives and investment modes displayed by Chinese MNEs influence the effects of their investments on British business partners. As the presence of Chinese multinationals in the UK is a relatively recent phenomenon our understanding of the effects of their investments has been limited. This study develops an in-depth

understanding of these effects so that policy-makers and businesses in the UK can maximise the opportunities provided by Chinese investors.

1.1. Conceptual framework

This research relies upon a conceptual framework developed on the basis of links that exist between investment motives, modes and effects of Chinese multinationals. Their internationalisation motives can be explained by combining two opposing perspectives.

The first perspective proposes that firms internationalise on the basis of ownership (Dunning 1993, 2000) or firm-specific advantages (Rugman 2008b). Dunning's OLI theory was developed to explain the internationalisation behaviour of firms from advanced economies. According to Dunning a firm will internationalise if: it has superior ownership advantages compared to competitors in the host country; the host country offers advantages that are unavailable in the firm's home country; and it is more cost-effective for the international activities to be conducted internally rather than outsourcing them to a third party organisation.

Similarly Rugman suggests that North American, European and Japanese MNEs expand internationally on the basis of firm-specific advantages (FSAs). A firm specific advantage is a unique proprietary capability which can be based on technology, knowledge, managerial or marketing skills (Rugman 2007). According to Rugman firms that wish to internationalise need to have one of more of these firm-specific advantages. On the other hand firms may also expand abroad on the basis of country-specific advantages (CSAs). A country-specific advantage is unique to the business in each country and can be based on natural resources, labour or cultural factors. Firms that internationalise on the basis of country factors instead of firm factors are not considered to be "truly internationalized" (Rugman 2007): P.12. Although the perspective based on competitive advantages was developed with advanced economy MNEs in mind, it is used in this research to explain the internationalisation behaviour of Chinese MNEs which have such advantages.

The second perspective argues that firms internationalise in order to acquire new competitive advantages (Guillen, Garcia-Canal 2009, Luo, Tung 2007, Mathews 2006b). The Linkage, Leverage and Learning (LLL) framework was developed by Mathews to explain the internationalisation behaviour of firms from emerging markets (Mathews 2006b). According to Mathews, firms internationalise in order to absorb new skills and knowledge from advanced multinationals. The main assumption of this perspective is that emerging market firms internationalise in order to compensate for their competitive disadvantages (Guillen, Garcia-Canal 2009, Luo, Tung 2007). This research uses the perspective based on competitive disadvantages to explain the internationalisation behaviour of Chinese MNEs that lack such advantages.

This study combines both viewpoints to provide an understanding of the motivational aspects of their investment activities in the UK. The first perspective explains the investment behaviour of the Chinese companies that already possess strong competitive advantages, while the second underpins the investment behaviour of those that lack these advantages.

Empirical evidence points to a link between investment motives and investment modes. Namely investment motives play a significant role in determining the type of entry mode selected by Chinese multinationals when investing overseas (Cui, Jiang 2009, Deng 2007). Hence this research argues that the investment motivations and investment modes displayed by Chinese MNEs significantly influence the effects of their investments on British business partners.

1.2. Research problem

Gaps in existing research relate to two aspects of Chinese multinationals: their competitive advantages and the effects of their investments on advanced host economies.

The two leading theoretical perspectives described in the previous section have one major issue – they assume that firms from emerging markets either possess or lack competitive advantages. Namely the first perspective assumes that they already possess certain competitive advantages (Dunning 1993, Rugman 2008a),

while the second perspective assumes that they lack them (Guillen, Garcia-Canal 2009, Luo, Tung 2007, Mathews 2006b). The first contribution of this thesis is therefore to provide an in-depth examination of the competitive advantages and investment motives of Chinese multinationals. In doing so it contributes to the wider theoretical literature on the internationalisation of emerging market multinationals.

Existing research on the effects of foreign investment focuses on investments in developing countries. Some of the studies examine involuntary knowledge transfer from advanced economy MNEs to domestic firms (Buckley, Clegg & Wang 2002, Chuang, Lin 1999, Guo, Veugelers 2006), while others concentrate on voluntary knowledge transfer through technological (Fang et al. 2002) and supplier relationships (Duanmu, Fai 2007, Guerrieri, Iammarino & Pietrobelli 2001, Ivarsson, Alvstam 2009, Ivarsson, Alvstam 2011).

However the availability of empirical studies focused on the effects of emerging market MNEs on advanced economies is limited. Existing research considers general economic implications such as capital inflows (Hanemann, Rosen 2012, Tiwari, Herstatt 2009); employment (Hanemann, Rosen 2012, Xu, Petersen & Wang 2012); competition (Milelli, Hay & Shi 2010) and consumer welfare (Pradhan 2007, Charlie 2012). In addition several studies on Chinese acquisitions in Europe have been undertaken (Nicolas 2012, Knoerich 2010, Gentile-Ludecke 2013) but overall the research conducted to date is unable to provide comprehensive understanding of this new phenomenon. The same is true of the effects of Chinese investment in the UK which have not yet been researched.

Therefore the second contribution of this thesis is to provide detailed insight into the investment effects of Chinese enterprises in the UK through the use of firm-level data. This is achieved by examining the extent to which the investment motives and investment modes displayed by Chinese MNEs influence the effects of their investments on British business partners.

The present study seeks to address theoretical gaps relating to competitive advantages and investment motives of Chinese multinationals in the UK. A deeper understanding of the companies' investment motives together with their

investment modes helps to advance our knowledge of the effects of their investments. In doing so, this study also fills empirical gaps in existing literature on the effects of Chinese investment on developed host countries.

1.3. Research question, aim and objectives

This thesis is guided by the following research question:
'To what extent do the investment motives and investment modes displayed by Chinese MNEs influence the effects of their investments on British business partners?'

Thus the overall aim of this thesis is to understand the degree to which the investment motives and investment modes displayed by Chinese MNEs influence the effects of their investments on British business partners. The study seeks to achieve this aim by addressing the following research objectives:

1. To examine the investment motives of Chinese multinationals in the UK. The findings will be analysed in the context of existing theoretical and empirical research on Chinese outward investment motives.

2. To understand their investment modes and the challenges encountered. This study seeks to build an understanding of the forms of investment employed by Chinese multinationals in order to achieve their aims. It also examines the difficulties they face in the process.

3. To identify the effects of Chinese investment on acquired companies, partner organisations, competitors and customers. This research seeks to identify business partners that are most affected and to ascertain the extent to which these effects are beneficial.

1.4. Method

This thesis employs a multiple case study approach using principally qualitative data. The case study method is useful for investigating a phenomenon in a real-life context when the distinction between the observed phenomenon and its context

are unclear (Yin 2003). The multiple case study is a version of the case study method that includes two or more observations or cases. The case study method is particularly useful for the development of inductive theory. Its key strength is the ability to provide a detailed understanding of a certain phenomenon in a specific context (Lewis-Beck, Bryman & Liao 2004).

This research is based on nine case studies of Chinese knowledge intensive enterprises that have undertaken investment activities in the UK, three of which are in-depth. The companies come from a range of sectors including manufacturing, automotive, IT, medical devices and telecommunications. The case study companies vary in size and ownership structure. Their sizes range from medium to large, while their ownership structure varies between private, public and state-owned. The process of selecting individual cases was based on their availability and willingness to participate. The data used for the purpose of this research draws on both primary and secondary sources.

Primary data was collected mainly from participating Chinese multinationals. It is supplemented by data from British companies that have partnered with Chinese firms and therefore have insight into their investment activities. The study also includes primary data from UK government agencies responsible for attracting and supporting inward investment from China. A total of 23 in-depth interviews were carried out during the course of 2012. The interviews were conducted in English because many of the employees were native English speakers. Interviewees who spoke English as a second language were proficient English speakers so it was unnecessary to use an interpreter. The interviews were guided by a semi-structured interview schedule because of the explorative nature of the study.

The primary data gathered by means of interviews was complemented by the use of secondary data. Secondary data was collected from a combination of freely available public resources and subscription-based databases. This data was collated from a variety of sources including company websites, annual reports, newsletters and presentations; economic publications such as the Economist and the Financial Times; specialised trade magazines; and British and Chinese news portals.

The data was analysed using thematic analysis which involves the categorisation of qualitative data into themes. Initially the data was coded or organised into categories. The coding was then used as a basis for identifying themes and theory building. The process of coding and theme identification was conducted using the NVIVO software package which enabled tasks to be completed efficiently and accurately. Thematic analysis was carried out within and across the case study firms as well as across the remainder of non-Chinese organisations included in this study.

1.5. Thesis outline

The introductory chapter is followed by the literature review, chapter two, which introduces fundamental definitions and types of FDI. It highlights the globalised nature of cross-border investment and the increasing significance of developing and transitional economies in international FDI flows. This chapter provides an overview of FDI in China and shows how foreign MNEs contributed towards the modernisation and development of the domestic sector. This chapter also discusses outward investment from China through an examination of the investment motives, modes and effects on host economies. Finally, it introduces the conceptual framework underpinning this research.

Chapter three discusses the methodological aspects of this study. It outlines the philosophical assumptions of this research as well as the ways in which the data was collected and analysed. This chapter presents the ontological, epistemological, axiological and methodological positions of this study. It also explains how the research was carried out by describing the techniques used for data collection and analysis.

Chapter four provides an in-depth examination of the case of SAIC (Shanghai Automotive Industry Corporation) and its acquisition of MG Rover's legacy. Chapter five investigates in detail the case of Chongqing Machinery and Electric (CQME) and its acquisition of PTG, while chapter six explores the case of Zhuzhou CSR Times and its acquisition of Dynex. Chapter seven examines another six Chinese firms (Changan, Weigao, Mindray, TP Link, Hytera and Vanceinfo). All four of the case study chapters investigate the investment motives

of the Chinese companies, their chosen investment modes and the challenges they encountered. These chapters also explore the effects of Chinese investments on acquired firms, local partner organisations, competitors and customers.

Chapter eight discusses the findings of this study in light of existing theory and empirical research. The chapter presents findings across three main themes: investment motivations, investment modes and investment effects. Chapter eight links these three themes together to clarify the degree to which the investment motives and investment modes displayed by Chinese MNEs influence the effects of their investments on British partner organisations.

Chapter nine brings together the conclusions of this study. It restates its relevance in light of the latest developments in Chinese outward investment. The chapter also reiterates the aims and objectives of this research. It emphasises the study's contribution to knowledge and outlines the implications of its findings for policymakers, investment promotion agencies as well as British firms.

2. Literature review

This chapter provides an overview of the literature relevant to outward investment of Chinese multinationals in advanced economies and it is divided into five sections. The first section on foreign direct investment introduces fundamental definitions and types of FDI. It highlights the globalised nature of cross-border investment and increasing significance of developing and transitional economies in international FDI flows.

The second section focuses on FDI in China. It provides an overview of current investment trends and shows how foreign investment in China contributed towards the development of the domestic sector. Spillovers and linkages facilitated knowledge transfer from foreign MNEs to local enterprises. However the ability of Chinese enterprises to exploit available knowledge depended on their absorptive capacity. This section highlights the role FDI in the development of domestic enterprises up to a point where they could undertake international investment activities themselves.

The third section discusses outward investment from China. It outlines key trends in Chinese investment in both developed and developing countries. This section examines existing literature on motives, modes and effects of Chinese investment on host countries. The discussion of literature around these themes is aligned with the three research objectives outlined in the introductory chapter. It creates a framework for understanding the role of investment motives and modes in determining the effects of Chinese FDI on advanced host economies.

The fourth section develops the conceptual framework on the basis of the literature reviewed in the previous section. It uncovers links between investment motives, modes and effects of Chinese multinationals to form the basis of this research. The conceptual framework enables analysis of case study data according to the identified themes, with the overall aim of providing an answer to the main research question. The chapter closes with a concluding remarks section which summarises its key points.

2.1. Foreign direct investment

2.1.1. Definition

According to the OECD foreign direct investment (FDI) occurs when the resident of one economy (the direct investor) establishes a lasting interest in an enterprise (the direct investment enterprise) that is resident in an economy other than that of the direct investor. A strategic long-term relationship is formed between the two enterprises whereby the direct investor has a significant degree of influence over the management of the direct investment enterprise (OECD 2008). The direct investor needs to have at least 10% of the voting power in the direct investment enterprise in order to demonstrate a lasting interest.

FDI differs from indirect or portfolio investment in the degree of management influence exercised by the investor. In the case of indirect investment, the investor does not participate in the management of the investment enterprise. This type of investment is motivated solely by financial gain and is undertaken through acquisition of company shares or bonds.

2.1.2. Types of FDI

There are two main types of FDI (Hill 2007). The first is greenfield investment which represents the establishment of a new operation in a foreign country. The second is sometimes referred to as brownfield investment and involves the acquisition or merging with an existing company in a foreign country. Although mergers and acquisitions have high failure rates they are often the entry strategy of choice for MNEs. They take less time to execute and are considered to carry less risk than greenfield investments.

2.1.3. FDI in a globalised economy

The environment in which FDI takes place today is highly globalised. This means that the interdependence among people from around the world is increasing. World economies have become increasingly integrated because barriers to the movement of people, capital, technology and trade have been reduced (Daniels, Radebaugh & Sullivan 2011). It is not unusual for a company to be headquartered in one country, for its products to be made in a number of different countries and

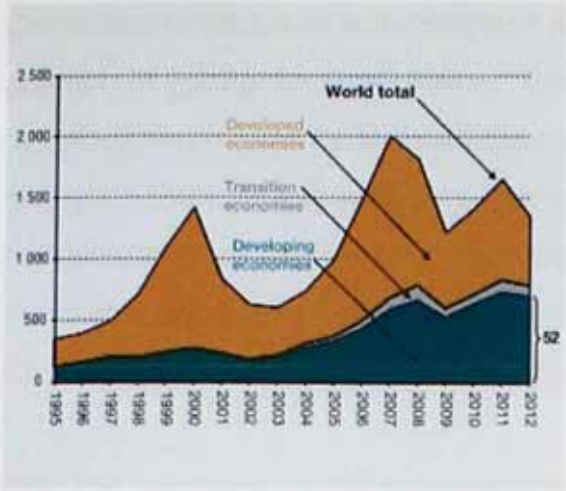
for the final product to be sold to customers all over the world. A good illustration of a typically globalised company is that of Kia, a Korean car manufacturer. Its cd players are made by a Japanese company. Parts of the cd player are made in China while others are made in Thailand. Assembly is done in Mexico and finished cd players are then transported to the US. They are then shipped to Korea where they are fitted into new vehicles and sold all around the world.

The intensification of cross-border investment means that local companies are facing intense competition from domestic and foreign rivals in their home markets. Consequently domestic companies are increasingly looking to foreign markets with the intention of defending market share at home or increasing market share in overseas markets.

2.1.4. Current FDI trends

Historically FDI was dominated by multinational enterprises (MNEs) from Europe, US and East Asia. Between 1990 and 2000 these regions accounted for between 65% and 70% of all FDI flows (Hirst, Thompson & Bromley 2009).
Although advanced economies still play a significant part in global FDI flows, developing countries are taking an increasingly prominent role. In 2005 developing countries accounted for 36% of total global inward FDI (UNCTAD 2006) while the latest figures show they accounted for 52% in 2012 (UNCTAD 2013). The graph below illustrates the growing significance of developing countries in total global FDI inflows. This is particularly relevant from 2003 to 2012 when the share of developing countries in global FDI flows grew steadily.

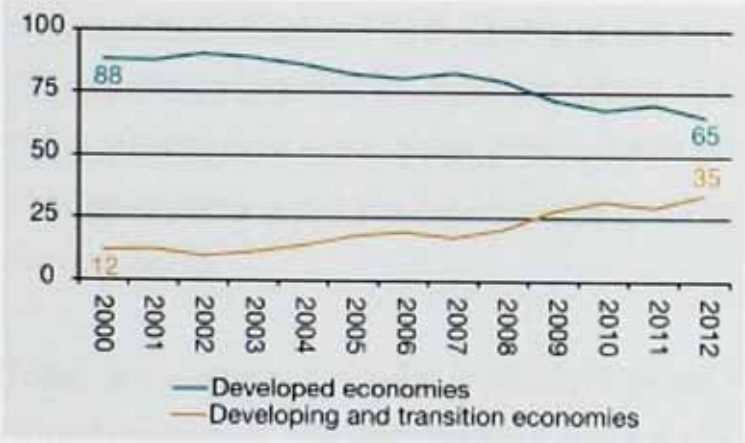
Figure 1 - FDI inflows, global and by group of economies 1995-2012 (USD bill.)



Source: (UNCTAD 2013)

Developing countries are not only major recipients but are also major sources of FDI. In 2005 outward investment from developing economies and transitional economies represented 15% of total global outward investment flows (UNCTAD 2006), while in 2012 they accounted for 31% (UNCTAD 2013). The figure below illustrates the growing significance of developing and transitional economies in total global FDI outflows. This is particularly relevant for the period between 2003 and 2012 which shows a steady increase in FDI outflows from these countries. In contrast the share of outward investment from developed economies has experienced a decline during this period.

Figure 2 - Share of major economic groups in FDI outflows 2000-2011 (%)



Source: (UNCTAD 2013)

2.2. FDI in China

China has undertaken a remarkable journey from a position of isolation to a position of economic superpower. The rapid pace of China's economic development makes its story all the more interesting. Foreign investment in China has gone through extraordinary changes from 1978 until the present. Between the establishment of the Peoples' Republic of China in 1949 and the beginning of the economic reforms in 1978 there was hardly any inward investment at all. Today China is the second largest recipient of FDI in the world (UNCTAD 2013).

With the beginning of the economic reforms in 1978, the Chinese government undertook extensive measures to attract FDI into China. In 1979 a Joint Venture Law was adopted and four Special Economic Zones in Guangdong and Fujian provinces were established (Luo 2000). Several years later, in 1984, 14 coastal cities were opened to FDI which attracted more investors to other coastal regions. In 1986 the government issued 'Provisions for the Encouragement of Foreign Investment' followed by numerous central and municipal regulations to ensure their implementation.

The effects of the reforms are reflected in the country's rapid economic growth and increased levels of FDI. China's Gross Domestic Product (GDP) increased by an average of 9% between 1978 and 2000 while inward FDI also showed a significant increase accounting for an average of 9.35% of the country's GDP between 1984 and 2000 (Phelps, Raines 2003). During the 1990s the Chinese government continued to encourage FDI through a series of commercial laws and regulations. Consequently FDI levels increased reaching 11 billion in 1992 and have continued to rise steadily ever since. From 2000 to 2009 FDI flows were higher than in any other developing or transitional economy reaching a record 108 billion in 2008 (Davies 2012).

Today, according to the world investment report, China is the world's second largest recipient of FDI after the USA and the top host economy amongst developing and transitional economies (UNCTAD 2013).

Figure 3 - Top 20 host economies 2012 (USD bill.)

Source: (UNCTAD 2013)

The Chinese government encourages international trade and investment as key drivers of economic development. It was especially keen to attract FDI during the period of economic reforms as this was seen as an effective way of importing modern technology, management and marketing skills into the country.

2.2.1. Effects of FDI on domestic enterprises

Widespread FDI in China during the last two decades has generated a great deal of academic interest. Researchers have been particularly interested in the role of FDI in the development of domestic enterprises. The effects of foreign investment have been widely studied through literature on voluntary and involuntary knowledge transfer from foreign multinationals to Chinese firms. Knowledge can be transferred intentionally through the formation of linkages between foreign multinationals and domestic enterprises in the form of technological or supplier relationships. It can also be transferred unintentionally when foreign multinationals are unable to restrict knowledge from diffusing to local firms. This form of knowledge transfer is known as a spillover or an externality.

2.2.1.1. Spillovers

There are two types of spillovers - productivity and market access spillovers (Blomstrom, Kokko & Zejan 2000). Positive productivity spillovers occur when local

firms raise their productivity levels as a result of foreign MNE presence. This happens when domestic firms forge buyer or supplier relationships with foreign MNEs; imitate MNE technologies; hire former MNE employees or become more innovative and raise their game in response to competitive pressures from foreign companies. Productivity spillovers that affect domestic competitors are known as horizontal spillovers while those that affect domestic suppliers and customers are referred to as vertical spillovers (Liebscher et al. 2007).

The presence of foreign investors does not always have positive effects however. Negative productivity spillovers occur when the presence of foreign MNEs has adverse effects on domestic firms' productivity levels. This may occur when skilled employees are hired away from domestic firms. Another reason for lower productivity is loss of market share to foreign competitors. If demand is reduced local firms are forced to reduce production levels. This will increase their fixed costs thus resulting in lower levels of productivity (Aitken, Harrison 1999).

Market access spillovers occur when domestic firms benefit from the knowledge and experience of international markets embedded in MNEs. This may be in the form of expertise in international marketing or simply sharing information about a particular overseas market. An example of this is a Chinese firm that uses a foreign MNE's already established distribution channels to sell its products in a foreign market. Development of its own distribution channels requires significant investment and local market knowledge which may take years to develop.

There is evidence that FDI generates technological and market access spillovers for domestic firms in China. An investigation into the effects of FDI on Chinese manufacturing companies finds support for both types of spillovers. Domestic enterprises acquired the ability to develop new products and to access international markets through their relationships with foreign MNEs (Buckley, Clegg & Wang 2002). A further study using firm level data from Taiwan has similar findings. It shows that FDI positively influences domestic firm productivity in Taiwanese companies (Chuang, Lin 1999).

However not all researchers agree that higher levels of productivity are achieved through the presence of foreign MNEs. Empirical findings show that high

technology FDI does not have strong positive effects on productivity of local firms. Instead firms' own R&D efforts are shown to be more important for raising productivity (Guo, Veugelers 2006).

2.2.1.2. Linkages

Knowledge can also be transferred to local enterprises through the formation of relationships with foreign multinationals. Technological and supplier relationships have in particular shown to be effective mechanisms for transferring knowledge from foreign multinationals to domestic enterprises. Evidence from Taiwan demonstrates that technological collaboration between foreign R&D centres and Taiwanese research institutes led to increased knowledge flows towards the local research organisations (Fang et al. 2002).

Although it has been argued that Chinese firms entering into supplier relationships with foreign MNEs are less likely to derive technological benefits than those involved in technological relationships (Sun, Du 2011), numerous studies have demonstrated that foreign MNEs are in fact valuable sources of knowledge for Chinese suppliers.

A case study examining the relationship between MNEs and Chinese suppliers shows that both tangible and intangible technology can be transferred through this type of interaction (Duanmu, Fai 2007). During the initial stages of the relationship the MNE transfers explicit and relatively simple technical knowledge to the supplier in the form of blueprints and manuals so that production can begin. But as time goes on more intangible forms of technology are transferred such as skills, techniques and managerial practices.

Further evidence of knowledge transfer is seen in the interaction between Japanese multinationals and their Taiwanese suppliers in the electronics industry (Guerrieri, Iammarino & Pietrobelli 2001). The relationship exposed Taiwanese workers and managers to new organisational practices which were quite different to existing traditional authoritarian management practices. In addition the introduction of international quality standards spurred widespread learning across a range of domestic firms.

Moreover a firm-level study of the interaction between Swedish MNEs and their local suppliers in China, India, Brazil and Mexico finds positive evidence of knowledge transfer. The technological assistance provided by the MNEs facilitated the diffusion of product and process technology to local suppliers (Ivarsson, Alvstam 2009).

IKEA was found to be a source of technological knowledge for its suppliers in China and Southeast Asia. The suppliers improved their "operational" capability by using new raw materials, equipment, machinery and management techniques. They also improved their "duplicative" capability by learning to expand and rationalise production. Their "adaptive" capability was also enhanced by learning to make new products and by IKEA's process requirements. Finally the suppliers' "innovative" capability was enhanced by developing and designing their own new products (Ivarsson, Alvstam 2011).

2.2.1.3. Limiting factors

The presence of foreign multinationals in China does not automatically lead to the transfer of knowledge to domestic enterprises. The extent to which local firms are able to capture knowledge from MNEs depends on their ability to recognise, assimilate and apply new knowledge. This capability is referred to as "absorptive capacity" and suggests that a sufficient knowledge base is required before an organisation is able to absorb new knowledge (Cohen, Levinthal 1990). A sufficient knowledge base can be developed by investing in internal R&D activities.

Evidence from the Chinese manufacturing sector demonstrates the importance of internal R&D activities for local firms intending to assimilate advanced knowledge from foreign MNEs. Existing studies show that internal R&D activities enable Chinese firms to utilise and apply knowledge from foreign MNEs more effectively (Li, Chen & Shapiro 2010; Sun 2002). Thus the ability of domestic companies to exploit knowledge from foreign multinationals is directly determined by their internal knowledge base. A Chinese firm with an active R&D department is more likely to capture knowledge benefits than a firm that is less focused on knowledge generating activities.

Foreign multinationals can also improve the innovative capacity of Chinese firms. However the strength of this influence depends on the absorptive capacity of domestic firms. For instance China's coastal regions receive knowledge intensive FDI and have a high concentration of highly skilled labour, universities and research institutes (Fu 2008). The strong knowledge base of domestic firms ensures their innovative capacity can be further improved through interaction with foreign MNEs. On the other hand, the situation is quite different in inland China where the absorptive capacity of Chinese firms is lower. Consequently local firms in this region are unable to maximise their relationships with foreign MNEs.

The presence of FDI can improve the ability of Chinese state-owned enterprises (SOEs) to innovate. But these benefits appear to be restricted to SOEs that engage in export, invest in human resources and undertake in-house R&D (Girma, Gong & Gorg 2009). In contrast SOEs that do not undertake in-house R&D have insufficient knowledge bases and low absorptive capacity levels. They are therefore unable to absorb new knowledge from foreign MNEs. Further evidence from Chinese high-industries suggests that the presence of foreign MNEs can significantly improve innovation performance of domestic enterprises (Liu, Zou 2008). However this is only possible for companies that have high levels of absorptive capacity as a result of deliberate learning efforts (Liu, Buck 2007).

2.2.2. Alternative approach

Despite widespread evidence pointing to positive knowledge transfer effects generated by FDI there are alternative views which emphasise the importance of internal efforts. According to the alternative approach, the development of Chinese firms is determined not by knowledge transfer from FDI but by internal R&D efforts. One such study finds that FDI does not have strong positive effects on productivity of local firms. Instead firms' own R&D efforts are shown to be more important for raising productivity (Guo, Veugelers 2006).

Moreover a study of four Chinese telecommunications companies argues that local firms should concentrate on self-developed technologies in order to catch up with leading MNEs (Fan 2006). The role of linkages with foreign MNEs is considered to be supplementary. This view finds further support in a study of

Chinese high-technology enterprises which advocates development through indigenous innovation rather than acquisition of Western technology (Guan et al. 2006). Evidence from ICT companies across Beijing, Shanghai and Shenzhen finds internal development to be the main source of technology rather than FDI (Lin et al. 2011).

2.3. Outward Investment from China

According to the 2010 Statistical Bulletin of China's Outward Foreign Direct Investment, China's outward investment flows reached 68.81 billion USD in 2010 which represents a 21.7% increase compared to 2009. Approximately 16,000 enterprises were set up across 178 countries worldwide by the end of 2010 (Ministry of Commerce, People's Republic of China 2011a). Meanwhile total outward FDI stock amounted to 317.21 billion USD. Both outward FDI flows and FDI stock have shown a steady increase from 2002 to 2010 as illustrated by the table below:

Figure 4 - China's FDI flows and stock 2002-2010 (USD bill.)

Year	flows	stock
2002	2.7	29.9
2003	2.85	33.2
2004	5.5	44.8
2005	12.26	57.2
2006	21.16	90.63
2007	26.51	117.91
2008	55.91	183.97
2009	56.53	245.75
2010	68.81	317.21

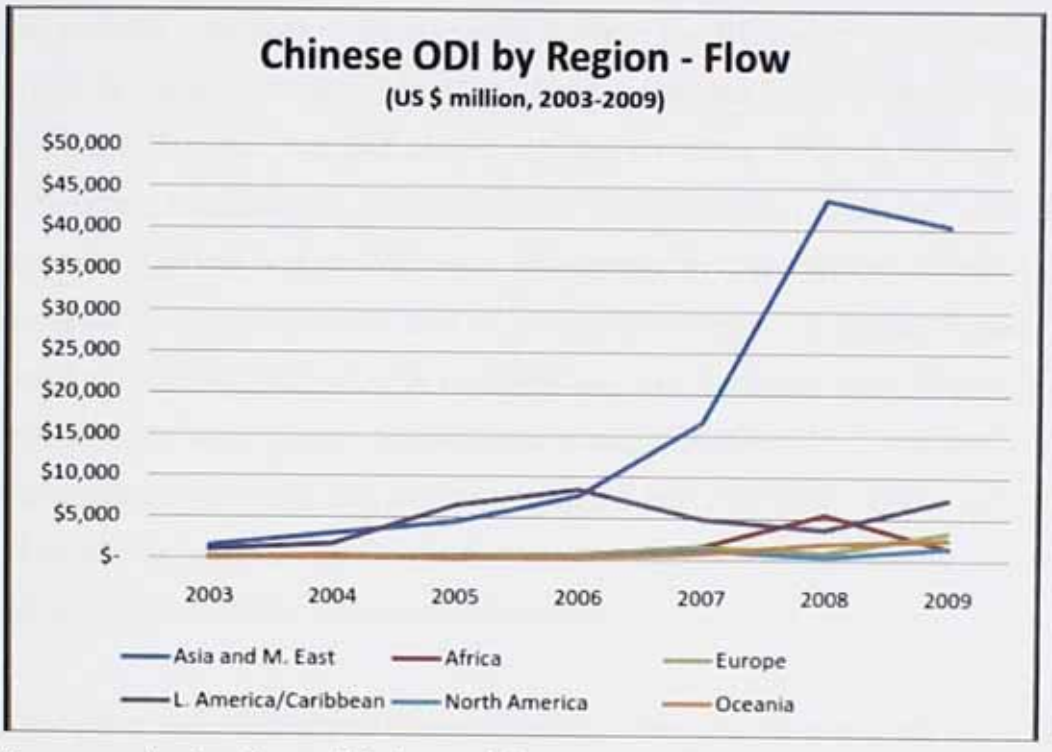
Source: (Ministry of Commerce, People's Republic of China 2011a)

Chinese overseas investments increased significantly between 2009 and 2010. Chinese companies invested in 3125 companies across 129 countries and regions in 2010. The value of their investments was 59 billion USD, representing a 36.3% increase compared to 2009 (Ministry of Commerce, People's Republic of China 2011a). The most recent official statistical report suggests that outward FDI has continued to increase at a slower pace after 2010. Chinese companies invested in

3,391 companies across 132 countries and regions in 2011. The value of their investments was 60.07 billion USD representing a 1.8% increase compared to 2010 (Ministry of Commerce, People's Republic of China 2011b).

The majority of Chinese investment abroad is directed towards developing and emerging countries. Chinese investments in Europe represent a small proportion of total Chinese OFDI (Outward Foreign Direct Investment) and total FDI into Europe. According to EUROSTAT data, investment from China accounts for a mere 0.03% of total FDI into EU member states as a whole (Clegg, Voss 2012). Investment from China presently accounts for 3.5% of total foreign direct investment in the European Union (Wheatley 2012). The chart below shows that Chinese investment in Asia, Latin America and more recently in Africa is substantially higher than in the European region.

Figure 5 - Chinese outbound investment flows by region 2003-2009 (USD mill.)



Source: adapted from (Ministry of Commerce, People's Republic of China 2010)

Despite the regional differences there has recently been a rapid increase in Chinese investment in Europe. Annual inward flows tripled from 2006 to 2009 and then tripled once more by 2011 amounting to 7.4 billion Euros (Hanemann, Rosen 2012). A steady increase in Chinese investment in Europe is illustrated by official statistics published by the Chinese government:

Table 1- Chinese FDI flows into the EU 2005-2010 (USD mill.)

Year	2005	2006	2007	2008	2009	2010
Value	189.54	128.73	1044.12	466.62	2966.43	5963.06

Source: (Ministry of Commerce, People's Republic of China 2011a)

Chinese investment in the EU is concentrated in the three largest states Germany, France and the United Kingdom (Hanemann, Rosen 2012). Germany and the UK were the leading European destinations for Chinese investors in 2009. During that year Germany received 29% while the UK received 27% of Chinese investment in Europe (Knoerich 2012). Other large European states such as Spain and Italy also attract a significant amount of Chinese investment whereas Eastern European member states attract less.

Chinese investments in Europe, however, are not confined to the EU. A study of Chinese investment into a group of non-EU countries shows that Chinese firms are making noteworthy investments outside the EU region (Apoteker 2012). The study examines Chinese investment in the Commonwealth of Independent States (CIS) and Turkey. The CIS states include Armenia, Belarus, Georgia, Kazakhstan, Kyrgystan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan. According to the findings Chinese investment in this region is driven by China's need for energy resources and is undertaken largely by SOEs. Russia is the leading recipient, followed by Kazakhstan and Turkmenistan. The majority of investments are directed towards the energy sector (67%), followed by the car and transport sector (9%) and the commodities and materials sector (8%). The range of locations selected by Chinese investors shows their versatility and openness towards very different investment environments.

There are indications that Chinese enterprises are investing across a wide range of industries rather than concentrating on a small group of strategic sectors (Hanemann, Rosen 2012). Sectors currently targeted by Chinese investors across Europe include electronics, metal products, machinery, automobile, textile-garment and banking/insurance (Milelli, Hay & Shi 2010).

Although the majority of companies from China are MNEs or SOEs there are also a significant number of small and medium enterprises (SMEs) operating in Europe.

A case study by Anja Fladrich examines the phenomenon of Chinese SMEs in Europe. Prato in Italy is a textile industrial district which has attracted a significant number of Chinese SMEs. There are currently 3,000 Chinese SMEs based in Prato. They are driven primarily by a desire to set up their own business and receive no support from the Chinese or Italian governments (Fladrich 2012). Their path to foreign investment is very different to that of SOEs and MNEs. They often arrive in Europe as migrant workers and fund their start-up business with loans from friends and family.

The phenomenon of Chinese overseas investment has recently attracted a great deal of attention in both Chinese and Western media. Chinese sources report on the acceleration of Chinese investment abroad, highlighting increasing levels of M&As in developed regions such as Europe and the US (Xinhuanet 2012c, 2012a, 2012b). Meanwhile Western sources have also written extensively on the subject (Backaler 2012, The Guardian 2012). Despite the popularity of this topic in mainstream media, there has not been a great deal of academic research on Chinese investment in the UK.

An early study on Chinese investment in the UK provides insight into the activities of Chinese SOEs in the late 1990s. At the time Chinese enterprises carried out small-scale operations in trading and financial services and were far from being major competitors in their respective industries (Young, Hood & Lu 1998). The development of enterprises was significantly influenced by the state. This is unsurprising given that the study was conducted prior to the implementation of the 'Going Out' policy when most Chinese outward investment was undertaken by state-owned enterprises.

The volume and structure of Chinese investment in the UK has changed somewhat since the late 1990s. Between 2000 and 2011, the UK was the second largest recipient of Chinese investment in Europe according to investment value. It received a total of USD 3,684 million, behind France with USD 5,722 million and ahead of Germany with USD 2,543 million over the ten year period (Hanemann, Rosen 2012). Chinese companies invested in 59 new investment projects in the UK, creating 1,500 jobs in the 2010/2011 financial year (Clegg, Voss 2011).

According to research conducted by Chatham House Chinese investment in the UK is mainly located in London and the North East (Burghart, Rossi 2009). More than half of Chinese investors are located in London while the rest are relatively equally spread across the North West, Yorkshire and Humber, East and West Midlands and the East (Clegg, Voss 2011). Most of the investments are concentrated in the manufacturing, financial and business service sectors (Burghart, Rossi 2009).

2.3.1. Investment motives

International business literature identifies four key motives which drive companies to invest abroad: resources, markets, efficiency and strategic assets (Dunning 1993). Resource seeking MNEs invest abroad to acquire resources that are not available in the home market or are available at a higher cost e.g. raw materials or unskilled low cost labour. Market seeking MNEs invest abroad to expand or defend their foreign market position. They may do this to: follow customers and suppliers; adapt goods/services to local preferences; avoid costs associated with serving a market from a distance or have a presence in the foreign market with the aim of discouraging potential competitors.

Efficiency seeking MNEs invest abroad to reduce overall production costs by reducing costs or increasing productivity. They do this by taking advantage of the availability and lower costs of inputs; economies of scale and scope; differences in consumer tastes and supply capabilities. Meanwhile strategic asset seeking MNEs invest abroad to acquire access to strategic assets such as technology, brands and distribution channels.

Similarly existing literature suggests that Chinese companies pursue a wide range of motives when investing overseas. A review of literature on investment motives suggests that Chinese firms can be natural asset-seeking, market-seeking, strategic asset-seeking, efficiency-seeking or diversification-seeking. The decision to invest overseas is influenced by one or more of these motives. A study by Buckley et al demonstrates how motivations of Chinese OFDI have changed over time (Buckley 2010). In the early stages Chinese firms were motivated by a need for natural resources and this driver still remains important. More recently they

have been motivated by market access in response to growing competitive pressure in the domestic market and the need to increase market share abroad. Chinese outward investment activities are also driven by strategic asset-seeking which involves gaining access to advanced technology, established brands, distribution channels and sources of foreign capital.

It appears that Chinese companies have moved on from investing abroad for the purpose of information gathering, supporting export or learning from joint venture partners. Today they seem to be pursuing a combination of natural assets, market access and strategic assets when investing abroad. Buckley et al believe that Chinese firms are unlikely to be motivated by efficiency-seeking gains abroad as they already benefit from relatively low production costs in their home market (Buckley 2010).

An exploration of Chinese and Indian firms, suggests that their investments abroad are motivated by access to natural resources, markets, strategic assets as well as efficiency gains (Athreye, Kapur 2009). The majority of these firms are motivated by access to overseas markets. Investing abroad rather than exporting provides improves market access and ensures avoidance of protectionist barriers in host countries.

They are also motivated by access to natural resources and raw materials. This is especially true of Chinese SOEs investing in energy and mining sectors overseas e.g. China National Petrol Corporation and China National Offshore Oil Corporation. Access to strategic assets is also an important driver for Chinese and Indian firms. Their investments abroad are fuelled by a need for technology, brands and distribution networks to improve their overall competitiveness. Finally some overseas investments are driven by economies of scope and scale which means that they are efficiency seeking.

Deng proposes that Chinese MNEs are driven by a combination of resource-seeking, market-seeking, strategic asset-seeking and diversification-seeking strategies (Deng 2003). Chinese MNEs are making significant resource seeking investments in both developed and developing countries. For example China Metallurgical Import and Export Corporation invested in the Channar Mine in

Australia is providing 200 tonnes of iron and ore for use in China. Chinese companies such as China Ocean Fishing Company also make significant investments in the fishing industry abroad. This company has established numerous business units in nearly twenty countries around the world such as the US, Iran and Argentina. Chinese resource-based investments are generally active in oil, minerals, forestry and fishing. Chinese companies also invest abroad for proprietary technology. A good example of this is China Bicycles Corporation in Shenzhen which bought a US bicycle company to gain access to its technology. The company is now a leading exporter of high specification bicycles for the US and European markets.

Many firms from China invest abroad to gain access to markets (Deng 2004). This is because some segments of the domestic market are already saturated and they are looking abroad for sales opportunities. Another reason for marketing-seeking investments is the existence of trade barriers for Chinese goods. Chinese companies are compelled to invest abroad when exporting is hindered by protectionist trade barriers imposed by countries such as the US. For example Haier, a Chinese domestic appliance company set up manufacturing facilities in the US to avoid quota restrictions and potential anti-dumping law suits. The plant mainly assembles appliances manufactured in China.

Some Chinese companies invest abroad for the purpose of diversification. This applies mostly to SOEs which are assisted by the government. One such example is Sinochem which successfully diversified by investing overseas. Initially its core business was petroleum and chemical fertilizers but now it has a presence in other sectors such as tourism, finance and consultancy in markets around the world. Finally some Chinese companies invest abroad to acquire strategic assets. They do this to acquire new knowledge and skills which will assist in enhancing their competitiveness. Again an example of this is Haier, a Chinese domestic appliances company which established numerous research institutes, development centres, advanced labs and design centres across the world in order to improve its competitiveness (Deng 2004).

Several case studies usefully illustrate the range of investment motives displayed by Chinese firms. The cases of Lenovo and BOE suggest that Chinese MNEs are

motivated by access to new markets, technologies and building strategic linkages (Liu, Buck 2009). Meanwhile Haier, China's largest producer of domestic appliances, was prompted to invest in the US for two main reasons. Firstly its CEO Zhang Ruimin wanted to develop Haier into a truly international company which required an international presence. Secondly, a US subsidiary would allow it to avoid trade barriers and escape the saturation and intensifying competition of the domestic home appliances market (Liu, Li 2002).

Further research observes that Chinese companies invest abroad in order to: access natural resources; foreign technology and know-how; and to avoid the saturation and competitiveness of their home market (Teagarden, Cai 2009). Meanwhile others highlight the need to defend and expand market share, secure natural resources, acquire advanced technology and management skills and exploit international opportunities (Zhang 2009).

The reviewed literature points to the striking range of investment motives displayed by Chinese investors. Some are interested in accessing natural and strategic resources while others are interested in accessing foreign markets, diversification or achieving greater efficiencies. Their decisions to internationalise are also driven by external factors such as host/home country environments or state interventionism.

A number of host and home country factors are identified using a regression model based on data from 1984 to 2001 (Buckley 2010). The size of the host country market was found to be important to Chinese firms. Many of their investments abroad were significantly influenced by the Chinese government. Investment from China was positively influenced by cultural proximity. The presence of Chinese diaspora and market familiarity were shown to attract Chinese investors. Interestingly, investment from China was not deterred by political instability in host countries.

While the factors identified by Buckley consider host and home country environments, Ren et al highlight the role of the state in shaping outward investment from China (Ren, Liang & Zheng 2012). The state influences OFDI through formal and informal institutions. Formal institutions consist of policy,

bureaucratic administration and state ownership. State policies went through three key stages: initiating OFDI, strengthening the institutional framework and 'going global' which encourages Chinese companies to invest abroad.

The bureaucratic administration is complex and multi-layered. The first layer is the State Council which plans overall OFDI. The second layer is the State Development and Reform Commission responsible for strategies and plans for OFDI. The third layer is the Department of Foreign Capital and Overseas Investment which provides guidance for foreign investment industries and approves OFDI projects. The Ministry of Commerce is in charge of investment and trade treaties, while the Department of Outward Investment and Economic Cooperation drafts regulations and supervises OFDI.

Government ownership of firms also influences their OFDI activities through funding and defining objectives. This is especially relevant since 69.2% of Chinese OFDI stock is owned by SOEs. The informal institutions shown to influence OFDI from China are state ideology and pride, both of which are integrated into Chinese firms' outward investment strategies (Ren, Liang & Zheng 2012). In addition factors such as China's impressive foreign currency reserves, a highly competitive domestic market following China's WTO accession and the government's desire to create globally competitive companies also influenced the internationalisation of Chinese firms (Kim 2009).

2.3.1.1. Investment motives in developed economies

Existing studies suggest that Chinese companies have different motives when investing in developed and developing countries (Cheung, Suny 2009).
A recent quantitative study finds that Chinese OFDI is mainly driven by large markets in developed countries while abundant natural resources and weak institutional environments seem to attract Chinese investors to developing countries (Kolstad, Wiig 2012). Taiwanese firms were found to invest in developed countries for the purpose of accessing markets and strategic assets. Whereas their investments in less developed economies were driven by low-cost labour or efficiency seeking motives (Makino, Lau & Yeh 2002). Thus most Chinese

investors in developed economies are motivated by access to markets and/or strategic assets.

Many emphasise access to strategic assets as a key motive for Chinese outward investment. Assets such as advanced technology and brands are used to enhance the competitive edge of Chinese investors (Child, Rodrigues 2005). Child argues that efficiency-seeking is not a likely driver of OFDI for Chinese firms. They already have a low cost base in their home market and therefore do not need to go abroad to reduce their productions costs. However competing solely on costs is not sustainable in the long term.

Access to strategic assets is particularly relevant for companies investing in developed economies. Deng's position is that Chinese investment in developed countries is driven by a need for strategic resources that are not readily available in China. Chinese MNEs require strategic assets to compete more effectively with mature MNEs (Deng 2007). Some scholars believe that Chinese firms invest abroad in order to access knowledge embedded within developed economies (Rugman, Li 2007).

The springboard perspective proposes that Chinese MNEs invest overseas to acquire strategic assets. They buy critical assets from established MNEs to counteract their competitive weaknesses and raise their competitiveness levels (Luo, Tung 2007). This view is further supported from a strategic perspective by Wright et al who argue that the central motivation for emerging market firms to enter developed economies is exploration rather than exploitation. By this they mean that emerging market firms are investing to acquire competitive advantages not utilise those they already possess. These firms are likely to be at a disadvantage and their entry into developed economies is motivated by a need for developing new resources and capabilities (Wright et al. 2005).

A case study of Zhejiang Geely Holding Group provides an illustrative example of a Chinese company investing in a developed economy for the purpose of accessing strategic assets. The company's acquisition of Volvo highlights the importance of strategic assets such as brands and technology to Geely. The acquisition of the Volvo brand is helping Geely to improve its brand awareness,

image and perception in international markets (Fetscherin, Beuttenmuller 2012). It is hoped that creating a positive corporate brand will counteract negative country of origin effects among international consumers. Aside from the brand, the acquisition also has technological benefits. Geely will be upgrading its technological base enabling it to enter the lucrative Chinese luxury car market currently dominated by Western MNEs like BMW and Audi.

Further case studies provide evidence of strategic asset-seeking behaviour. A case study of Lenovo, Nanjing Automobile and Huawei maintains that Chinese MNEs invest abroad to acquire various strategic assets in order to develop sustainable competitive advantages. Chinese companies need to do this to overcome their existing competitive disadvantages (Huaichuan, Yip 2008). Moreover a case study of six Chinese telecommunication equipment manufacturers shows that their investments abroad are driven by access to strategic resources which are used to strengthen their competitiveness (Parmentola 2011).

2.3.1.2. Investment motives in Europe

The previous section shows that Chinese investments in developed economies are mainly motivated by access to markets and strategic assets. It appears that their investment activities in Europe are driven by the same motives. Strategic asset-seeking companies are interested in accessing advanced technology and established brand names, while the market assess-seeking companies are attracted to the large EU market (Schuller-Zhou, Schuller & Brod 2012).

A further study also finds Chinese companies in Europe to be mostly market and strategic asset-seeking (Knoerich 2012). Those investing for market access have a preference for large, centrally located countries such as Germany because of their market potential and proximity to neighbouring markets such as France. Companies investing for access to strategic assets often choose investment locations based on their strengths in a particular sector or activity. For instance Germany has a good reputation in machinery and equipment, while Sweden and Finland are well known for research and development.

Meanwhile another study suggests that Chinese companies in Europe are not driven by these two motives in equal measure. It argues that market-seeking motives take precedence over asset-seeking ones (Milelli, Hay & Shi 2010). Aside from the two key motives, Chinese OFDI decisions are also influenced by investment incentives, activities of Investment Promotion Agencies (IPAs) and other non-economic factors such as personal recommendations, personal relations with people in the host country, previous experience of a country or the existence of a Chinese community (Knoerich 2012).

Much like the research findings from Europe, studies examining the motives of Chinese investors in the UK have found them to be predominantly strategic asset-seeking and market access-seeking. A study of Chinese companies in the UK uses survey data to show that respondents were mainly motivated to invest in the UK by access to EU markets, expansion opportunities, local talents, R&D capabilities and established brands (Liu, Tian 2008).

A study by Cross and Voss has similar results. Their study examines motivations and sources of competitiveness of Chinese enterprises in the UK. It finds that Chinese companies enter the UK to develop foreign markets and to gain access to foreign technology and know-how (Cross, Voss 2007). Based on these findings it can be concluded that Chinese investment in the UK is predominantly market and strategic asset-seeking, as is the case in Europe.

2.3.2. Investment modes

Existing research on the modes of investment selected by Chinese companies abroad suggests a high degree of versatility. Some studies find that they mostly use greenfield investment and mergers and acquisitions to enter foreign markets, while others indicate that Chinese companies are likely to combine the two entry modes rather than using a single one.

Research findings presented by Child suggest that Chinese companies tend to invest abroad via international acquisitions and organic expansion (Child, Rodrigues 2005). The number of international acquisitions by Chinese firms has increased over the last decade. Their main motive is to enhance competitiveness

by gaining access to foreign technology, R&D skills and reputable brands. Access to technology has been a prominent motive and is illustrated by the case of Holly Group which produces energy meter equipment. In 2001 it acquired the hand-set reference design business from Philips Semiconductors in the US, giving Holly access to equipment, assets, know-how and intellectual property developed by Philips. These new skills and assets would enable Holly to compete more effectively abroad. A further example of an international acquisition for similar reasons is the case of Lenovo which acquired IBM's PC division in 2004. The transaction provided Lenovo with access to IBM's laptop production lines, product developers and distribution networks.

Meanwhile the organic expansion route involves setting up subsidiaries and facilities in international settings. Chinese companies utilise this entry mode to adapt their products to local markets or raise international brand awareness. Haier, the Chinese white goods manufacturer is a good example. The company set up a manufacturing, design and trade centre in the US for several reasons. Firstly, to avoid US export barriers. Secondly, to raise the profile of the Haier brand and lastly because it believed that success in developed markets would give the company a better chance of entering other international markets (Child, Rodrigues 2005).

When entering developed economies the literature indicates that Chinese companies are likely to use greenfield investment or acquisitions. Evidence suggests that they prefer to use greenfield investment and acquisitions when investing in Germany (Klossek, Linke & Nippa 2012). An increase in investment by Chinese firms in Germany has encouraged questions about their entry modes and strategies. A recent study using qualitative data from a range of Chinese enterprises in Germany examines their entry modes and different strategies for managing institutional barriers and the liability of foreignness (Klossek, Linke & Nippa 2012). Two entry modes are identified: greenfield investment and acquisitions. Lenovo, Beijing No.One and the Shanggong Group used acquisitions to enter the German market while BoC, Baosteel Minmetals and Haier entered via greenfield investment.

Meanwhile some researchers argue that Chinese firms prefer to enter developed markets via acquisitions. Thilo shows that Chinese companies are likely to enter developed markets via acquisitions (Hanemann, Rosen 2012) while Clegg and Voss find that the same is true of companies investing in Europe (Clegg, Voss 2012). This is a plausible argument because Chinese M&A activity in Europe is on the rise in terms of value and volume. Most M&As take place in France, Germany and the UK. Since 2010 Germany has been Europe's leading destination for Chinese M&As. There has been a continued increase in the number of Chinese M&A in Europe, from 11 in 2006 to 61 in 2011 (Price Waterhouse Coopers 2012). Chinese M&A activities have been encouraged by the relatively weak Euro and declining values of European firms.

When it comes to investment modes in the UK, the few studies that have been conducted suggest that the dominant entry modes are greenfield investment and mergers and acquisitions. Burghart and Rossi show that greenfield investment and expansion of existing sites are the main entry modes, followed by mergers and acquisitions (Burghart, Rossi 2009). Chinese enterprises largely undertake sales and marketing activities or establish headquarters in the UK. The choice of sectors reflects their motives which are expanding market presence and developing knowledge. Similarly survey data suggests that most companies enter the UK through greenfield investment. According to the results the modes of entry are sector dependent (Liu, Tian 2008). For example all the banking and trading affiliates were wholly-owned subsidiaries while affiliates in other sectors used other entry modes such as partnerships and acquisitions.

Other researchers contend that some Chinese companies pursue multiple entry strategies (Liu, Buck 2009). A case in point is the Chinese company BOE. It established several subsidiaries and branches in Europe, North America and Asia. The company also acquired two companies abroad – Hynix, a Korean LCD maker and Hong Kong based TPV Technology Ltd. Thus BOE combined greenfield investment with M&As. The wholly-owned subsidiaries ensured proximity to and effective communication with its customer base, while the international acquisition provided access to technology, human capital, networks, market share and international distribution systems.

Chinese companies have increasingly been using M&As to enter international markets. Numbers of Chinese overseas M&As have risen steadily between 2007 and 2012. In 2007 Chinese MNEs completed 107 transactions valued at USD 13.58 billion while in 2012 the number of transactions increased to 208 valued at USD 93.09 billion (Xinhuanet 2012c). According to the Ministry of Commerce, M&As form a substantial part of OFDI by Chinese firms. In 2011 the value of Chinese M&A activity was USD 27.2 billion accounting for 36.4% of the total outbound investment for that year. M&As are concentrated in the mining, manufacturing and power industries (Ministry of Commerce, People's Republic of China 2012).

Despite their rise in popularity acquisitions by Chinese companies have had mixed outcomes. Haier's international merger and acquisition efforts over the last decade have lead to the company's success especially in the United States where it holds 50% market share in the compact refrigerator market and also has a strong presence in other markets (Kim 2009). However there are other examples of Chinese merger and acquisition efforts that have been less successful. Some of the M&As were abandoned during the negotiations stage. For example China Mobile's attempt to acquire Millicom, or Huawei's attempt to acquire Marconi and 3Com. Meanwhile other M&As ran into difficulties once the transaction had been completed. For instance the Universal Automotive Industry (UAI) from the US went bankrupt after it had been acquired by the Chinese parts supplier, Wanxiang Group. Similarly SSangyong Motor went into administration once it had been taken over by SAIC (Kim 2009).

A case study of The China Qianjiang Group's acquisition of the Italian motorbike manufacturer Benelli demonstrates the problems encountered by Chinese M&As (Spigarelli, Wei & Ilan 2012). The acquisition was envisaged to integrate Benelli's brand, professionalism and knowledge with Qianjiang's efficiency and low cost production. However a series of problems emerged as a result of differences in culture and working environments between China and Italy which strained the relationship between management and the employees.

Entry mode decisions are a key part of a firm's internationalisation strategy and require careful consideration at a strategic level. In the context of Chinese

enterprises extant literature identifies eight factors which influence firms' entry mode decisions. The first group of factors are external to the investing company and relate to the host country environment. This group includes the following factors: cultural distance, country risk, host country opportunities and host country competition.

The first factor, cultural distance, refers to the differences in behavioural norms between the home and host countries. Most existing research finds cultural distance to be a significant factor in entry mode decisions. Empirical evidence suggests that cultural barriers encourage Chinese firms to invest via joint venture partnerships rather than setting up wholly-owned subsidiaries (Cui, Jiang 2009, Cui, Jiang & Stening 2011). Forming a joint venture enables the investing firm to reduce cultural distance by learning about local culture and accessing local networks through its local partner (Yiu, Makino 2002). Further evidence shows that increased cultural distance encourages Chinese firms to invest via non-ownership based entry modes such as trade and licensing (Xu, Hu & Fan 2011). Evidence on the significance of cultural distance is, however, not unanimous. A study contradicting existing findings suggests that cultural distance does not affect entry mode decisions in Chinese multinationals (Quer, Claver & Rienda 2012).

Country risk relates to the level of predictability in the host country's political and economic environment. Evidence on the significance of country risk to entry mode choice is mixed. One study finds that country risk is not significant to FDI mode choices in Chinese firms (Cui, Jiang 2009). Similarly another study shows that political risk does not have an effect on firms' entry mode decisions (Quer, Claver & Rienda 2012). In contrast other studies suggest that the regulatory environment in the host country significantly influences entry mode choice. Thus Chinese firms are likely to invest via acquisitions and wholly-owned subsidiaries in host countries which have stable laws and policies (Wu, Liu & Huang 2012). Moreover if a host country has regulatory restrictions Chinese enterprises are likely to opt for joint ventures so that part of the risk is absorbed by the local joint venture partner (Cui, Jiang & Stening 2011).

Learning opportunities in the form of technology, marketing or managerial expertise found in the host country can influence entry mode choice in Chinese

multinationals. If the investing firm perceives that there are significant learning opportunities in the host country it is likely to invest via wholly-owned subsidiary (Cui, Jiang & Stening 2011). Having full ownership of its operations in the host country enables Chinese firms to have unrestricted access to newly acquired resources. It also allows a high level of integration between the subsidiary and company's headquarters which facilitates knowledge-sharing between the two locations. A joint venture arrangement may limit learning opportunities because it involves sharing resources and control with two or more parties.

The host country competitive environment also appears to have an impact on the entry mode decision process in Chinese firms. When faced with a highly competitive host country environment investing companies are inclined to set up wholly-owned subsidiaries so that they can strengthen their position by exploiting their competitive advantage effectively (Bell 1996). Wholly-owned subsidiaries give investors full control of their foreign operations whilst enabling a high degree of intra-firm integration (Hill, Hwang & Kim 1990). Research findings indicate that the same logic applies to Chinese firms. When entering a very competitive foreign market they are likely to set up a wholly-owned subsidiary for the above stated reasons (Cui, Jiang 2009).

The second group of factors are internal to the investing companies and relate to some of their key features. It includes the following factors: strategic motivation, international experience, firm size and ownership. Strategic motivation defines the key reasons why companies undertake investment activities abroad. A firm's strategic motivation determines the way in which it conducts investment activities including choice of entry mode. Existing research suggests that entry modes are indeed influenced by a firm's strategic motivation. Thus Chinese companies seeking strategic assets were found to invest via wholly-owned subsidiaries rather than joint ventures (Cui, Jiang 2009). Whole ownership of the foreign business unit gives Chinese companies full control over the newly-acquired assets which can be exploited effectively and subsequently shared with other parts of the organisation.

Market-seeking firms from China tend to enter foreign markets using the greenfield investment mode while technology-seeking ones prefer to acquire existing companies (Wu, Liu & Huang 2012). Acquisition of local companies enables

Chinese technology-seeking investors to rapidly acquire existing technologies and more importantly to access know-how required for the development of new technologies. Meanwhile evidence on Chinese firms seeking natural assets indicates that there is no significant relationship between strategic motivation and entry mode choice (Quer, Claver & Rienda 2012). Evidence on natural resource-seeking firms is not conclusive because further findings show that a deterministic link does in fact exist. Namely the results demonstrate that Chinese natural resource-seeking companies are unlikely to enter international markets via wholly-owned subsidiaries (Quer, Claver & Rienda 2012). This may be due to government restrictions which do not allow foreign investors to have sole ownership of natural resource exploiting ventures. Instead host governments compel investors to form joint ventures with local partners.

Although international experience is considered to be an integral part of the firm internationalisation process (Johanson, Vahlne 1977, 2009), its significance in the context of Chinese enterprises in unclear. Existing research highlights that general international experience has no effect on entry mode choice in Chinese enterprises (Quer, Claver & Rienda 2012, Wu, Liu & Huang 2012). It may be that general international experience does not make a difference. But if we considered more specific kinds of international experience e.g. expertise in a particular entry mode or experience of entering the same industry elsewhere, then the results may well be different. Another possible explanation could be that international experience does not matter because this is something that Chinese firms inherently lack.

Based on evidence from existing studies it appears that ownership plays a significant role in entry mode choice in Chinese firms. However the nature of this influence remains unclear. Many have written about the privileges enjoyed by Chinese state-owned enterprises such as access to financial and other resources (Williamson, Zeng 2007). Researchers have found that Chinese state-owned firms tend to enter foreign markets via high risk and high involvement entry modes such as greenfield investments or acquisitions (Warner, Ng Sek & Xu 2004, Bai, Jin & Qi 2013) because of the support they receive from the state. In contrast others have found that state-owned enterprises are likely to enter foreign markets using

low involvement entry modes, while private enterprises are more inclined to adopt high involvement entry modes (Xu, Hu & Fan 2011).

2.3.3. Investment effects on advanced host economies

As we have seen in section 2.2 there is an abundance of literature on the effects of FDI on host country firms. The vast majority of these studies are concerned with effects on domestic firms in developing countries. The interest in China, in particular, is a reflection of the country's position as the largest recipient of FDI amongst developing and transitional economies. It also reflects the widespread view that the influx of foreign investors played a vital role in the development of domestic enterprises in China. Existing literature examines the impact of FDI on Chinese firms through spillovers and relationships between MNEs and domestic firms.

On the other hand there is a lack of research on the effects of FDI from emerging economies. Although FDI from developing countries has risen rapidly in the last decade it is still a relatively new and under-researched area. The need for more research is especially necessary when it comes to the effects of emerging multinationals on domestic firms in advanced host economies. Few existing studies look at the effects of these multinationals on developed host economies. Even fewer still focus on multinationals from China.

Some researchers observe that it is too early to ascertain the true effects of Chinese FDI on the European economy because it is still a relatively new phenomenon (Milelli, Hay & Shi 2010). Others notice that aggregate levels of Chinese FDI in Europe are still quite low compared to other countries (Milelli, Hay & Shi 2010, Clegg, Voss 2012), and therefore assume that the effects of such investments are not likely to be significant. Evidence from individual European countries such as France (Nicolas 2012) and Germany (Xu, Petersen & Wang 2012) reinforces this view.

Several existing studies look into the economic implications of investment from emerging markets. They highlight the importance of new capital from China (Hanemann, Rosen 2012) and India (Charlie 2012) especially during the recession

when FDI from developed countries had decreased (Milelli, Hay & Shi 2010). Indian multinationals were welcomed in Germany because of the prospect of additional investment (Tiwari, Herstatt 2009). French firms in financial difficulties managed to survive as a result of being taken over by the Chinese (Nicolas 2012), while some German firms actively sought Chinese investors because of the associated financial benefits (Gentile-Ludecke 2013).

Evidence on the employment effects of emerging market investment is mixed. Chinese investment in France led to the loss of some jobs but it also created new ones (Nicolas 2012), whilst in Germany Chinese companies appeared to employee significantly fewer people compared to other foreign investors (Xu, Petersen & Wang 2012). Meanwhile other research suggests that investors from emerging markets were instrumental to the preservation and creation of jobs in Europe. Approximately 15,000 new jobs were created in Europe by Chinese investors between 2000 and 2011, while 16,000 jobs were preserved at Volvo when it was acquired by Geely from China (Hanemann, Rosen 2012). Indian firms had an overall positive net effect on jobs in Germany (Tiwari, Herstatt 2009) and some successful acquisitions which led to significant job creation e.g. Tata's takeover of Jaguar Land Rover (Charlie 2012).

The competitive effects caused by investors from emerging markets can provide a useful stimulus for rival firms to be more efficient in terms of lowering their prices, providing enhanced service agreements or innovating to a greater extent. Equally new entrants from developing countries can also be a threat to existing players in the market (Milelli, Hay & Shi 2010) which could lead to job losses or even company closures.

The presence of multinationals from developing countries has visibly improved consumer welfare in advanced economies in areas such as telecommunications and pharmaceuticals. Companies like Huawei and ZTE from China have reduced the costs of telecommunications equipment in Europe thereby increasing speeds and making it more accessible for consumers (Hanemann, Rosen 2012). Similarly the production of generic medicines by Indian pharmaceutical has provided US consumers with more choice and products at significantly lower prices (Charlie 2012, Greene 2007).

Emerging evidence of Chinese acquisitions in Europe indicates that the effects are largely positive. The prospect of expanding into the Chinese market was a key benefit for German investors because they would receive support and advice from their parent companies (Gentile-Ludecke 2013). They were able to take advantage of established networks and local knowledge of their acquirers which improved their chances of succeeding in the Chinese market (Knoerich 2010). Overall existing research suggests that German and French companies became more competitive once they were acquired by Chinese multinationals (Nicolas 2012, Knoerich 2010). It appears that Chinese acquirers have a tendency to grant German companies with a high degree of independence (Knoerich 2010, Gentile-Ludecke 2013) but more research is required to verify whether this finding applies in other European countries too.

2.4. Firm internationalisation theory

One of the leading mainstream theories of firm internationalisation was developed by Johanson and Vahlne in 1977 and is known as the Uppsala Model. This theory was devised to explain internationalisation patterns of firms based on empirical evidence from Swedish firms. The process of firm internationalisation is viewed as incremental whereby firms' entry into foreign markets follows a gradual, step-by-step approach. Gradual acquisition of experiential knowledge leads to increasing commitment to foreign markets. Thus a company's own learning about a certain market is a key part of its decision to invest abroad.

A firm's entry into a foreign market is incremental and follows an 'establishment chain' (Johanson, Vahlne 1977). The first step is ad-hoc exporting followed by sale through intermediaries such as agents. Next, companies are likely to set up their own sales units in the international market. Finally, once firms have sufficient knowledge and experience of the market, they will take the biggest step and set up manufacturing overseas. According to this theory firms are likely to enter foreign markets which are similar in terms of culture, education, language, industrial development and business practice. This concept was named 'psychic distance' as an indication of the level of similarity between the host and home country (Johanson, Vahlne 1977).

Though its core arguments relating to the dynamic but gradual nature of internationalisation remain the same, the Uppsala Model was updated in 2009 to reflect the changes in the international business environment that had taken place in the meantime. The updated version incorporates a business network view whereby internationalisation is seen as a web of interrelated firms, suppliers and customers (Johanson, Vahlne 2009). Key concepts such as the 'establishment chain', 'psychic distance' and 'experiential knowledge' are complemented by the introduction of trust as a key component in relationship-building. The newer version also recognises that experiential knowledge is not only about acquiring and exchanging existing knowledge, but also includes generation of new knowledge (Johanson, Vahlne 2009).

Ideas relating to the gradual nature of firm internationalisation are inextricably linked with Swedish national culture. National culture influences organisations in numerous ways including ways in which they are managed. For example the American management style is quite different to that of Sweden. National culture may also influence the ways in which training is conducted in firms (Denny 1999) or ways in which they internationalise. The gradual internationalisation behaviour of Swedish firms is influenced by the national culture of this country. Namely Swedes do not favour "personal dynamism and outstanding individual advancement" (Lawrence, Edwards 2000) instead they prefer individuals to be quiet and unassuming. Swedes are moderate and do not approve of radical behaviour when it comes to people or organisations. Such cultural values are embodied in the internationalisation behaviour of Swedish firms which is portrayed as moderate and gradual by the Uppsala School.

The Uppsala Model contributes to our understanding of the firm internationalisation process by highlighting its dynamic nature and the roles of market knowledge and psychic distance. It is undoubtedly a powerful explanatory tool and its updated version successfully captures the relational structure of the firm internationalisation process. Whilst the merits of this theoretical model are clear some elements appear to be at odds with internationalisation behaviour in practice. The gradual process of firm internationalisation and the key stages identified do not fit the behaviour of 'born globals' i.e. firms that enter overseas markets as soon as they are established. They do not start by operating

domestically and then gradually expanding overseas to similar countries once they have sufficient market knowledge as suggested by the Uppsala Model.

The next point of contention is that firms do not always follow the internationalisation stages identified in the model. They may go straight to the manufacturing stage in the host country if they have, for example, acquired a local company that already has a manufacturing base. The widespread use of mergers and acquisitions as an entry strategy enables firms to gain market knowledge rapidly without going through the slow stages of experiential learning. Thus leapfrogging some of the stages allows firms to internationalise faster than envisaged by the Uppsala Model.

Further research from Sweden points out that the concept of 'psychic distance' is not as important as was first thought by Johanson and Vahlne. Namely Forsgren argues that a firm is more likely to expand its operations to a foreign market on the basis of market-related factors rather than psychic factors (Forsgren, Hagstrom 2007). For example internet-related companies from Sweden decided which foreign markets to enter on the basis of internet usage and market size rather than factors such as culture, language and business practice as suggested by the Uppsala Model.

In addition to the theoretical contributions offered by the Uppsala Model, the internationalisation of firms is contemplated through several other theories centred on the concept of firm-specific advantages. The following section introduces two key theoretical perspectives which explain the internationalisation process in light of firms having or lacking certain firm-specific advantages. The explanations offered by these theories have a secondary purpose which is to provide a conceptual framework for this study.

2.5. Conceptual framework

The conceptual framework combines theoretical and empirical evidence to establish links between investment motives, modes and effects of Chinese multinationals in the UK. Existing empirical studies suggest that Chinese multinationals invest in the UK with the intention of accessing strategic assets or

markets. The behaviour of market access-seeking and strategic asset-seeking MNEs can be explained by two theoretical perspectives. The first perspective proposes that firms internationalise on the basis of ownership (Dunning 1993, 2000) or firm-specific advantages (Rugman 2007, 2008a).

The OLI paradigm is also known as the eclectic paradigm and was published by Dunning in 1980. It is an extension of internalisation theory which states that transactions should be made within a firm if the transaction costs on the free market are higher than internal costs. Internalisation theory focuses on the organisational aspects of foreign investment while Dunning offers two additional factors for consideration – ownership and locational advantages. Although the OLI paradigm was developed over three decades ago it still remains a powerful tool for explaining FDI.

The paradigm consists of three independent variables which together determine the nature of FDI undertaken by MNEs (Dunning 1981, 2001, Dunning; Lundan 2009). The first component is ownership advantage (O) which refers to competitive advantages specific to the investing MNE. According to the theory an MNE is likely to invest abroad if its ownership advantages are greater than those of host country firms. The second component is locational advantage (L) which refers to the locational advantages offered by host countries. According to the theory an MNE is likely to invest abroad if the host country has a range of immobile resources which are not available in its home country.

The third component is internalisation (I) which refers to the way an MNE organises its foreign operations. The eclectic paradigm suggests that the greater the benefits of internalising immediate product markets the more likely the MNE is to engage in foreign production itself rather than engaging a foreign firm. Dunning argues that the exact configuration of OLI variables facing any firm is highly contextual. It will depend on factors such as the political and economic environments of the home and host country, the type of industry and the characteristics of the firm itself e.g. objectives and strategies.

Thus according to the OLI paradigm a company will invest abroad if the following three conditions are met (Dunning 1993):

1. The company has ownership advantages such as advanced technology and brands
2. It wishes to exploit locational advantages in the host country (e.g. low cost natural resources)
3. If the cross-border integration of business activities leads to high efficiency gains

Similarly Rugman's view is that North American, European and Japanese MNEs expanded internationally on the basis of strong firm-specific advantages (FSAa). FSAs are unique capabilities owned by firms and can be based on technology, knowledge, managerial or marketing skills (Rugman 2007). However companies can also internationalise on the basis of country-specific advantages (CSAs). CSAs arise from unique home country factors and can occur in the form of natural resources, labour or cultural factors in the home country. Rugman argues that the success of truly internationalised MNEs is down to sustainable FSAs such as "sophisticated managerial skills in knowledge and system integration" (Rugman 2008a): P.12.

Although the theories based on ownership (Dunning 1993, 2000) or firm-specific advantages (Rugman 2007, 2008a) were initially developed to explain the internationalisation of MNEs from advanced economies, they can also be useful in explaining the overseas investment behaviour of Chinese multinationals that possess strong competitive advantages. These companies are capable of competing internationally and therefore their investments in the UK are driven by the desire to access local and regional markets.

The second perspective argues that companies from emerging markets lack competitive advantages and internationalise in order to obtain them (Luo, Tung 2007, Mathews 2006b). The LLL framework, developed by Mathews as a response to the OLI paradigm, stands for Linkage, Leverage and Learning. It was created to explain the development of firms from developing countries. Mathews' main argument is that emerging market MNEs lack the ownership specific advantages or superior resources which developed country MNEs have. When emerging MNEs invest abroad they do so in order to access the resources they lack (Mathews 2006b).

MNEs from emerging markets are said to use international expansion to obtain the ownership advantages they need to compete against global rivals at home and abroad. Thus investments abroad are intended to compensate for their competitive disadvantages. These companies are keen to acquire advanced technology, or manufacturing know-how by acquiring foreign companies that have such ownership advantages (Luo, Tung 2007). They lack the resources and capabilities owned by MNEs from advanced economies and tend to internationalise through global alliances and acquisitions. In doing so they reduce their competitive disadvantages by upgrading their own resources and capabilities (Guillen, Garcia-Canal 2009). An illustration of this is the Chinese computer company Lenovo. The company started out as a manufacturer of computer equipment under the name of Legend. It became proficient at manufacturing computer hardware and was quite successful in its home market. However it lacked two strategic assets – advanced technology and branding – both of which were crucial for further growth. In order to secure the assets it lacked, the company acquired the US computer company IBM. The company gained access to IBM's proprietary technology and reputable brand. It changed its name to Lenovo and now markets its products under two brands – IBM and Lenovo.

The LLL framework describes the development process of emerging economy MNEs in three stages (Mathews 2002). In the initial stage they identify resources they lack but can be found in advanced MNEs. Developing country firms then link up with individual advanced MNEs or their value chains and forge relationships with them. Through this interaction developing country MNEs are able to leverage the advantages they need such as knowledge, technology and market access. The learning process that occurs enables them to acquire and adapt new skills and competencies needed for further development.

Latecomer firms from East Asian economies such as Taiwan provide an illustrative example. Many of these firms started out as local electronic manufacturers with limited technological capabilities. By inserting themselves into global value chains of production they forged relationships with well-known companies and began to produce components for them (linkage). This interaction provided domestic manufacturers with access to technologies and know-how they lacked (leverage). The learning that occurred through these supplier relationships was vital to the

upgrading of the developing country MNEs. It enabled their progression from simple own equipment manufacturing (OEM) to own brand manufacturing (OBM) based on designs developed by themselves (Mathews 2006a).

The perspective based on competitive disadvantage is supported by many other scholars. Some observe that developing country MNEs invest abroad despite the lack of ownership advantages such as technology, established brand names, or marketing and organisational expertise (Zhang 2009). The absence of firm-specific advantages was noted as early as the 1980s by Lall in his discussion of MNEs from the third world. He observed that they have smaller "proprietary assets" to protect when investing abroad and are eager to form relationships with developed country firms with the objective of accessing advanced technologies and established brands (Lall 1983). Some have argued that Chinese companies invest abroad not to exploit competitive advantages but to address competitive disadvantages (Child, Rodrigues 2005, Huaichuan, Yip 2008, Moon, Roehl 2001) by gaining access to strategic assets (Luo, Tung 2007).

The second perspective was developed to explain the international investment behaviour of firms from developing economies. But is also provides a useful explanation for the investment activities of Chinese multinationals that lack competitive advantages. These companies are unable to compete effectively in international markets and therefore their investments in the UK are primarily motivated by the need to acquire strategic assets.

The link between investment motivations and investment modes is made through empirical evidence on entry mode selection in Chinese firms. Some studies suggest that the investment modes selected by Chinese multinationals are influenced by host country factors such as competition, demand (Cui, Jiang 2009), country risk and cultural distance (Xu, Hu & Fan 2011). The choice of entry mode is also affected by internal factors for example the company's asset-seeking strategy, global strategic motivation (Cui, Jiang 2009) or investment motivation (Deng 2007). Therefore the investment motivations of Chinese firms play a significant role in determining the type of entry mode selected by a Chinese multinational when investing overseas. Furthermore it can be assumed that

different investment motivations may lead to different entry mode choices by Chinese firms when entering international markets.

Whilst it is likely that different investment motives will result in different entry modes, it is also logical to assume that they will impact the host country in different ways. Thus an asset-seeking multinational from China is likely to choose a different entry mode and to have different effects on the host economy compared to a market access-seeking one. The links between investment motives, modes and effects of Chinese multinationals on host countries form the conceptual basis of this research. Given the limited availability of research on the effects of Chinese investors on developed host countries, the aim of this research is to use the conceptual framework to understand the extent to which the investment motives and investment modes displayed by Chinese MNEs influence the effects of their investments on British business partners.

2.6. Concluding remarks

Today cross border investment is a highly globalised phenomenon. The historical dominance of multinationals from advanced economies is being disrupted by the rise of multinationals from emerging economies. China's rapid economic development is partly owed to the influx of FDI into the country over the last two decades or so. The presence of foreign multinationals was significant to the development of the domestic sector in China. In particular the role of knowledge transfer through spillovers and relationships with foreign MNEs was instrumental to the expansion of local firms. The presence of foreign investors, together with significant accumulation of capital contributed towards the growth of domestic enterprises up to a point where they could consider undertaking investments abroad.

As a result of rapid economic growth, China has since evolved into a significant outward investor. Chinese companies are increasingly undertaking investment activities overseas and in doing so display a range of investment motives. Their primary motives when investing in advanced economies such as the UK are access to markets and strategic assets. Companies from China tend to enter new

international markets via greenfield investments or mergers and acquisitions. Their choice of investment modes appears to be closely associated with their investment motives.

Chinese firms have only recently started to invest in advanced economies and this is reflected in the limited research available. The deficit of research applies especially to the effects of Chinese investment activities on advanced host economies which have been examined by several studies. Some investigate the aggregate effects of Chinese investment in the EU, while a few others examine the effects of Chinese acquisitions on European firms. At present no research has been undertaken to examine the effects of Chinese multinationals in the UK. The present research aims to do this by focusing on the effects of Chinese multinationals on British business partners.

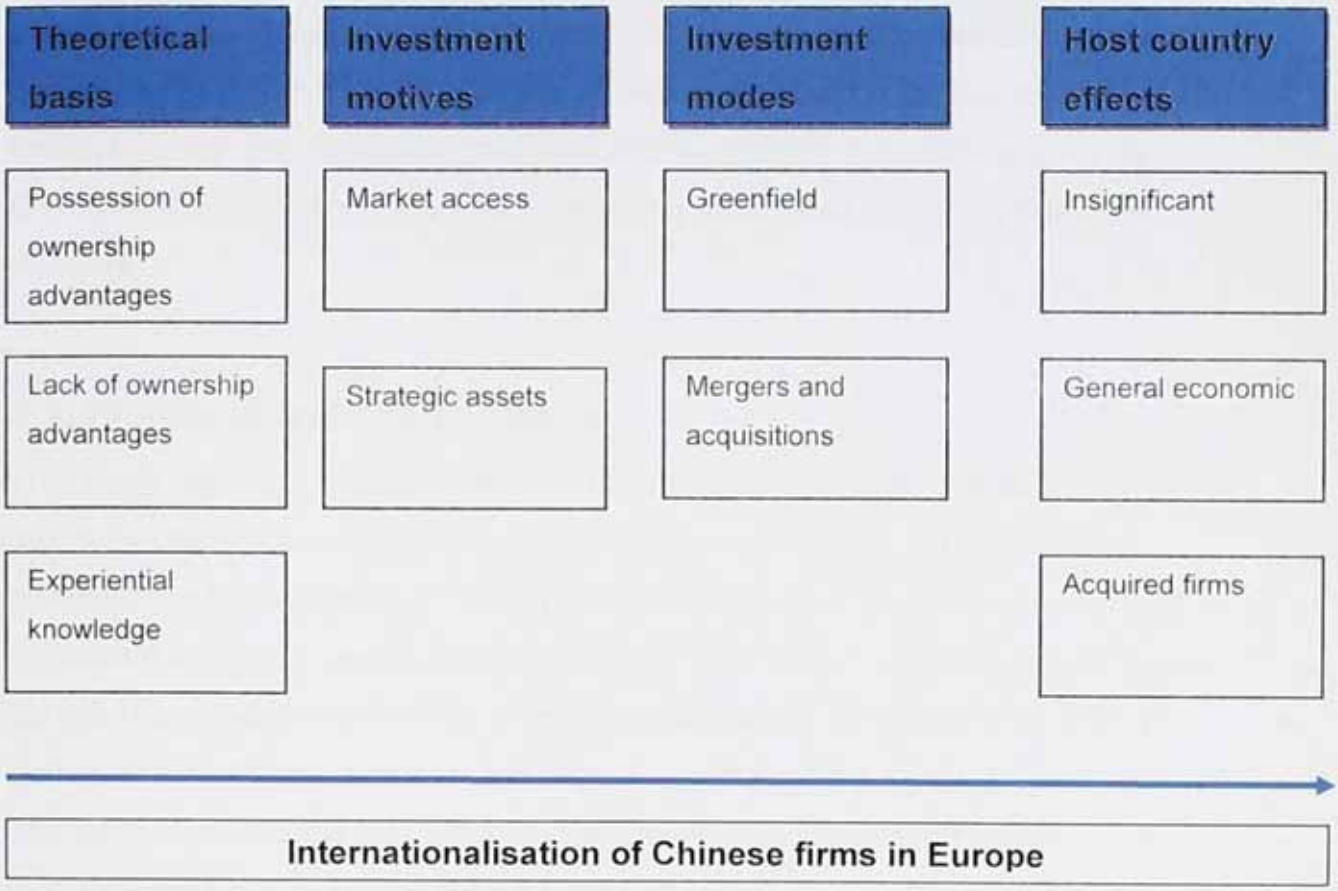
A conceptual framework has been developed to serve as a guide for this research. The framework links together the three main concepts relating to Chinese outward investment – the motives of their investments, the modes they choose and the effects of their investment on the host country. The main assumption is that the investment motives determine the choice of entry modes, which in turn lead to diverse investment effects on the host country. Thus it is anticipated that Chinese firms with strategic asset-seeking motives are likely to have different effects to those with market access-seeking ones.

The conceptual framework is designed to assist data analysis by providing three distinctive themes. The examined companies will be analysed according to the motives of their investments, the modes they choose and the effects of their investment on the host country. In addition the framework helps to establish relationships between the three themes. The aim of this is to uncover the role of the investment motives and investment modes in influencing the effects of Chinese MNEs on British business partners.

A conceptual model has been devised to provide an overview of existing literature on the internationalisation process of Chinese firms in Europe. The diagram consists of individual research contributions and provides a useful summary of what we know about Chinese firms investing in Europe. It consists of four main

components which are presented in separate columns. They are: theoretical basis, investment motives, investment modes and host country effects. These key elements are presented in individual columns to show that they have been examined separately in existing literature. The model will be revised to reflect the findings of this study in chapter nine. The results are expected to contribute to our understanding of Chinese internationalisation in Britain.

Figure 6 - Conceptual model of Chinese investment in Europe



Source: Author's interpretation of the literature

3. Methodology

Having reviewed the relevant literature associated with Chinese outward investment in the previous chapter, this chapter outlines the methodology used to carry out the present study. Chapter three is divided into two parts, the first part focuses on philosophical assumptions by highlighting the ontological, epistemological, axiological and methodological positions of this study. The second part is more practical and it concentrates on the method of the study i.e. the ways in which data was gathered and analysed. This chapter explains the philosophical underpinnings of the study and shows how the research was actually carried out to achieve the overall aim of the thesis which is to understand the extent to which the investment motives and investment modes displayed by Chinese MNEs influence the effects of their investments on British business partners.

3.1. Philosophical assumptions

This study takes a qualitative approach towards achieving its overall aim. The qualitative research paradigm was developed as a reaction to the positivist paradigm and it is concerned with understanding human behaviour from the participant's point of view (Collis, Hussey 2003). It is well-suited to capturing the complexities and idiosyncrasies of business situations which are a function of a particular set of circumstances and individuals (Saunders, Lewis & Thornhill 2000). The qualitative approach is useful for uncovering details which help us to build an understanding of the reality of a particular situation.

The positivist approach towards research opposes the assumptions of the qualitative view. Positivism in social sciences is based on the approach used in natural sciences. It is rooted in the notion that research into human behaviour should be conducted in the same way as research in natural sciences (Collis, Hussey 2003). Positivists believe that the role of the researcher is largely objective and that he or she is capable of interpreting the data in a value-free manner. They place emphasis on highly structured methodology and quantifiable observations (Saunders, Lewis & Thornhill 2000). The positivist and qualitative research paradigms represent polar opposites of a continuum with numerous alternative

research paradigms in between. Like most studies in business and management, this study lies somewhere between the two extremes.

This research fits well with the qualitative paradigm because of the nature of the study and what it sets out to achieve. The study seeks to develop an understanding of the investment motives, modes and effects of Chinese multinationals. The complexity of their outward investment behaviour and the need for detailed data necessitated the use of qualitative data gathered from study participants. A positivist approach characterised by quantifiable observations and rigid methodologies would not be able to achieve the level of detail required to capture the behavioural complexity of Chinese firms. In addition the subjective nature of the data used in this study is not aligned to the principles of objectivity that lie at the heart of positivist research approaches.

3.1.1. Ontological assumptions

As this study is conducted in the qualitative tradition its ontological position is largely constructivist whereby reality is viewed as subjective and multiple as seen by the study's participants (Collis, Hussey 2003). The constructivist view recognises that the concept of subjective reality not only applies to participants but also to the researcher and the readers of the study (Creswell 2013). Thus the examination of Chinese investment behaviour and its effects on the UK business sector is based on the individual realities of each of the interviewees and on that of the researcher. This view is in contrast with the objectivist assumption that social reality is objective and independent of the researcher (Collis, Hussey 2003).

3.1.2. Epistemological assumptions

Like other qualitative studies the epistemological position of this study is predominantly interpretivist whereby interaction occurs between the researcher and the observed phenomenon (Collis, Hussey 2003). The interpretivist view encourages researchers to get as close as possible to the subject under study with the aim of collecting subjective evidence based on individual views (Creswell 2013). For the purposes of this study the researcher had frequent telephone and email contact with the employees of the Chinese firms and carried out one or more in-person visits. The rationale behind this interaction was to gain as much

familiarity with the firms and their employees as possible so that they would be willing to provide their views and opinions in the interviews that ensued. Thus the interaction between the researcher and the observed firms formed an important part of the study. The interpretivist epistemological position taken by this research contradicts the more positivist assumptions that require the researcher to be independent from that which is being researched (Collis, Hussey 2003).

3.1.3. Axiological assumptions

This study acknowledges that the values held by its participants and indeed by the researcher form an inseparable part of the research process. Qualitative researchers support the idea that research is value-laden (Creswell 2013). They actively report their own values and biases as well as those originating from information gathered in the field. More positivist research traditions, on the other hand, claim to exclude the values embedded in participants and researchers. Positivists are of the axiological assumption that personal values diminish the objectivity of scientific research and as such should not be allowed to influence the research process. In the context of this research, the values and opinions expressed by the participants represent an integral part of the data. Similarly the values and biases held by the researcher have undoubtedly influenced the data analysis process.

3.1.4. Methodological assumptions

So far this section has demonstrated that positivist and qualitative research approaches have their own assumptions about: the nature of reality; what constitutes knowledge and how it can be justified; and the role of values in scientific research. Scientific studies also have methodological assumptions which refer to the general approach towards studying a research topic. Methodology is the overall approach of the research process which includes theoretical assumptions, data collection and analysis (Collis, Hussey 2003). Qualitative research is based on certain methodological assumptions (Collis, Hussey 2003). These types of studies seek to develop an understanding of a particular situation and tend to generalise from one setting to another. They use small samples and a range of research methods to ensure that different perspectives are included. Qualitative studies usually produce rich and subjective qualitative data and are

concerned with generating theories. They are usually conducted in natural settings and are characterised by low reliability and high validity.

The methodological assumptions which form the basis of qualitative studies also apply to this thesis which seeks to develop an in-depth understanding of investment behaviour of Chinese multinationals in the UK context using a case study approach. Data was collected at the firms' business premises using interviews to generate rich, subjective data from different perspectives. This research is geared towards theory building whereby data is collected and a theory is developed as a result of data analysis (Saunders, Lewis & Thornhill 2000). This approach is often described as inductive.

The general approach taken by this research is typical of the qualitative paradigm and as such it differs significantly from the positivist paradigm. Research conducted within the positivist tradition seeks to measure concepts and establish associations and causality (Collis, Hussey 2003). These studies generalise from sample to population. They use large samples and tend to produce quantitative data which is specific and precise. Positivist studies are associated with hypothesis testing whereby a theory and a hypothesis (or hypotheses) is developed and then tested based on data analysis (Saunders, Lewis & Thornhill 2000). This process is frequently described as deductive.

The overall methodological approach used in this study is inductive because of the nascency of the research area. There is a deficit of empirical and theoretical knowledge on the outward investment of Chinese firms in advanced host economies. With hypothesis testing it would have been necessary to develop hypotheses based on existing theory. A review of the literature revealed that extant theories such as the OLI and LLL frameworks do not fully explain the investment behaviour of Chinese firms in advanced economies. Thus it would have been difficult to form meaningful hypotheses in a field that is not mature enough to have solid theoretical foundations.

Given the lack of knowledge on Chinese firms in the UK it was necessary to undertake exploratory research. This study uses an inductive approach that builds theory on the basis of data collected from interviews and various other sources. Its

purpose is to advance of our knowledge of Chinese multinationals in the UK and to develop a theory capable of fully explaining their investment behaviour. The accumulation of knowledge in this research area will enable the application of deductive methods involving hypothesis testing. Further studies can make use of the growing body of literature to develop well-informed assumptions which can then be tested.

3.2. Research method

Aside from a number of philosophical assumptions scientific research also includes a more practical component which defines the way in which data is collected and analysed (Collis, Hussey 2003). This is referred to as the research method. Given the differences between positivist and qualitative research paradigms, research methods are frequently associated with either one of these approaches. For example research methods such as surveys, experiments, cross-sectional and longitudinal studies are often used in positivistic research approaches. Meanwhile qualitative studies tend to use a more diverse range of research methods such as action research; case study; ethnography; feminist perspective; grounded theory; hermeneutics and participative enquiry (Collis, Hussey 2003). The types of research methods associated with the qualitative paradigm differ according to authors. For instance the research approaches cited by Creswell differ to those listed by Collis and Hussey. They are: narrative, phenomenological, grounded theory, ethnography and case study (Creswell 2013).

The research method employed by this research is the case study. Its overall approach is inductive as it seeks to generate theory based on case study data. The present study uses qualitative evidence from interviews as well as a range of quantitative evidence where appropriate.

3.2.1. Case study definition

As a research method, the case study has numerous definitions all of which vary slightly. However most definitions have two key features in common – the ability of case studies to provide detailed understanding of a particular phenomenon, and the importance of context. Yin for instance defines the case study as:

"An empirical inquiry that investigates a contemporary phenomenon in depth and within its real-world context, especially when the boundaries between phenomenon and context may not be clearly evident" (Yin 2014) p.16.

While Yin appreciates the in-depth nature of case studies and the importance of context, he also emphasises the contemporary element of case studies. Case studies are designed to examine a technically distinctive situation. They rely on multiple sources of evidence and existing theoretical assumptions to guide data collection and analysis (Yin 2014). Case studies are not a data collection technique but a research method which includes research design, data collection techniques and specific approaches towards data analysis.

Meanwhile another authority on the case study as a research method, Stake, views the case study as a means of gaining a greater understanding of the case, appreciating its uniqueness and complexity, its embeddedness and interaction with its context (Stake 1995). Stake emphasises the ability of the case study to capture the complexity of a particular phenomenon.

The term case study usually refers to research that investigates few cases in considerable depth (Gomm, Hammersley & Foster 2000). Case study researchers construct cases in naturally occurring situations instead of taking direct control of the variables as is the case in experimental research methods. Case studies aim to capture cases in their uniqueness rather than using them as a basis for generalisation or theoretical inference.

Creswell views the case study as a qualitative methodology in which the researcher explores a real-life contemporary bounded system or multiple bounded cases over time through detailed in-depth data collection involving multiple sources of information such as observations, interviews, audiovisual material, documents and reports (Creswell 2013). Case studies can involve single or multiple units of analysis and they generate case descriptions and case themes.

According to Collis and Hussey the case study is an extensive examination of a single instance of a phenomenon of interest. Like Creswell, Collis and Hussey perceive the case study to be a qualitative methodology. This approach involves a

single unit of analysis such as a company, group of employees, an event or individual. It requires gathering detailed data about the unit of analysis over a prolonged period of time with the intention of obtaining in-depth understanding (Collis, Hussey 2003).

Although the case study has been categorised by some authors as a qualitative research method (Collis, Hussey 2003, Creswell 2013), it is viewed as a more flexible research approach by others (Collis, Hussey 2003, Yin 2014). Yin and Collis and Hussey believe that case studies can be conducted within qualitative and quantitative paradigms. The flexibility of case studies is in fact considered to be one of their key strengths. For example a qualitative case study would be exploratory and would seek to develop understanding of a particular phenomenon. It would be inductive and would use quantitative or qualitative data collection methods. In contrast a positivist case study would have a strong theoretical foundation and specific research questions from the outset.

Case studies are also flexible when it comes to epistemological, ontological, methodological assumptions and research methods. They can be based on both objectivist and constructivist epistemological assumptions, and can use quantitative and/or quantitative evidence. A range of data collection methods such as documents, artefacts, interviews and observations can be applied (Yin 2014). Despite their flexibility and ability to provide an in-depth understanding of a phenomenon, case studies have their limitations which will be addressed later in the chapter.

3.2.2. Types of case studies

The case study method is a helpful tool for answering questions such as "why", "what" and "how". It is well-suited to exploring existing theory and can be a useful way of challenging existing theories (Saunders, Lewis & Thornhill 2000). This method is also suitable for observing contemporary events over which the researcher has no control (Yin 2014).

Case studies can vary significantly according to purpose. They can be exploratory, descriptive, illustrative, experimental or explanatory (Collis, Hussey 2003).

Exploratory case studies are useful in instances where there is limited knowledge of a particular phenomenon. Descriptive case studies can be used to describe current practices in a company, while illustrative case studies may be used to illustrate new or innovative practices developed by a particular firm. Experimental cases are helpful when examining the implementation of new procedures in an organisation and evaluating the benefits. Explanatory cases studies are appropriate when existing theory is used to understand and explain a particular phenomenon.

Others categorise them as either intrinsic or instrumental whereby the purpose of intrinsic case studies is to learn about a particular case, and the purpose of an instrumental case is to gain insight into a question by studying a particular case (Stake 1995). Intrinsic case studies are undertaken because the researcher needs to develop an understanding about a particular case. The aim is not to learn about other cases or about some other general problem. It is more about the researcher having an inherent or intrinsic interest in the case. In contrast the instrumental case study has different motives. It is driven by a research question or lack of general understanding about a certain phenomenon. The examination of a single case helps to develop our understanding of the phenomenon or find an answer to a question. Thus developing knowledge about the examined case is instrumental to our understanding other cases or a general problem.

According to Yin there are three different types of studies depending on what they set out to achieve. They are exploratory, explanatory and descriptive (Yin 2014). The type of case study selected is determined by the research question and the overall purpose of the study. In this respect the present thesis can be categorised as an exploratory case study because of its overall purpose which is to explore the investment behaviour of Chinese MNEs and its implications.

Case studies can also vary according to the unit of analysis. Some case studies focus on one particular unit and are known as single case studies, while others focus on several cases and are known as multiple case studies. Single case studies can be critical, unusual, common, revelatory or longitudinal (Yin 2014). A critical case study design is appropriate when a single case is used to determine whether existing theoretical propositions are correct or not. An unusual case is one

that deviates from existing theories or regular occurrences, while a common case is useful for capturing the circumstances and conditions of an everyday situation. A revelatory case provides the researcher with an opportunity to analyse a phenomenon that was previously inaccessible. Meanwhile a longitudinal case study enables the examination of a single case at different points in time.

Single case studies can also be holistic or embedded. Holistic case studies involve analysis on one level, while embedded case studies involve units of analysis on more than one level. For example an embedded case study can be about a single organisation such as a company but the analysis may include outcomes about its employees and customers. On the other hand a holistic case study would seek to understand the global nature of the firm. The single case study design is appropriate when the case under examination is unusual, critical or revelatory. It is also a reasonable choice when resources are limited and the study needs to be undertaken within a short period of time.

3.2.3. Justification

The case study was selected for this thesis because it was the most appropriate research method for answering the posed research question "To what extent do the investment motives and investment modes displayed by Chinese MNEs influence the effects of their investments on British business partners?" This research question calls for a contemporary study of Chinese multinationals undertaking investment activities abroad. Unlike historical research which is focused on the past, case studies are designed for the present. One of their key features is the ability to provide insight into current events which is what this research sets out to do.

The intention of this research is to develop detailed knowledge about a particular group of companies. Specifically its aim is to gain an in-depth understanding of their reasons for investing in the UK, the ways in which they choose to do so and the effects this has on British business partners in the UK. The need for detail in this research led to the selection of the case study because of its strong capability to provide in-depth understanding of the subject of analysis.

The research question posed requires the examination of a specific group of Chinese companies in their natural environment so that their behaviour in the UK can be assessed accurately. Unlike other research methods such as experiments which are conducted in a carefully controlled environment, case studies facilitate the study of a phenomenon in a real-life context. The case study was therefore a suitable choice because it enables the study of Chinese multinationals in a naturally occurring situation without external intervention.

The nature of this research is context specific in that a group of Chinese multinationals is being studied in a particular context. Namely the purpose of the study is to examine their investment behaviour and the effects of their investments in the UK. The case study was chosen because of the central role of context in this research method. The interaction between the unit of analysis and its context is a significant feature of this method of inquiry which makes it a suitable choice for this thesis.

In order to develop in-depth knowledge about investment motives, modes and effects of Chinese multinationals in the UK, it was necessary to combine qualitative data gathered via interviews with quantitative data from secondary sources. Most of the data collected about the companies was qualitative and it was supplemented by quantitative evidence where appropriate. In this respect the case study was a good fit because of its capacity to facilitate research in qualitative, quantitative or mixed traditions.

Although the single case study design can be the best option in some situations, it is preferable to employ the multiple case study design where possible and appropriate. The analytic benefits of using more than one case study can be significant. With two or more case studies the researcher benefits from a replication effect. Replication logic suggests that conclusions replicated in several cases are more powerful than conclusions made on the basis of a single case (Yin 2014). This research is designed as a multiple case study of nine Chinese multinationals because of the robustness and analytical strengths of this approach compared to the single case study.

3.3. Research design

This section provides a detailed account of the how the case study was designed. It explains how the unit of analysis was defined and also describes the techniques used to collect and analyse the data.

3.3.1. Unit of analysis

Once the multiple case study method was chosen, the next step was to define the unit of analysis which meant deciding which firms would be included in the study. It was decided that the research would be conducted on Chinese knowledge intensive multinationals because potential spillover effects generated by this kind of investment are greater than those generated by labour intensive FDI (Buckley 2010). Knowledge intensive investors are a valuable source of knowledge for host countries. They often provide innovative, high value goods and services and tend to form relationships with local knowledge intensive organisations.

The investigation of this particular group of Chinese multinationals was also policy driven. The lack of knowledge about Chinese knowledge intensive FDI means that current UK policies may not be in the best position to capture the potential benefits of this type of investment. Thus an in-depth investigation of their investment behaviour and potential effects may help the fine-tuning of UK policies to ensure that the potential benefits brought about by this type of investment are maximised.

Participating case studies were selected from a range of sectors to ensure that sector bias was minimal. The table below shows the names of the companies selected and the sectors they belong to:

Table 2 - Participating firms according to sectors

Company name	Sector
Shanghai Automotive Industry Corporation (SAIC); Changan Automobile Group	Automotive
Chongqing Machinery and Electric (CQME); Zhuzhou CSR Times	Manufacturing
TP Link, Vanceinfo	IT
Hytera	Telecommunications
Mindray, Weigao	Medical devices and equipment

Source: Author's database

The selection of individual firms depended largely on their willingness to participate. Most of the companies that were asked to take part were reluctant to do so. Very few were prepared to participate and those that did were included in the research. It was important that participating companies were knowledge-intensive and that they came from a range of sectors. The choice of sectors and firms included could not be pre-determined because of the difficulties involved in recruiting participant firms.

The group of case studies selected was categorised into two conceptual groups: the first group consisted of multinationals with asset-seeking motives, while the second group consisted of multinationals with asset-exploiting motives. This conceptual division served a dual purpose. First, it facilitated the exploration of investment motives of both types of firms. Second, it enabled the comparison of both asset-seeking and asset-exploiting firms in terms of their investment effects on British business partners.

3.3.2. Data collection

This research is based upon a combination of primary and secondary data. The first part of this section details how primary data was collected, while the second part focuses on secondary data.

3.3.2.1. Primary data

Participant recruitment

Initially a database of potential participants was generated from the "China in Britain" publication which specialises in Chinese investment in the UK (China-Britain Business Council 2010). The publication provided a list of Chinese companies according to UK regions and sectors which made it possible to separate firms belonging to knowledge intensive sectors. Once a list of enterprises was compiled with their contact details, emails were sent out inviting the companies to participate. As the response rate to the emails was low, the emails were re-sent and followed up by telephone.

Once telephone contact was established with the relevant individuals the aim of the study was explained to them. Some of the companies agreed to participate on first contact while others wished to have an informative meeting before making a decision. Thus the participant recruitment process consisted of several stages all of which were time-consuming. The majority of firms did not reply to the email invitation while telephone contact was equally difficult to establish. Many of the Chinese managers travel to China frequently and to other parts of Europe where they have subsidiaries to manage. They are in the UK for a limited amount of time and have little time to spare because of the demanding nature of their roles.

After many months of emails, telephone calls and informative meetings, a final list of participants was drawn up. A total of nine Chinese multinationals companies agreed to participate and the number of interviewees within each company varied. The table below outlines the companies' names and the number of interviews conducted within each firm.

Table 3 - Participating firms according to number of interviews

Company name	No. of interviews	Duration
Shanghai Automotive Industry Corporation (SAIC)	8	10hrs
Changan Automobile Group	1	2hrs
Chongqing Machinery and Electric (CQME)	3	5hrs
Zhuzhou CSR Times	1	1hr 30min
Mindray	1	1hr
Weigao	1	1hr 30min
TP Link	1	45min
Vanceinfo	1	45min
Hytera	1	1hr 45min

Source: Author's database

In addition to the case study firms, interviews were also arranged with UK government organisations, industry experts and firms that had partnered with Chinese multinationals. These interviews were used to supplement the case studies by providing an outside perspective on Chinese investment activities. Their interaction with Chinese multinationals meant that they had insight into their investment behaviour and could comment on the effects of their investments. The names of the organisations and the number of interviews conducted are outlined in the table below.

Table 4 - Participating organisations according to number of interviews

Organisation name	Type of organisation	Number of interviews	Duration
UK Trade and Investment (UKTI)	Government	1	1hr 30min
East Midlands Development Agency (EMDA)	Government	1	1hr
Mediatech	Communications	1	1hr
Mahle	Engineering	1	1hr 30min
Cosworth	Engineering	1	1hr

Source: Author's database

A total number of 23 interviews were conducted: 17 with representatives from Chinese multinationals, and five with non-Chinese organisations. One other interview was conducted with the general manager of a Chinese state-owned enterprise but it was not included in the study. The interviewee did not wish to answer the questions because he thought they were too sensitive. The issue of confidentiality was exacerbated by the fact that the Chinese SOE had just formed a joint venture with a UK based company. The general manager thought that this was a particularly sensitive time for the company as the joint venture arrangement had yet to be implemented. Although the interview did not yield any useable data, it serves as a useful illustration of how difficult it can be to engage Chinese companies in academic research projects.

Instrumentation

The main data instrument used to gather primary data for this study was the interview. The interview is the most widely used data collection tool in qualitative research (Nunkoosing 2005). It represents a conversation where one person (the interviewer) seeks responses from another person (the interviewee) for a particular purpose (Gillham 2000). Broadly speaking interviews can be structured, semi-structured or unstructured. Interviews used for this research were semi-structured. In this type of interview the researcher focuses on a specific topic and prepares a

limited number of questions in advance. In addition follow-up questions are asked during the interview (Rubin, Rubin 2012).

The suitability of the interview as a data collection tool for this research is reflected in several advantages. The interview enables collection of rich and detailed data from the participants (Rubin, Rubin 2012). This kind of data allows the researcher to obtain in-depth information from a relatively small group of people. It provides depth of meaning and ensures insight and understanding of the unit of analysis (Gillham 2000). Interviews yield more detailed data compared to surveys because the answers to the questions can be open-ended. This gives interviewees the freedom to respond in as much detail as they wish. Interviews as a data collection method also have the advantage of being flexible. Questions are not fixed and can be re-worded, added or removed (Rubin, Rubin 2012) in order to maximise the quality of collected data.

Despite their advantages interviews also have a number of limitations which require careful consideration. The first two limitations are of a practical nature and relate to the time and cost of carrying out interviews. Interviews are time-consuming (Collis, Hussey 2003) because they consist of the following activities: developing and piloting the interview, setting up the interviews, travelling to and from the interview location, transcribing and finally analysing the collected data (Gillham 2000). The issue of time was mitigated through effective planning and organisation. In this research a period of 18 months was allocated for interviews to ensure that all of the above-listed activities were given sufficient time to be completed.

Interviewing is a costly data collection method (Collis, Hussey 2003). The issue of costs was alleviated by ensuring that the budget allocated to this research project would cover all the interview-related costs. The total budget allocated to this project was £3,000. During the course of data collection the research budget was managed carefully to ensure that expenses such as travel and accommodation would be covered for all of the interviews. Thorough budget planning and control meant that there were no financial issues throughout data collection which enabled the researcher to concentrate on collecting high-quality data.

Further issues regarding the usefulness of interviews as a data collection tool are of a methodological nature. The issues commonly identified in methodological literature relate to misunderstanding, generalisability, subjectivity, bias and credibility. Each of these concerns is discussed in light of the interview data collected for this research.

Evidence from survey-based research shows that questions asked in surveys are frequently misunderstood. Respondents are quite likely to misinterpret aspects of questions as well as some of the terms used (Belson 1981). For instance the word "you" can be understood to mean yourself or it could include others. The way in which a term is understood is likely to influence the response given. The challenge of misinterpretation was resolved in this research by testing out the interview questions before they were administered to study participants. The issue of misunderstanding was all the more pertinent because some of the interviewees spoke English as a second language. The question testing was a good opportunity to identify ambiguous questions and to do something about them. It involved asking native and non-native English speakers who were not study participants to provide feedback and comments on the questions. The questions were then modified to reflect the feedback so that potential misunderstandings in the interviews proper would be minimised. The testing process is described in more detail on page 84.

The question of generalisability is commonly discussed as part of the quantitative versus qualitative debate. Being a typically qualitative data collection tool, the interview is frequently criticised for its lack of generalisability. The significant time and resources required for interviewing dictate that a relatively small number of interviews can be carried out per research project. For example 23 interviews were conducted for the purposes of this research. The number of respondents in interview-based studies will inevitably be lower than in survey samples (Kvale 1996) which brings into question the generalisability of findings made on the basis of interview data.

Quantitative research methods are well-suited to generalisation. A representative sample of the appropriate size is constructed which enables conclusions to be generalised to a larger population. The strength of this type of research is breadth

of knowledge. On the other hand interview-based research has smaller samples and a different purpose (McCracken 1988). Its aim is to develop a detailed understanding of the unit or units of analysis. Thus interviews are designed to provide depth of knowledge rather than a basis for generalisation.

In the context of this research interviews were selected as the most appropriate data collection tool because of their ability to provide in-depth understanding of a unit of analysis in a particular context. The intention of this research is to develop our knowledge of Chinese investment behaviour in the UK so that we can have a better understanding of the implications of their investments for the local economy. The study was not designed to generate findings which could then be applied to Chinese multinationals in other host economies for example.

A further limitation of interview-based research relates to the influence of personal views or opinions. Subjectivity is identified by some methodologists as one of the main difficulties of using interview data (Gillham 2000, Roulston, deMarrais & Lewis 2003). Perspectives on the degree of subjectivity in interviews vary significantly. Some believe that the interviewer and the interviewee shape the data and its meaning. This view focuses on the interactive aspects of interviews and is referred to as an 'active interview' (Holstein, Gubrium 1995). According to this position the role of the interviewer and the interviewee is to co-construct the meaning of the data. It emphasises the influence of the interviewer and of the interviewee and the constructed nature of the entire interview process (Gubrium, Holstein 2001). Moreover evidence from the social work context suggests that interviewing is not merely information gathering but a process of knowledge production and identity creation (Suoninen, Jokinen 2005).

Other perspectives focus on the role of the interviewer which is seen to have more or less influence on the interview data. One standpoint proposes that the researcher is an 'instrument' of data collection (Guba, Lincoln 1981). The researcher uses his or her range of experiences and cognitive abilities to systematise and analyse the collected data. However a contrasting view argues that the interview provides the researcher with an opportunity to gain insight into interviewees' realities (Silverman 1997). The first point of view perceives the

interviewer to have some impact on interview data while the second sees this role as being more passive.

In this study the issue of subjectivity was alleviated through two series of measures that were built into the interview process. The first set of measures was designed to minimise interviewee subjectivity. Each group of interviewees was asked the same questions on the basis of a prepared questionnaire. The interviewees came from three different types of organisations: Chinese firms, British partner organisations or government agencies. The individuals themselves were from different backgrounds – mostly Chinese and British and they held a range of positions in their organisations. The potential subjectivity of the interviews was significantly reduced by the inclusion of secondary data which was used to corroborate the findings.

The second set of measures was devised to minimise interviewer subjectivity. In this study the role of the interviewer was to facilitate data collection rather than participate in data creation as some methodologists suggest. The questions were posed in the same manner. Both main and follow-up questions were asked in a neutral way. The use of persuasive or encouraging questions (Suoninen, Jokinen 2005) was avoided to ensure that the data was not influenced by the views and opinions of the interviewer.

Interviewer subjectivity was further reduced by creating a distance between the interviewer and the interviewee. In most cases they had not met before the interview so the professional distance between them helped to minimise subjectivity during the interview process. Subjectivity was also moderated by the effects of cultural distance. Namely in this research the interviewer and the interviewees were from different cultural backgrounds which created a cultural distance between the researcher and the subject of the research (McCracken 1988).

A further concern regarding the interview as a data collection technique is partiality or one-sidedness. Similar to subjectivity, bias can be driven by the interviewer and/ or by the interviewee (Collis, Hussey 2003). For example interviewers can be biased in terms of class, race and culture while interviewees could provide

responses which they perceive to be 'correct' or 'acceptable'. In this study interviewer bias was controlled by ensuring that the interviewer was not obtrusive throughout the interview process (Brenner, Brown & Canter 1985). The interviewees were given the opportunity to answer questions in their own way. At the same time it was important for the interviewer to maintain control of the conversation through use of questionnaires. The questions were posed in a neutral way so that they would not affect the interviewees' responses.

Interviewee bias was controlled by ensuring that the collected data was balanced. It included alternative points of view and a range of perspectives (Rubin, Rubin 2012). Data on the investment behaviour of Chinese firms in the UK was collected from the perspective of the firms themselves, their British partners and government organisations. The professional and cultural diversity of individual respondents also helped to reduce interviewee bias. Furthermore the triangulation of interview data with secondary data from company documents, government reports and specialist publications played a part in minimising the possibility of biased data.

Establishing the right kind of relationship between the interviewer and the interviewee can assist in reducing interview bias. During the interview stage of this research particular care was taken to establish trust between the interviewer and interviewees. The respondents were given detailed information about the purpose of the study and the about the way in which the data would be used. They were also given assurance with regards to confidentiality and anonymity. The researcher also maintained a degree of distance from the interviewees so that the relationship did not affect or obscure the interviewees' responses (McCracken 1988).

The issue of credibility was addressed during all stages of the interview process. In the participant recruitment stage it was important to recruit individuals who were directly involved in Chinese investment (Rubin, Rubin 2012). It was vital to include interviewees who would provide internal and external perspectives on the Chinese firms. In the questionnaire design phase the same questions were prepared for each group of interviewees (Roulston, deMarrais & Lewis 2003) so that the responses could be easily compared.

Credibility was further enhanced in the interview stage where questions were asked in a neutral way. Any additional questions represented prompts for further details. Leading questions were used occasionally to check the reliability of the responses and to verify the interviewer's interpretation (Kvale 1996). The purpose of these questions was not to influence the interviewees' responses but to enhance the credibility of the data. Most of the interviews were recorded and then transcribed word for word. Where recording was not possible the notes taken during interviews were clarified and elaborated once the interviews were completed (Holstein, Gubrium 1995). This was done straightaway to ensure that the notes accurately reflected the interviewees' responses.

Primary data was gathered by means of individual and group interviews. The majority of data was collected through individual interviews while group interviews were used on two occasions. During the group interviews several interviewees from the same organisation were asked to respond to questions and to participate in the discussion. Group interviews were held with Zhuzhou CSR Times – Dynex and with CQME-Holroyd. In both instances, the interviews consisted of participants from the Chinese parent companies and from their UK subsidiaries. The use of group interviews was advantageous from a credibility point of view. It facilitated the inclusion of views and opinions from employees who are normally based in China and happened to be visiting their UK subsidiaries while the interviews were being held.

The interviews were guided by semi-structured questionnaires which outlined the topics that were to be covered and also contained some specific questions. The semi-structured approach to interviews facilitated flexibility during the interview process. For example this approach allowed the researcher to investigate interesting new threads that emerged during interviews. Similarly the semi-structured approach also allowed topics and questions to be excluded if it became apparent that they were no longer relevant during the interview process. If certain threads were added or excluded this was done across all of the case studies to ensure consistency.

Interview questionnaires were designed for three broad groups: Chinese multinationals, their partner organisations and other external organisations

(government organisations and independent observers). Interviews with Chinese multinationals focused on their investment motives, modes and effects. While many of the questions were the same, some of them were modified to capture the distinctions between asset-seeking and asset-exploiting investors.

Meanwhile interviews with partner organisations and external organisations were quite different because they served a different purpose. Respondents from both types of organisations were asked to give their views and opinions on the investment behaviour of Chinese multinationals. Thus the semi-structured approach to interviewing aided the process of open discovery by enabling questions to be tailored towards different types of respondents.

Most of the interviews were conducted in English because all of the interviewees except for one were fluent English speakers. The only exception was the interview with Changan which was conducted in Chinese. A native Chinese speaker volunteered to simultaneously interpret the interview from English to Chinese and vice versa. The rest of the interviews were conducted in English without any problems. Many of the interviewees were native English speakers, while those that spoke English as a second language were confident enough to respond to questions and engage in discussion. The use of a professional interpreter would not have been possible given the financial constraints of the study.

The data was recorded through note-taking or the use of an audio recording device. The use of an audio recording device was the preferred method because it allows interviews to be played back repeatedly. This option ensures that nothing is missed and that the essence of the interview is captured. However, the use of audio recording equipment depended on the approval of interviewees. Some of the interviewees agreed for the interviews to be recorded while others did not. Interview data was captured via note-taking in cases where the use of audio recording devices was not approved. Although note-taking is an effective way of recording interviews, there is a risk that some important information may be missed or misunderstood.

Comparability of the two types of data was achieved by converting it into written form so that the end result was as close to the original as possible. The audio

recording was played back and transcribed. Each word, pause and gesture made by the interviewees was written down as it was said. The recording was played back several times to ensure that the words were written down accurately. Meanwhile the data recorded by note-taking was carefully reviewed immediately after the interview. The aim of this was to fill gaps, complete sentences and verify that the content made sense. This was done while the interview was still fresh in the researcher's mind and could be recalled correctly.

During the conceptual stages of this project it was envisaged that the questionnaires would be piloted before the interviews proper began. A pilot study refers to the 'trying out' of a particular research instrument (Baker 1999). In qualitative research a pilot study gives the researcher an opportunity to test the questionnaire for validity and reliability. Based on feedback from the pilot study the researcher can make necessary improvements before the questionnaire is administered to the main interviewees. In order to run a reliable pilot study it is necessary to involve interviewees who are representative of the group that will be included in the study proper but who are not from that particular group (Gillham 2000). The aim is to obtain feedback and comments which can be used to improve the questionnaire and therefore the reliability of the interview data.

By its very nature the research process is unpredictable and the process of recruiting study participants was more difficult than expected. Most of the organisations invited to participate declined and those that did were only prepared to commit to one interview per person. In most cases there was only one opportunity to talk to the participants because they were unable to spare any more time. Consequently there were no opportunities to run a pilot study with individuals from participating organisations.

Despite the advantages of pilot studies it has been argued that it is not always necessary to run a pilot study in qualitative research. This is because of the progressive nature of the interview process which allows researchers to improve questions, introduce new issues or add new topics as the interviews progress (Holloway 1997). According to this view there is no need to conduct a separate pilot study beforehand because improvements to the questionnaire take place as part of the interview process.

Given the impossibility of running a pilot study with individuals from participating organisations it was vital to ensure reliability and validity of the questionnaire by other means. This was achieved by requesting comments and suggestions from the supervisory team, several university lecturers and individuals from a Chinese company that was not included in the study. Fortunately some of the individuals were from China which was very helpful because many of the main interviewees were Chinese business people.

Some of the comments and suggestions related to the ability of Chinese interviewees to understand the questions. For instance one of the comments was that some questions used complex language while others were not clear. Such questions may be difficult to understand or could be misinterpreted by non-native English speakers. These questions were re-worded clearly and simply to ensure they could be fully understood by both native and non-native speakers.

Other comments related to the length of the questionnaire which helped to sharpen the focus on important topics through omission of questions that were less significant or interesting. Comments regarding overlapping questions helped to eliminate repetition allowing more time for exploration of key areas. This was also helpful in keeping the questionnaire focused given that time with the interviewees was very limited. Further feedback prompted organisation of the questionnaire into logical groups which would help interviewees give full answers. Logical grouping also enabled easier data analysis at a later stage of the research process.

Finally some of the feedback helped to identify sensitive or controversial topics. Managers from a Chinese company were asked if they would be willing to discuss particular areas of the internationalisation process and to identify topics which they would prefer not to discuss. Based on their guidance it was possible to change direct questions into indirect ones. Meanwhile topics deemed too sensitive were removed from the questionnaire and were replaced by other questions that Chinese firms would respond to more readily. The lack of opportunity to conduct a pilot study was offset by the inclusion of an alternative mechanism which relied on feedback from individuals who were not involved in the study proper. The aim of

this mechanism was to ensure the validity and reliability of the questionnaire which would in turn enhance the value of the interview data.

Duration

The collection of primary data took place between May 2011 and October 2012 over a period of approximately 17 months. The interviews were staggered throughout this period because of the time required to arrange the interviews. Most of the individual interviews were approximately one hour long on average. However some of the individual interviews were longer and took about one hour and 30 minutes. The focus groups consisted of three to five participants and lasted approximately two hours so that everyone was given an opportunity to contribute.

Location

The collection of primary data took place at the participants' business premises. The researcher undertook substantial travelling throughout England during the data collection period. Almost all of the interviews were carried out in-person except for one interview which was conducted by telephone. The table below shows the locations where data was collected between May 2011 and October 2012.

Table 5 - Interview locations

Company name	Location
Mahle; Cosworth	Northampton
Mindray	Huntingdon
Shanghai Automotive Industry Corporation (SAIC)	Birmingham
UKTI; Vanceinfo; Chinese SOE	London
Hytera	Slough
TP Link	Reading
Weigao	Southend-on-Sea
East Midlands Development Agency; Changan	Nottingham
PTG Holroyd	Rochdale
Dynex	Lincoln
Mediatech	Telephone interview

Source: Author's database

3.3.2.2. Secondary data

The process of secondary data collection was undertaken in parallel to primary data collection. Secondary data was gathered intermittently during this period with a view to complementing the interview data. It was particularly useful for building a detailed picture of the case study firms. Secondary data provided insight into their histories and backgrounds. It also provided information about their current activities in China and in overseas markets. Secondary data was a valuable source of information about the activities of Chinese multinationals in the UK. For instance the dates when an acquisition took place or details about its value and the companies involved. Secondary data about their current and historical behaviour contributed towards developing an in-depth understanding of their investment motivations and investment modes.

Secondary data was sourced through a combination of freely available public resources and subscription-based databases. Company websites were found to be a valuable source of secondary data e.g. Dynex Semiconductor, SAIC, CQME, TP Link, Hytera, Mindray, Weigao, Vanceinfo and Zhuzhou CSR Times. In some

cases the website content provided interesting material, while in others the websites were an access point for company annual reports, newsletters and presentations.

English versions of Chinese news portals such as China Daily, Xinhua News and China Business News were also an invaluable source of information on the international activities of Chinese firms. Nine articles were retrieved from China Daily, three articles from Xinhuanet and one from China Business News. Chinese government websites such as MOFCOM (four articles retrieved) were an important source of historical and contemporary investment statistics relating to outward investment from China.

General British news portals were also a rich source of information about Chinese investments in the UK. Two articles were retrieved from the BBC, one from the Guardian and one from Reuters. Economic portals helped to complete the picture by providing information on current issues. Namely three articles were retrieved from the Financial Times, five from the Economist and one from IB Times.

Specialised trade publications such as China Car Times (one article), Machinery Market (one article), The Engineer (one article), Electronics Weekly (one article), Techradar (one article), Marketing Week (one article) and PR Newswire (one article) provided detailed reports on news and events that Chinese companies are involved in. Non-government organisations such as OECD and UNCTAD were also reliable sources of secondary data. The OECD definition for FDI was used in this study while World Investment Reports for 2006, 2012 and 2103 provided investment statistics for China.

3.3.3. Data analysis

The overall approach to data analysis in this thesis is inductive. The data was examined from the "ground up" which involves reviewing the data until patterns or concepts begin to emerge (Yin 2014). The inductive analytic strategy was selected because of the qualitative approach of this study and its exploratory nature. Namely the study is not based on a set of initial theoretical propositions which it seeks to verify. Instead it is designed to explore the relationship between

investment motives, modes and effects of Chinese multinationals in the context of their interaction with British business partners.

3.3.3.1. Company overviews

Before the data analysis process began it was necessary to build an overview of each of the case study firms. This was achieved by collating secondary data from a range of sources including company websites, newsletters, presentations as well as online news portals and specialised trade publications. These sources provided vital background information about the firms such as ownership structure, primary activities, location and technological capacity. They also provided insight into the companies' domestic activities and their internationalisation efforts. The data was especially useful for gaining an understanding of their investment activities in the UK such as the date of entry and investment value for example. The background information about the firms was used as a basis for developing a comprehensive understanding of their investment motives, investment modes and investment effects on business partners in Britain.

3.3.3.2. Cross-case analysis

Once an overview was developed for each of the firms the process of data analysis was initiated. The data was analysed using a technique referred to as cross-case synthesis which is recommended for case studies that include more than one unit of analysis (Yin 2003, 2009, 2014). The strength of this analytic technique is that findings are likely to be more robust compared to those derived from a single case study. Each company is treated as an individual study and the findings are synthesised across all of the studies. For the purpose of this study cross-case synthesis was conducted using both primary and secondary data.

Data collection

The first stage of cross-case analysis involved collating the primary and secondary data into one place in preparation for analysis. This was done by importing all of the data into a software package called NVIVO designed to assist with qualitative data analysis. NVIVO is essentially a tool which helps researchers to organise their data more efficiently and is not designed to do any of the actual analysis.

Before the interview data could be imported into NVIVO it had to be converted into textual form. This process is also known as transcription and it involves listening to the interviews and writing them down. The transcription process was time-consuming as the interviews generated approximately 25 hours of audio data. Once the transcription was complete the textual files were imported into NVIVO. Not all of the interviews were recorded with an audio device. Some were documented through note-taking which meant that they were already in written format. These files were imported directly into the computer software package.

Next the secondary data was imported into NVIVO. This type of data was sourced primarily from company websites and a range of other online resources. It was already in textual form and could be imported into the software package without difficulty. Once the primary and secondary data had been centralised, the process of data analysis was initiated.

Data coding

The advantages of using a software package extend beyond its ability to store data in a centralised location. NVIVO was particularly helpful for categorising or coding data. The interview data generated approximately 120 pages of text which would have been difficult to code manually because of the sheer volume of data. Manual coding would have involved the use of highlighter pens to mark words or phrases which belong to a certain category. Different colour highlighters would be used to denote a different category. Manual coding poses great difficulty when it comes to arranging the categories into themes because of the number of categories available and the challenge of organising them into appropriate themes. The coding process tends to become even more challenging when particular words or phrases are recoded. Recoding is an inevitable part of qualitative data analysis. As the coding progresses the researcher's ideas evolve which is reflected in changes to the codes. Thus the dynamic nature of the coding process makes it particularly challenging if it is carried out manually.

To avoid the issues involved in manual coding, the data was coded with the assistance of NVIVO. Once all of the textual files were imported into the software the coding process was initiated. Certain words or phrases were assigned to a particular code. Each code had its own colour so that a distinction between

different codes could be made. The data was reviewed several times over to ensure that appropriate codes had been assigned. The advantage of using NVIVO is that it enables data to be recoded without difficulty. A further benefit of this software is that clicking on a code reveals all of the words and phrases associated with that particular code throughout the entire data set.

Conceptualisation

Once all of the interviews were reviewed several times and the coding stage was completed, the codes were then grouped together under common themes. This process was repeated until every code was assigned to a theme. For example codes such as "brand" and "technology" were assigned to the "motivation" theme because they reflected the reason for investment. Similarly codes such as "financial resources" and "access to overseas markets" were grouped under the "investment effects" theme. The end result was that clicking on a particular theme would reveal all of the codes associated with that theme. NVIVO proved to be a valuable tool during this phase because it enabled changes to be made to the codes and the themes. For example it was possible to move codes, together with all their text references, to another theme simply by using the drag and drop function. It was equally straightforward to delete an existing theme if it was no longer relevant, or to create a new one if new evidence emerged during the analysis.

Data analysis in this phase was conducted on two levels. First, conceptual links were made between the categories and their themes, ensuring that each of the categories was closely associated with the theme it was under. Second, on a higher level of abstraction, the themes were analysed to reveal the relationships that existed between them. The conceptual framework that emerged as a result of this analysis continued to be developed up to the point when it could sufficiently address the research question.

3.4. Limitations

The issue of generalisation has been the most widely criticised aspect of the case study research method. Namely, some methodologists observe that it is not possible to generalise on the basis of case study findings. Responses to these

criticisms by advocates of the case study approach are varied. Some accept that generalisations should not be made on the basis of case studies because they were not designed with this purpose in mind. Instead case studies are seen to have an exemplary function and it is believed that inferences can be made about them (Thomas 2011). The purpose of the case study is seen to be one of particularisation rather than generalisation (Stake 1995) whereby emphasis is placed on uniqueness.

Meanwhile other supporters of this research method believe that it is in fact possible to make generalisations on the basis of case study findings. However, in their view, it is first necessary to redefine the concept of generalisation in qualitative enquiry (Ward Schofield 2000) so that a distinction can be made between what is meant by generalisation in quantitative and in qualitative research methods. Yin, for example, proposes that case studies are generalisable to theoretical propositions and not to populations as would be the case in experiment-based methods (Yin 2014).

As an exploratory case study, the purpose of this research is not to generate a series of findings which can then be generalised to other populations of multinationals. Its aim is to develop a detailed understanding of the investment behaviour of a particular group of multinationals in the UK. This research explores the extent to which the investment motives and modes of Chinese MNEs influence the effects of their investments on business partners in Britain. The conclusions drawn on the basis of this study pose questions to existing theory and extend empirical knowledge of the effects of Chinese investment in knowledge intensive sectors. In short, this case study was designed to generate more questions than answers. It is possible that some of the inferences may apply to the behaviour of multinationals from other emerging markets such as India or Brazil. However these propositions would first need to be verified through further research.

The second limitation of case studies relates to the rigour with which they are undertaken. Case study research is sometimes criticised for lack of rigour compared to other research methods. This may be because there are fewer texts available on case studies (Yin 2014) compared to other research methods such as grounded theory for example. However there is still sufficient literature available to

ensure that case studies are undertaken systematically and thoroughly. In this research numerous books on case studies were consulted to ensure a high degree of academic rigour (Yin 2014, Stake 1995, Thomas 2011, Ward Schofield 2000). Some of the leading texts, such as the one by Yin, provide specific procedures on how the case study should be conducted.

The third and final limitation relates to the amount of effort required to conduct a case study. They can potentially be time-consuming and can generate large volumes of data that are difficult to manage (Yin 2014). This could be especially pertinent to multiple case studies that rely on interviews and observations as their main data collection techniques. However it is possible to conduct a multiple case study in a manageable way. In this research, for example, the number of interviews was limited which ensured that the data could be collected, transcribed and analysed on time. The interviews were supplemented by data from secondary sources which took significantly less time to collect. The use of software also helped to simplify and reduce the time required to carry out tasks such as data manipulation and analysis.

3.5. Credibility

The credibility of this research was enhanced through construct validity, external validity and reliability as suggested by Yin (Yin 2014). Construct validity was achieved through the application of data triangulation which involves collecting data from several sources. The logic is that findings are likely to be more convincing or accurate if they are based on different sources. In this case study, data was collected from a range of sources including: Chinese multinationals, partner organisations, government agencies, international news portals and specialised trade publications amongst others. The use of multiple data sources ensured that the conclusions were based on several sources and were therefore more compelling.

External validity was achieved by ensuring the generalisability of findings. Here, generalisability does not refer to a sampling logic whereby conclusions made on the basis of a case study are used to inform us about a population. Rather, generalisability refers to the ability of the study's findings to shed empirical

light on theoretical concepts. In this research the conclusions made about the motivations of Chinese investors challenge two existing theories on the internationalisation of firms from emerging markets. The two theories make different assumptions about the competitive advantages of firms from emerging markets, both of which were found to be deficient when applied to the case of Chinese multinationals.

Reliability was achieved by minimising the errors and bias in this case study. This was accomplished by closely following specific procedures developed by leading methodologists specialised in case study research. Texts by Yin and Stake were referred to extensively especially when it came to designing the study, planning data collection and undertaking data analysis.

3.6. Ethical considerations

The ethical considerations in this research are associated with interview data which was collected from a range of participants. These considerations pertain to data confidentiality and to the anonymity of the interviewees. The interviewees agreed to participate on the basis that their responses would be used solely for the purpose of conducting PhD research.

Once the interviews were finished the audio recordings were stored on a desktop computer located at Northampton Business School. Copies were also stored on a recording device which was kept in a locked cabinet at the university. Transcribed versions of the interviews were also kept in a secure cabinet and were not shared with any individuals or organisations outside the supervisory team. Once the study is completed, the audio and text versions of the interviews will be held securely for ten years. During this time the data will not be shared with anyone. Potential re-use of the interview data in conference papers or journals will be subject to additional consent from the study participants.

Most of the participants consented to having their organisations' names published in this thesis. The majority of the data provided is not commercially sensitive so the organisations had no reason for concern. The names of the participating companies are included in this study but the names of all interviewees are coded

as a precaution. The inclusion of interviewee names would not enhance the study. Instead the positions of individual interviewees in their respective organisations are listed under "interviewees" in the references section. Only one of the case study firms, Holroyd, had concerns regarding confidentiality and anonymity. The company agreed to participate provided that the name of the company and the names of individuals were not available to the public.

Given that this research is based on multiple case studies whereby background information is provided on each company, the idea of anonymity with regards to a company's name is, unfortunately, unattainable. Holroyd is a well-known machine tool manufacturer and the only company in this sector to be acquired by a Chinese partner. Despite the researcher's best efforts to anonymise the company's name, it would still be identifiable based on the background information provided. Thus Holroyd's name was included in this research without alterations. The issues of confidentiality and anonymity regarding Holroyd are resolved by requesting an embargo on the access to and use of this thesis until the individual participants agree for it to be lifted. At present the interviewees from Holroyd perceive that their positions in the organisation may be under threat if the data they provided becomes publicly available. It is therefore appropriate to have the thesis embargoed until the circumstances of the interviewees change e.g. when they retire, move to another company or the owners of the company change.

3.7. Concluding remarks

Having outlined the method used in this research, the following four chapters provide an in-depth examination of nine Chinese multinationals in the UK. Each case study focuses on the firm's activities in UK especially their reasons for investing, the modes that were employed, the challenges they faced and the effects of their investments. The next chapter investigates the investment behaviour of Shanghai Automotive Industry Corporation (SAIC) in the UK paying particular attention to these aspects.

4. Shanghai Automotive Industry Corporation (SAIC)

SAIC is owned and controlled by the Shanghai municipal government and its headquarters are in Shanghai. Today, a Fortune 500 company, its core business areas include R&D, manufacturing, sales, distribution and finance. SAIC manufactures both commercial and passenger vehicles. It is the largest automotive company in China selling 4.49 million whole vehicle units in 2012 (SAIC Motor Corporation Limited 2012a). Most of its sales in the passenger vehicle segment are generated through joint ventures with Volkswagen (VW) and General Motors (GM) which together accounted for about 90% of sales in 2012 (SAIC Motor Corporation Limited 2012c). SAIC's increasing success is illustrated by rapidly increasing profit rates.

Table 6 - SAIC profits 2009-2011

Year	2009	2010	2011
Total profit (RMB)	8.5 billion	26.5 billion	42 billion

Source: SAIC Annual Report 2011

4.1. SAIC overview

The company was founded in 1955 under the name Shanghai City Diesel Parts Manufacturing Company. Over the years it went through numerous name changes and in 1990 became known as Shanghai Automotive Industry Corporation (SAIC Motor Corporation Limited 2012b). The company's first car, the Phoenix was produced in 1958.

Figure 7 – The Phoenix

Source: SAIC Group website

SAIC's growing success was based on joint venture (JV) agreements with leading western automotive manufacturers. In 1984 Shanghai Volkswagen (SVW) was formed as a joint venture between Volkswagen and SAIC. The car produced by the JV was called the Santana and carried the VW brand (Thun 2006). VW was interested in the prospect of lowering its production costs while the Shanghai municipal government saw the international JV as a development opportunity for the automotive industry and the city of Shanghai in general. SVW and AMC Jeep were one of the first foreign multinationals to enter the Chinese market. Initially they set up basic assembly facilities with low local content and even less local knowledge content. SVW was very successful in the 1980s and 1990s because its products were superior to those offered by domestic manufacturers and the company was not facing strong competition from other foreign MNEs (Zhao, Anand & Mitchell 2005).

In 1997 Shanghai General Motors was formed as a joint venture between General Motors and SAIC. The joint venture launched the Buick New Century into the Chinese market in 1998 (SAIC Motor Corporation Limited 2012b). Most of the local knowledge content in international automotive joint ventures was limited to adaptation or localisation of existing products such as changes to a car's length, re-design of its interior and exterior or the fitting of a new engine. The SGM joint venture made 600 engineering changes to the Buick Century to make it more suitable for Chinese driving conditions and regulations. For example elevation of rear seats, increased rear leg room and modification of suspension in line with Chinese road conditions (Zhao, Anand & Mitchell 2005).

It has been argued that the SVW and SGM joint ventures in China have enhanced in-house production capability as a result of technologies and relevant technical support provided by international parent companies VW and GM. The purpose of technology transfer was to improve local productivity and product quality. In contrast their capacity to develop new vehicles in-house remained modest (Nam 2011). Most foreign parent companies limit their engineering support to local adaptation of imported technologies such as minor vehicle interior modifications suited to local preferences. While this is true of SVW, GM has made more effort to upgrade local engineering capability than any other foreign vehicle manufacturer in China. Rather than being limited to technology adaptation, GM intends to expand

into more significant vehicle development and engineering in its China based Pan-Asian Technical Automotive Centre - PATAC (Nam 2011).

Despite the commercial successes of joint ventures with GM and VW, SAIC had limited know-how when it came to vehicle design and development. The Chinese based joint ventures had primarily been set up for production purposes rather than vehicle engineering. Consequently the opportunities for technological learning were limited. Secondly there was the issue of brand. SAIC was successful at marketing vehicles with established western brand names such as GM and VW but it did not have its own brand. SAIC's ambitious plans to become one of the world's top automotive manufacturers meant that it could no longer rely on foreign brands and needed to develop its own.

4.2. MG Rover overview

Though Rover was established towards the end of the 19th century its early history is associated with several British automotive manufacturers. Rover's history can usefully be divided into three phases (Holweg, Oliver 2005). During the first phase between 1900 and 1950 MG Rover consisted of a number of independent companies including Alvis, Austin, Morris, Rover, Riley, Triumph, Wolseley and others.

The second phase from 1950 to1970 marked a period of integration where the majority of British car manufacturers were brought together under a single organisation called the British Motor Corporation (BMC). The British Motor Corporation, later renamed British Leyland Motor Corporation BLMC, was created in an attempt to create a consolidated British automotive company capable of competing with US rivals. BLMC achieved large production volumes in the early 1970s but failed to integrate its operations across the different companies.
The third phase marks the company's continuous decline from 1970 onwards. Poor financial performance led to its nationalisation in 1975. At this point its name was changed to British Leyland (BL). In 1979 British Leyland joined forces with Honda in order to develop new models and changed its name to Austin Rover in 1982. Five years later the company changed its name yet again to Rover Group in 1987. It was sold to British Aerospace in 1988 and subsequently to BMW in 1994.

By 2000 the Rover Group was making heavy losses and BMW took the decision to sell. It was bought by venture capitalists – the Phoenix Group who renamed the company MG Rover.

4.3. SAIC's entry into the UK

As MG Rover's financial decline continued under the ownership of the Phoenix Group it explored JV opportunities with a number of Chinese companies between 2000 and 2005. MG Rover was seeking funding in exchange for product designs. Meanwhile SAIC's success was primarily built on joint ventures with VW and GM. It lacked proprietary intellectual property which was a hindrance to its growth and a potential threat. In 2000 SAIC began to explore ways in which it could create its own designs, intellectual property and products. That way it would gain independence of its JV partners' brand names and have its own (Interviewee A1 2012).

Negotiations between MG Rover and SAIC began in 2004. SAIC bought the intellectual property of two models and several engines from MG Rover (Holweg, Luo & Oliver 2005). It was hoped that a full joint venture would be formed between the two companies but this did not happen. SAIC was concerned about MG Rover's financial position and was not prepared to take on significant redundancy and pensions liabilities. SAIC decided not to go ahead with the joint venture. Meanwhile MG Rover could no longer cover its operating costs and consequently went into administration in 2005.

Its remaining assets were sold to Nanjing Automobile Corporation (NAC). Most of the production lines were moved from Longbridge to China. NAC resumed production of the MG TF sports car in Longbridge using complete knock-down kits from China (Bailey, Kobayashi & MacNeill 2008) but only a limited number of units were made because of quality concerns. SAIC bought the intellectual property rights to the Rover 25 and 75 and the replacement model for the Rover 45 which was in development when the company went into administration (Bailey, Kobayashi & MacNeill 2008). In 2007 SAIC acquired NAC's car manufacturing business giving it access to the assets that NAC had bought from MG Rover a few years earlier.

Following the collapse of MG Rover approximately 600-700 product development engineers were made redundant. Some of them went to Bentley, Jaguar Land Rover, Lotus or Aston Martin while others had previously been involved in discussions with SAIC. SAIC recognised this as an opportunity and acted fast to secure the best people (Interviewee A2 2012). A new company called "2010 Consultants" was set up in 2005 to deliver engineering services exclusively to SAIC. SAIC employed the services of Ricardo, a British automotive consultancy based in Leamington Spa, to set up and run the organisation. In return SAIC provided the funding. "Ricardo 2010" was set up within six weeks and started work immediately. The newly established consultancy grew rapidly from 70 to 300 employees and was largely staffed by former MG Rover engineers with expertise in designing and engineering cars (Interviewee A1 2012).

SAIC had acquired the designs to Rover 75 which was adapted to manufacturing for the Chinese market. All the engineering was done in the new company and paid for by SAIC. The first car launched in China under SAIC's own brand was a modification of the Rover 75, an upper medium saloon, which was made slightly larger for the Chinese market (Interviewee A5 2012).

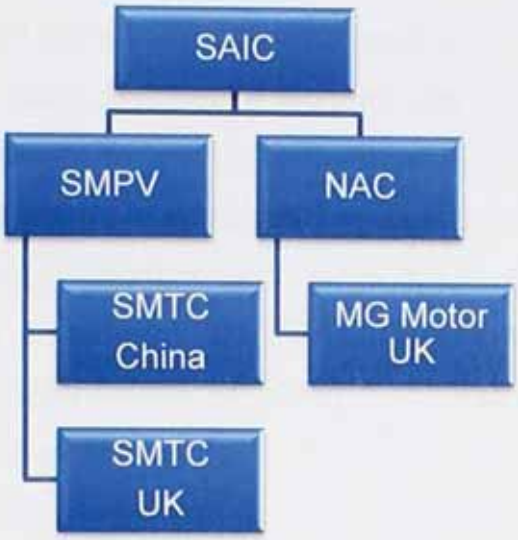
Figure 8 - Roewe 750

Source: SAIC Group website

For the first two years the UK engineering centre supported the engineering activities of SAIC's self brand group called Shanghai Motor Passenger Vehicles (SMPV). Within SMPV there was another company called Shanghai Motor Technical Centre which was the engineering group based in China. In 2007 when SAIC was content with the proposition they bought "Ricardo 2010" and changed its name to Shanghai Motor Technical Centre UK (SMTC UK) (Interviewee A1 2012).

The company was based on Ricardo's premises in Leamington Spa until 2008 when it was moved to Longbridge, a suburb of Birmingham. It joined the manufacturing company MG Motor which was already operating at the site and was owned by Nanjing. Two sister companies were effectively operating at the same site – the engineering company SMTC UK and the manufacturing company MG Motor. The two companies represent separate legal entities although they share the same parent company – SAIC.

Figure 9 - SAIC's organisational structure in the UK



Source: Author's interpretation

It is clear from SAIC's initial activities that its investment strategy in the UK was cautious, gradual and risk averse. A direct takeover of MG Rover would have carried a high degree of risk given MG Rover's pension scheme liability for 6,000 employees and the urgent need to invest in new models (Interviewee A4 2012). Instead SAIC pulled out of joint venture talks and waited shrewdly for MG Rover to file for bankruptcy. The Chinese automotive giant then acted swiftly to set up a new company with former MG Rover employees.

SAIC's lack of experience and familiarity with the UK market meant that it may have had difficulties in setting up the business by itself. It did not have particularly high levels of exposure to the UK or European environment, the legal and human resource requirements (Interviewee A2 2012). So SAIC engaged the services of Ricardo, a reputable and experienced British automotive consultancy to set up and manage the business. As expected Ricardo's execution was efficient and the

company was established and operational within a matter of weeks. Ricardo took much of the worry out of SAIC's investments in the UK. They set up the business and also recruited local experts to do the engineering work. SAIC's investment strategy was gradual in the sense that the engineering centre was owned by Ricardo for the first two years. SAIC acquired "Ricardo 2010" only once it was assured of its stability.

The joint venture with Ricardo initially allowed SAIC to have relatively less commitment than would have been the case if a wholly owned subsidiary had been set up. The financial investment into "Ricardo 2010" was substantial but SAIC did not have too much emotional or structural investment which meant that they could easily disinvest if the business did not go to plan (Interviewee A5 2012). The venture with Ricardo also minimised SAIC's risk as the set up costs and risk levels were known in advance. The facilities were provided by Ricardo so SAIC did not have to develop its own facilities or provide any equipment such as desks, chairs or IT equipment. "So if SAIC decided to pull out they could just take it all with them" (Interviewee A4 2012). SAIC had fixed costs and knew exactly what they were spending.

The decision to set up an engineering centre under Ricardo worked to SAIC's advantage in terms of engineer recruitment. MG Rover's failure meant that large numbers of automotive engineers were looking for employment. One of the things that made joining SMTC UK a more attractive proposition was that it was under the umbrella organisation of Ricardo rather than a Chinese company. Not many people in the UK knew about SAIC at the time and "were cautious of going and working for a Chinese organisation" (Interviewee A5 2012). Thus the joint venture with Ricardo presented a friendlier front to potential employees. As SAIC became more established it began to been seen as a suitable employer in its own right. SAIC's later takeover of "Ricardo 2010" and integration into the SAIC group was therefore an acceptable course of action.

4.4. Investment motives

It is widely argued that Chinese companies invest in developed economies to enhance their competitiveness. Some researchers believe that by investing abroad Chinese companies gain access to certain assets which may enable them to compete more effectively against leading players (Deng 2007, Huaichuan, Yip 2008, Deng 2009). Meanwhile others have argued that Chinese multinationals engage in international acquisitions to address competitive disadvantages (Child, Rodrigues 2005). The literature has identified several types of strategic assets that are likely to be accessed by Chinese companies in developed economies. They are: technology, R&D skills, brands and distribution channels (Clegg, Voss 2012, Child, Rodrigues 2005). The case of SAIC's investment activities in the UK follows patterns identified in the literature. SAIC was pursuing three key strategic assets when the decision to invest in the UK was made – brand, technology and know-how. These investment motives are addressed in the following three sections and are different for each of the examined firms.

4.4.1. Brand

SAIC's home market success was based on brands owned by leading multinationals such as GM and VW. However the company's aspirations to become a world class automotive manufacturer meant that it would need to develop a brand of its own. They wanted to position their own brand as being a quality level above domestic brands and "more comparable to the imported brands in the Chinese market" (Interviewee A5 2012).

SAIC acquired the "MG" brand from MG Rover which is the brand currently in use in the UK. But they failed to acquire the "Rover" brand which is owned but not used by Ford. Ford exercised the right to buy the brand in order to protect its range of off-road vehicles. In order to capitalise on the brand values associated with the "Rover" brand, SAIC created the "Roewe" brand which had the "same logo and similar brand concept as Rover" (Interviewee A1 2012). SAIC acted swiftly to create a new "Roewe" badge which closely resembled Rover's. The values of the "Rover" brand were very much translated into the newly created "Roewe" brand for the Chinese market focusing on themes such as Britishness, quality, comfort and tradition (Interviewee A4 2012).

Figure 10 - Rover and Roewe badges

Source: SAIC website

The "Roewe" brand is portrayed as being European in the Chinese market because of the additional value that this adds to the brand (Interviewee A4 2012). The fact that SAIC's cars have been engineered in Europe, according to European standards and are on sale in Europe adds to the brand's credibility (Interviewee A5 2012). Moreover the link with a UK manufacturing centre adds to the perceived quality of "Roewe" products. One of the main reasons for having a manufacturing centre in the UK is to try to change the perception of Chinese goods. A UK manufacturing base entitles SAIC to market their cars as British not Chinese because they have been designed and developed in the UK. SAIC is very much intent on presenting the company as British. Until recently any external contact with journalists for example was the responsibility of British employees rather than Chinese.

However, in reality, the cars on sale in the UK are actually manufactured in China and then assembled in the UK (Interviewee A5 2012). The cars are transported to the UK in semi-knock down kit form which effectively means that the cars arrive 90% built. Once the kit arrives at the Longbridge plant the sub-frame is taken out from the car and the engine is fitted. Next the suspension is then put on and bolted into the car. Finally the exhaust is fitted and the car is filled with water and oil.

Marketing material in China plays heavily on the UK link as well as the European link. British icons such as Big Ben or the Houses of Parliament are readily used in marketing in China. It is an image which people can immediately associate with Britain (Xu, Hu & Fan 2011).

4.4.2. Technology and know-how

SAIC's lack of proprietary intellectual property meant that SAIC had a fundamental problem when it decided to launch its own products. They had "many many students and graduates that were coming out of college and university" (Interviewee A2 2012). They came from strong educational backgrounds and possessed theoretical knowledge but lacked the practical skills and experience required to design and develop a car. For example if there was a problem with an engine they would not have the experience to solve it (Interviewee A7 2012).

SAIC engineers were seen to be very intelligent and well-educated but they lacked "business or real-life experience of the business" (Interviewee A6 2012). Even the more experienced engineers from the VW and GM ventures had limited experience because they used finished designs developed not by themselves but by their foreign JV partners. They have "no experience in initial and concept development, their understanding of building a car from scratch is pretty poor" (Interviewee A1 2012).

When the own brand was set up, a handful of key people were recruited from different areas within the company. Noticeably few engineers were recruited from existing JVs. SAIC also looked outside of the UK for technical experts. They looked in America particularly for Chinese Americans working for companies like GM or Ford. At the time the companies were going through a financial crisis so there were people available. Some of them were recruited by SAIC and currently hold senior positions in China because of their experience (Interviewee A3 2012).

SAIC had acquired intellectual property rights to two models developed by MG Rover, the Rover 75 and the Rover 25 which allowed it to quickly launch a car into the Chinese market under its own brand. The original Rover 75 was modified slightly before being launched as the Roewe 750. Although useful in providing a head-start, the finished designs did not solve SAIC's problem of new product development. They still lacked the skills and experience required to design and develop new vehicles.

The decision to set up an engineering centre in the UK was designed to give SAIC access to the engineering skills and experience it lacked. The company's

leadership recognised that they needed some help in developing new products relatively quickly to a high standard and quality. They knew that this would be faster than relying solely on SAIC's internal capacity. Through its UK base SAIC was able to access 250-300 experienced former MG Rover engineers to provide technical input into the development of new vehicles.

The technical expertise provided by SMTC UK consists of four main areas: design; power train technology; new vehicle concepts and European projects (Interviewee A5 2012). Design is very important to SAIC as it is used as a main selling point in China. Power train technology relates to engines and transmission especially conceptual design. In terms of new vehicle concepts the largest ongoing project is a range of new vehicles which are planned to be launched in China in two or five years time. Finally European projects involve re-engineering of vehicles which exist almost exclusively in China for the European market.

The first product developed by SMTC UK, the Roewe 750, was a simple makeover of an existing product, the Rover 75. The next product, the Roewe 550 was based on the Rover 75 design but it was changed significantly. Since then most of the products developed by British engineers have been new. The new generation of products are based on internally generated ideas rather than the adaptation of technical solutions created elsewhere (Interviewee A5 2012). SMTC UK engineers are applying innovative thinking in terms of new features and tackling basic engineering problems such as vehicle mass reduction or keeping vehicle size down while optimising occupant and luggage space.

Figure 11 - Roewe 550

Source: SAIC Motor website

According to British engineers at SAIC they have expertise in chassis which relates to the dynamic performance of the car. Their strength lies in the fact that they have been driving for many years and are well positioned to assess a car's character i.e. the way it feels to the customer (Interviewee A4 2012). Although numerous elements of a car's dynamic performance can be measured objectively, it is the more subjective factors such as safety and reliability that form the final impression of a car's performance. British engineers have the ability to assess and link subjective customer thoughts with objective measures used to design a car.

They perceive that their expertise in upfront concept design has also proved invaluable to SAIC (Interviewee A4 2012). In this respect the role of British engineers is to start from a blank sheet of paper and suggest a basic design e.g. the layout, identification of hard points, basic component shapes and some initial analysis to show the car will be strong enough. Subsequently the design is passed over to Chinese colleagues who are skilled at detailed design, optimisation and refinement because of their experience of localising existing designs. Chassis engineers in the UK also carry out "downstream tuning and finessing" because of their understanding of customer preferences (Interviewee A4 2012). The tuning adjusts the feeling of a car to make it feel more sporty or comfortable for example. The UK chassis team also does initial tuning for Chinese cars such as the original damper tuning for the Roewe 550.

SMTC UK also provides expertise in design. According to one of SAIC's designers, most of their work is on brand new clean sheet of paper design cars (Interviewee A2 2012). They are currently heavily involved in a program which did not exist six months ago. The design team is developing a "vehicle platform which will be used to build a number of vehicles for the Chinese market" (Interviewee A2 2012). The project involves detailed, difficult, high IPR work. The UK design team is also responsible for more straightforward projects such as taking a car that is already engineered for China and then modifying it back for the European market. Modifications may include right hand drive or EURONCAP requirements for example.

Initially the role of the UK engineering centre was to do the initial work using their expertise in design and concept design. "It would move over to Chinese

colleagues who would then develop the design and go through testing processes because they were then using that as a learning process in China" (Interviewee A3 2012). The UK is now moving away from mainstream engineering to upfront development such as common platforms. The focus is more on "problem-solving, engine development, safety and fuel efficiency" (Interviewee A7 2012). Meanwhile the more general, basic vehicle engineering is now being handled in China. At the moment the UK team is the lead for common platforms and multiple models off the same platform but it is likely that this will also get transferred to China in the future.

From an SMPV point of view, the UK technical centre is "the most important part of the engineering group because of the high skill level it has relative to China" (Interviewee A3 2012). Europe is still considered to be the world's centre for automotive technology. SMTC's European location means that there is frequent contact with other European companies which lead technological advancements. Having been part of a mature industry for many years, British engineers have an "awareness of the European automotive industry in terms of products, trends, suppliers and technological advancements" which would take Chinese engineers years to develop (Interviewee A5 2012). SMTC UK is currently exploring fuel economy improvements in terms of different types of hybrid and energy saving techniques, as well as improvements in aerodynamics. A large part of their job is to "understand where everyone else is going. Go to the seminars, talk to the engineering service providers like FEV and Ricardo and figure out which way things are going" (Interviewee A3 2012).

Aside from technical skills SAIC is also gaining access to management skills via the UK technical centre. SAIC's senior managers' exposure to the global workplace has been limited in the past and part of their involvement with SMTC UK is about learning new management practices (Interviewee A7 2012) and developing their business skills (Interviewee A6 2012). By visiting their UK base, Chinese managers can access managerial knowledge which is either non-existent or limited in the Chinese organisation (Interviewee A5 2012).

SMTC UK does not only provide access to British technical and management expertise but also acts as a channel for accessing knowledge externally. This is

achieved primarily through interaction with local universities and automotive consultancies.

Academic knowledge is one of the UK's key strengths. Some UK universities have particular competencies in automotive R&D and therefore represent a highly valuable source of technical knowledge. SMTC UK has ongoing research projects with a number of local universities such as Coventry, Birmingham, Warwick, Loughborough, Cranfield, Brunel, Imperial College London and Cambridge (Interviewee A1 2012, Interviewee A5 2012, Interviewee A3 2012). Most of the projects are technologically focused and involve work on specific technological advancements.

SMTC UK is also working with local universities to provide placements for undergraduate and postgraduate students. From a company point of view, this is an effective way of generating engineering talent internally. Fresh graduates were brought in to SMTC UK for the first time in 2011 and it is hoped that they will contribute with "new ideas, new perspectives and perhaps less conventional approaches towards problem-solving" (Interviewee A5 2012). Student or graduate placements are also a good way of recruiting new talents. Once students have spent time on a project, the company can then identify those students it would like to attract into the business upon completion of their studies. SMTC UK recognises the importance of keeping up with the latest technologies and continually "developing its skills in order to support SAIC in expanding its technical expertise in China" (Interviewee A3 2012).

Despite the decline of British automotive manufacturers and suppliers, Britain is still a very strong base for vehicle development and engineering. SMTC UK has good links with local consultancies and service suppliers in the automotive and other cognate sectors. Limited facilities at the centre's Longbridge site mean that they often use services provided by local external organisations. For example SMTC UK often uses Mira's test track and Milbrook's crash testing service (Interviewee A1 2012).

They are also working on R&D projects with other local automotive consultancies such as Ricardo, FEV and AVL (Interviewee A3 2012). SAIC engineers are

currently working with Ricardo engineers on power train technologies. They are developing new energy components, designs and systems. So far "they have developed a hybrid gear box which is the most advanced system to come out of the SAIC-Ricardo relationship" (Interviewee A1 2012). SAIC can also rely on British colleagues to tap into the technologies embedded within "Formula 1 companies located in the Midlands" (Interviewee A7 2012).

Knowledge is transferred from SMTC UK to SAIC in China largely through staff mobility between the two countries. The UK engineering centre has engineers who are temporarily and permanently based in China. At the time of writing approximately 20 UK engineers were in China for the purpose of transferring engineering knowledge, experience and attending meetings (Interviewee A7 2012). Many UK engineers visit China once a month. Most of the interviewees had visited the parent company on a number of occasions for training purposes. For example the Quality Systems Manager visited Shanghai twice to deliver training (Interviewee A6 2012), while the Deputy Director of Power Train Integration was based in China for three and a half years. His role was to set up the power train program management group which was created to manage the development of power train (Interviewee A3 2012).

Similarly there is a constant stream of people from China visiting the UK for varying lengths of time. Placement duration may vary from a couple of weeks to several months and sometimes even longer (Interviewee A5 2012). Chinese engineers travel to the UK to support ongoing engineering work but also to develop their technical skills. There are also 10 people from China who are permanently based in the UK (Interviewee A5 2012). Some of them are in the UK in a managerial capacity while others have supportive roles.

Transferring information can be difficult because of language and other cultural barriers so the role of support staff can be quite important in terms of reducing these barriers. Initially it was thought that visits from Chinese colleagues would be quite frequent. It was planned that they would spend six months working on a project in the UK which would then be taken back to China for finalising. This would have been a very effective way of transferring implicit or complex technical

knowledge to Chinese colleagues, however in practice this was difficult to achieve because of strict visa requirements for Chinese nationals.

4.4.3. Evolving technological capabilities

In the past Chinese technological capabilities were largely based on imitation. However it has been argued that, today, their strategies are based more on the creation of proprietary technology (Xie, White 2006). Chinese firms are achieving technological upgrading through several means. Firstly they are investing heavily in internal R&D in terms of facilities and personnel. Secondly they are forming linkages with foreign multinationals that have R&D centres in China. Thirdly Chinese firms are increasingly setting up offices and R&D offices abroad from where they can access and acquire foreign technology.

There is general consensus amongst industry analysts regarding innovative capabilities of Chinese automotive companies. Their production capabilities have been upgraded significantly but their innovative capabilities remain modest for the time being. However there are signs that this is beginning to change. A great deal of effort is being put into the technological upgrading of the Chinese automotive industry at national and firm level. The national government is actively supporting and encouraging innovation in areas such as hybrid vehicles and hydrogen fuel cells (Altenburg, Schmitz & Stamm 2008). Meanwhile Chinese companies are investing heavily in R&D. According to Geely's Vice President and President of its research institute, the company is investing 10% of its annual sales revenue into R&D (Geely Group 2012). Chinese automotive manufacturers are also upgrading their technology through international acquisitions e.g. SAIC's acquisition of intellectual property from MG Rover and more recently Geely's acquisition of Volvo.

SAIC is making substantial investments in R&D staff and facilities in China. They built brand new engine and vehicle factories. The engineering centre has world class facilities and is located on a completely new site. It has new offices, facilities and a design studio. The centre's facilities include engine test beds, transmission rigs, rolling roads, cold and hot chambers, wind tunnels and a power train testing facility (Interviewee A3 2012). The centre currently houses 2,500 engineers and it

is expanding rapidly. SAIC is continuously investing in engineering talents through annual recruitment of university graduates.

Figure 12 - Roewe production line in China

Source: SAIC Group website

Figure 13 - SAIC building in Shanghai

Source SAIC Group website

Though most of SAIC's investments are in China, the company's UK technical centre in Longbridge has also seen considerable investment (Interviewee A5 2012). The office building has undergone substantial improvement to get it back up to a standard where it could be used. A design studio was built with all the necessary equipment and it is currently being expanded. When the centre was first relocated to the Longbridge site it had a very small workshop which has since been moved and expanded. From a manufacturing point of view considerable investment has gone into the facilities needed by MG Motor. SAIC is also investing

in engineering talent in the UK. In the beginning the technical centre started off with about 70 people and today it houses well over 200 engineers. Furthermore the centre operates a student placement scheme and is recruiting graduates annually as part of its strategy to attract young talent.

SAIC's investments in people and facilities both at home and abroad are starting to have an impact on the company's technological capabilities. Chinese engineers are learning rapidly and as a result the main engineering of car development is now actually located in China (Interviewee A7 2012). Initially when designing a car from the very beginning the UK technical centre would do the initial concept designs. The designs would then be passed over to engineers in China for development and testing. While the UK team still does some of the upfront design work, "the main engineering of car development is actually located in China" (Interviewee A4 2012).

Over time the teams have become much more integrated and now form a very large global engineering group. The UK team does not necessarily take the lead with every project. Rather the type of project determines whether Chinese or British engineers take the lead role. The evolution of Chinese technological capacity is illustrated by the way in which work used to be allocated between engineering teams. In the early days the UK engineering team would develop new technologies which would then be passed over to Chinese engineers at a later stage. Today, the work is passed on to Chinese engineers at a much earlier stage than before (Interviewee A3 2012).

Chinese engineers have developed expertise in specific areas such as chassis that deals with the analysis of components. "There is a large team of engineers that are able to run modelling and optimisation of structures for weight and stiffness " (Interviewee A4 2012). SAIC has concentrated on developing expertise in this particular area and now has a very competent team in China. Chinese engineers have also developed competencies in new energy technologies beyond those held by the UK technical centre. SAIC has set up a New Energy Power Train (NEPT) Centre in China specialising in C02 issues, hybrid and electric vehicles (Interviewee A3 2012). UK engineers have limited knowledge in this area so most of SAIC's investment is directed towards developing skills and expertise in China.

The centre of expertise for new energy power train and electric vehicles is actually held by Chinese engineers.

4.5. Investment challenges

SAIC encountered a series of challenges when investing in the UK. The acquisition of strategic assets requires good communication and knowledge sharing which may not be easy to achieve because of differences between British and Chinese organisations. The challenges identified by SAIC can be categorised into two major groups: cultural and organisational.

4.5.1. Cultural

Existing literature shows that cultural differences can have significant effects on knowledge transfer (Bhagat, Kedia & Triandis 2002, Kedia, Bhagat 1988, Simonin 1999). Numerous studies on inter-organisational knowledge transfer suggest that the effects are largely negative. For example research on knowledge transfer in joint ventures finds that cultural differences between international JV partners may hinder knowledge sharing (Buckley, Casson 1996, Hanvanich et al. 2005, Lyles, Salk 1996). In the same vein it has been suggested that cultural compatibility between IJV parent companies facilitates learning from foreign parent companies (Lane, Salk & Lyles 2001). Others highlight that cultural differences negatively affect the longevity of strategic alliances (Parkhe 1991). Meanwhile some have found cultural distance to be a frequent cause of misunderstanding between individuals (Bresman, Birkinshaw & Nobel 1999).

Studies on intra-organisational knowledge transfer are also insightful in highlighting cultural challenges to knowledge transfer. There is evidence that knowledge transfer is likely to be successful if the subsidiaries are culturally aligned. Conversely it is likely to be constrained when subsidiaries with different cultural dynamics are involved (Lucas 2006). Knowledge transfer within the firm can be impeded as a result of an arduous relationship between the source of knowledge and the recipient. That is to say when the relationship is laborious and distant this is likely to lead to difficulties in knowledge transfer (Szulanski 1996).

Three aspects of cultural differences were identified as being particularly relevant to SAIC's investment activities in the UK. The first is the concept of face (mianzi) which is vastly important in Chinese culture. Giving face to others and saving one's own face is an essential part of daily interaction amongst Chinese people (Buckley 2010). The question of face has caused difficulties in relationships between British and Chinese employees at SAIC.

The issue of face has shown to be a significant barrier to communication. "It can be very difficult to get to the bottom of what actually happened, because there is, particularly from the Chinese colleagues, this whole issue of face and not wishing to lose face" (Interviewee A5 2012). When there is a problem British colleagues start to ask questions but are met with silence as Chinese colleagues are not prepared to say what has gone wrong. In an attempt to resolve the problem British engineers try to get in touch with Chinese colleagues but telephone calls are not answered and emails are not replied to. Sometimes it can be extraordinarily difficult and the only way to understand the problem is to be on the ground in China with the people that are involved.

The second aspect is that of trust which plays a significant role in Chinese business culture. It is key to building strong long-term relationships with Chinese employees, managers and government officials (Buckley 2010). Building trust has been an important aspect of establishing good relationships between Chinese and British colleagues at SAIC. One British engineer finds that frequent visits to China are especially important because they provide an opportunity "to build up rapport and relationships" (Interviewee A5 2012). Aside from spending time on project activities he feels that it is equally important to socialise with Chinese colleagues in a less formal setting e.g. having tea or lunch together. In his view, far more is achieved in this sort of environment and it is an effective way of building trust. Once the engineers are back in their respective countries communication and knowledge sharing becomes much easier.

Engineers that spend a quarter of their time in China "tend to get quite well integrated into the business" and communication on a daily basis appears to be relatively straightforward (Interviewee A2 2012). They have had a chance to get to know and trust their Chinese colleagues in professional and social settings. On the

other hand, the situation is rather different with British engineers who visit China every year or two. They lack personal relationships with Chinese colleagues and there is a lack of trust which makes communication and knowledge sharing difficult.

The third aspect of cultural differences relates to communication. Most communication issues arise out of the inability of Chinese and British colleagues to understand each other's language (Interviewee A1 2012, Interviewee A7 2012). Not many former MG Rover engineers speak Chinese. Although they did attempt to learn their efforts were unsuccessful and SAIC recognised that it would be easier for Chinese employees to learn English instead. Consequently SAIC "now only employs English speaking Chinese" (Interviewee A7 2012). The situation is somewhat improved when it comes to Chinese engineers many of whom speak English with varying degrees of proficiency. The language barrier can cause misunderstandings amongst employees which may in turn lead to difficulties in knowledge sharing.

4.5.2. Organisational

There are significant organisational differences between British and Chinese firms which can sometimes cause frustration and lack of cooperation amongst employees. They key organisational differences identified in this section are hierarchy, management practices, bureaucracy and state influence.

The most noteworthy difference that has emerged out of the interview data is the issue of hierarchy. British staff repeatedly highlighted that Chinese companies are much more hierarchical than British organisations (Interviewee A2 2012, Interviewee A5 2012, Interviewee A4 2012, Interviewee A3 2012). This is clear from SAIC's lengthy approval processes whereby huge amounts of time effort are spent on writing reports and preparing presentations. For example obtaining approval to start a new project takes "many weeks rather than a couple of days" and involves obtaining approval at SMTC UK level, company level and finally at main board level over many iterations (Interviewee A5 2012).

From a British perspective, Chinese management is very much based on the "issuing of instructions" (Interviewee A5 2012) and "following orders" from senior employees (Interviewee A4 2012, Interviewee A3 2012). Instructions from China often "come in the form of one line emails" (Interviewee A4 2012) and they are expected to be "followed without question" (Interviewee A2 2012). Although they may have open discussions major decisions are ultimately made by senior managers in Chinese organisations (Interviewee A7 2012). In the UK hierarchy is less important. It is "more about having an open discussion" (Interviewee A5 2012) where the lowest engineer can express his opinion to a senior individual and if the project does not go to plan they can then resolve it together (Interviewee A3 2012). In Chinese organisations decisions are always made by senior managers which can sometimes be time consuming. This is quite frustrating for British engineers who are used to making decisions themselves. They are used to a higher degree of empowerment than they are granted at SAIC (Interviewee A3 2012)

Chinese management practices differ significantly from the way businesses are managed in Britain. British employees perceive that they are closely controlled or "micromanaged" by their Chinese parent company (Interviewee A1 2012, Interviewee A7 2012). Business practices have been exported from China which British employees find "frustrating and stifling". The management has introduced Chinese operating procedures e.g. procurement procedures which are "long, involved and very bureaucratic" (Interviewee A1 2012). One of the managers in charge of finance finds that micromanagement erodes job satisfaction and creativity in his role (Interviewee A7 2012).

From a British perspective the organisation has become more formalised and everything is managed from China. Decision-making is seen as centralised and there is little delegation. British employees are accustomed to different management practices whereby delegation and collective decision-making are more prevalent. In contrast Chinese managers are used to having the final say and their decisions being implemented without question. This management style has been described as "dictatorial" (Interviewee A6 2012). However it is also true that British and Chinese teams are managed differently. Chinese managers have to "modify their approach to make it successful" (Interviewee A2 2012). Their

management style is less aggressive than it is when managing Chinese employees.

Chinese managers have a different approach to planning than British managers. For example if a problem is identified they will not resolve it immediately. "They'll let it get to a certain point and then they'll throw every amount of resource to actually get the problem fixed" (Interviewee A7 2012). In contrast the British approach is to make plans for resolving the problem shortly after it has been identified. The Chinese management style also differs with regard to strategy. They tend to formulate long-term five year strategies, whereas Western companies are "about instant rewards and returns" (Interviewee A7 2012).

The level of bureaucracy is quite high in Chinese state-owned enterprises such as SAIC compared to British run businesses (Interviewee A2 2012, Interviewee A7 2012, Interviewee A3 2012). The organisation is laden with paperwork and processes. A good illustration of this is purchasing orders at SMTC UK which require multiple signatures before they can be approved. The same lengthy process applies regardless of the item's value. For example "purchase orders that have been pre-approved require one signature, then another, then another" (Interviewee A7 2012). Under MG Rover if an engineer wished to purchase some components within a budget that had already been approved, he would need to obtain 4 signatures before the order was placed with a supplier. But under Chinese management the same process requires "14 or 15 signatures" (Interviewee A3 2012).

Another significant difference between Chinese and British organisations is the extent of state involvement. Being a state-owned enterprise the Chinese state plays an active role in the administration of SAIC. "The leadership that we've got in China are in general very senior people in the local party" (Interviewee A5 2012). The state provides strategic direction (Interviewee A2 2012) to the company through Party officials who have desks and offices within SAIC. They participate in senior meetings and support the company's business development activities (Interviewee A3 2012). For instance Party officials were involved in the graduate recruitment process to ensure that the right numbers of graduates were taken on.

"They are part and parcel of developing the business and are not far from senior meetings" (Interviewee A5 2012).

Although British employees are not used to working for a company that is run both as a business and a political entity their view of Chinese state influence on SAIC is positive. They appreciate the visits made by several high ranking Chinese officials over the years. The Prime Minister, Wen Jiaobao visited in 2010 and the mayors of both Nanjing and Shanghai made visits to SAIC's UK engineering centre in 2011 (Interviewee A5 2012). The company's strong ties to the government mean that some of its decisions are taken for "the good of the country rather than the business" (Interviewee A4 2012). This is somewhat different to the way British organisations are run whereby most decisions are based on the company's best interests. British employees are used to working in environments in which the state has little or no direct involvement. From their point of view some of the decisions made by headquarters may be not make commercial sense because other wider interests they are not aware of may have been taken into account during the decision-making process.

The final organisational challenge is one posed by the UK government. Under current immigration regulations Chinese nationals require visas to visit the UK for business purposes. However the application procedures are lengthy and applications are sometimes not approved which makes it difficult for engineers and other staff to visit the UK engineering centre. Initially it was planned that teams of Chinese engineers would "come over here and spend six months working on a project and then taking the project back to China" (Interviewee A7 2012). However this is not possible as Chinese engineers are finding it difficult to obtain short-term business visas. The visa problem has proved to be a challenge for technological learning where Chinese engineers are unable to visit the UK as often as they would need to. Instead most of the technology transfer takes place when British engineers visit China. Although many of their visits are frequent and regular, knowledge sharing between the UK and China would have been far more efficient if travel in both directions was permissible.

4.6. Investment effects

So far this chapter has focused on SAIC's investment motives, their investment modes and the challenges they encountered. However this section examines the effects of their investment activities. These effects are addressed in the following three sections and are different for each of the examined firms.

4.6.1. Local employment

SAIC's entry into the UK market had an immediate impact on local employment. When MG Rover closed there were approximately 600-700 product development engineers out of employment (Interviewee A2 2012). SAIC's decision to invest in a new engineering centre directly lead to the initial employment of 70 vehicle development engineers. As the business grew the number of employees expanded to approximately 300. Today more than one third of these employees have permanent rather than temporary contracts (Interviewee A4 2012). The company has chosen to make more permanent arrangements by setting up a human resources department and financing the company pension scheme.

4.6.2. Financial investment

SMTC UK is part of a very large, profitable umbrella organisation with vast amounts of capital and global ambitions. Compared to MG Rover's financial position in the early 2000s, the engineering centre is a great deal more stable. The company's investment activities had financial implications for the local economy. In the early stages the financial implications were confined to the automotive consultancy, Ricardo, which was responsible for setting up and managing the engineering centre for the first two years. The entire project was funded by SAIC including monthly wages for local employees.

Once SAIC took ownership of the engineering centre and it was moved to the Longbridge site further investment followed (Interviewee A5 2012). Some of the buildings were disused and required considerable investment to get them back to a standard where they could be used again. SAIC invested in the main office building which currently houses most of the company's employees.

Further onsite investments included a new fully equipped design studio which is currently undergoing expansion. The size of the studio will be doubled and the investment will include a new state-of-the-art visualisation suite, increased modelling facilities and a CNC (Computer Numerical Control) five axis milling machine (SAIC Motor UK Technical Centre 2012). The studio's capacity will be significantly increased allowing the designers to work on up to five full-size models at a time. The value of the expansion is £1.5. Moreover significant investment went into the expansion and relocation of a workshop which was originally very small.

The financial implications of SAIC's investment go beyond the engineering centre based at Longbridge. The centre often employs the services of local automotive consultancies and universities on a commercial basis (Interviewee A1 2012). For example Milbrook and Mira provide crash testing services, Ricardo provides research and development expertise in the area of power train, while universities such as Coventry, Birmingham and Loughborough provide expertise in automotive research.

4.6.3. New markets, technologies and expertise

Through its ownership link with SAIC, the engineering centre has acquired access to China's fast growing domestic market. At the moment about 14 million passenger cars are sold in China every year and this figure is expected to increase in the future. Growing demand in the Chinese market represents a good opportunity for SAIC to expand its own brand by designing and developing new products.

SAIC's investment in the UK has given British engineers the chance to work with the biggest car company and the biggest car market in the world (Interviewee A5 2012). The unprecedented demand for passenger vehicles in China along with SAIC's financial backing has provided British engineers with an opportunity to develop new products for this market (Interviewee A3 2012). SAIC has a significant production plan which British engineers are already contributing to. One of the projects they have worked on is the platform for the MG 6. It was "an all new platform that we designed from the ground up" (Interviewee A4 2012). So far the

UK engineering team has "been involved in or started three new architectures" (Interviewee A4 2012) which is quite an achievement for the automotive industry in which few engineers have the opportunity to work on several cars from start to finish. SAIC's investment has provided the centre with an opportunity to invest in new technology, techniques, software and tools needed for the development of new products for Chinese market.

New product development requires not only application of existing technologies but also the development of new ones. Thus new product development by SMTC UK encourages its engineers to develop new skills and techniques. If other local organisations are involved in the product development process then they too have an opportunity to develop their own expertise. For example if SMTC UK employs a local consultancy to develop a combustion chamber for a new engine, they will apply existing expertise and at the same time learn new ones. "Every project is different, every project has its problems" (Interviewee A3 2012) and therefore offers new learning opportunities.

By working for SAIC, British engineers are able to learn more about new energy technologies from their Chinese colleagues. SAIC's significant investment into new energy technologies in China has led to the development of strong capabilities in this area. In particular they have developed expertise in new energy power train for electric and hybrid vehicles. So far British engineers have been "supporting the Chinese with more conventional engineering skills" (Interviewee A1 2012). It is likely that future involvement in new energy projects will enable British engineers to upgrade their skills in this promising field.

4.7. Concluding remarks

SAIC's decision to invest in the UK was driven by its need for strategic assets. Namely the company gained a strong brand, technology and know-how when it acquired the legacy of MG Rover. In doing so SAIC encountered a series of investment challenges relating to cultural, organisational and administrative issues. Its investment activities in the UK had implications for the local economy with regard to employment; financial investment; and access to a new market and expertise. The next chapter provides a detailed examination of the investment

behaviour of another Chinese multinational – Chongqing Machinery and Electric (CQME).

5. Chongqing Machinery and Electric Company (CQME)

5.1. CQME overview

Chongqing Machinery and Electric Company (CQME) is a Chinese state-owned enterprise established in 2007. It is under the direct administration and control of the Chongqing Municipal Government and its headquarters are in Chongqing, China. CQME is primarily engaged in manufacturing and sales of commercial vehicle parts and components, general machinery, machine tools and power equipment (Chongqing Machinery and Electric Co. 2012). Its operations are largely based in China. The company has been expanding continuously over the last five years which is illustrated by increasing profits. CQME's profit grew steadily between 2007 and 2011 but was followed by a significant decline in 2012.

Table 7 - CQME's annual profit from 2007 – 2012

Year	2007	2008	2009	2010	2011	2012
Profit RMB '000	473,823	523,881	624,556	698,760	745,195	455,673

Source: (Chongqing Machinery and Electric Co. 2012, 2013a)

CQME is the largest equipment manufacturer in Western China consisting of 47 subsidiaries in total (Chongqing Machinery and Electric Co. 2013d). Out of the total number of subsidiaries, 16 are wholly owned while the remaining subsidiaries are jointly owned (Chongqing Machinery and Electric Co. 2013b). The company's operations are organised into four core business areas: commercial vehicle parts and components; power equipment; general machinery; and CNC (Computer Numerical Control) machine tools (Chongqing Machinery and Electric Co. 2013d). CQME's annual sales of machinery and equipment exceed £650 million (Marketing Week 2012).

Figure 14 - CQME's core business areas

Source: (Chongqing Machinery and Electric Co. 2013d)

The company's aim is to become a driver of economic development in its home city of Chongqing. CQME aspires to be a globally competitive equipment manufacturer by following four pillars of its corporate philosophy: "speed- up, open-up, innovation and dedication"

Figure 15 - CQME's corporate philosophy

Source: (Chongqing Machinery and Electric Co. 2013c)

R&D is high on CQME's agenda having completed 122 new product development projects in 2011. The company successfully registered over 20 patents and eight of its R&D projects were awarded by the Chinese Mechanical Industry and the Municipality of Chongqing. According to the company's 2011 annual report, the government supported technologically innovative projects valued over RMB 50 million which equates to approximately 6.5% of CQME's profit for that year (Chongqing Machinery and Electric Co. 2012)

CQME's leadership recognises that the company needs to improve its technology base in order to become globally competitive. The company has a national technological centre and 13 city technological centres. CQME also has its own R&D platforms such as national laboratories, academic and post-doctoral work groups, and a technological innovation centre in Europe. The company has received over 100 national, provincial and ministerial awards for scientific research. It has developed long-term collaborations with several leading Chinese universities such as Qinghua, Fudan, Xiamen, Chongqing and Sichuan (Chongqing Machinery and Electric Co. 2011).

Although the majority of CQME's development efforts are geared towards raising domestic innovation capability, they are not confined to China. The company is increasingly looking to overseas markets for investment opportunities. The Chairman of CQME, Mr Xie Huajun, believes that "mergers and acquisitions are an effective method of expansion" and that "going out is a very bold but rational move" (China Daily 2011c). CQME is considering two to three projects for each of its 4 manufacturing areas: commercial vehicle parts and components, power equipment, general machinery and machine tools. The purpose of the acquisitions is to secure access to new technology, new markets and to strengthen the company's brand image (China Daily 2011c) as part of its high growth strategy.

5.2. PTG overview

The establishment of Holroyd dates back to 1861 when John Holroyd set up a machine tool and textile machinery manufacturing business in Hulme, Manchester. He worked with Joseph Whitworth, a famous engineer known for his standardisation of 'British Standard Whitworth' screw threads. Joseph Whitworth's nephew, Joshua, became a director of Holroyd and helped establish the company as a leading manufacturer of many types of machine tools and textile equipment (PTG 2012). From the beginning of its 150 year history, the company's success was based upon its ability to innovate. Holroyd moved to Milnrow, Lancashire in 1896. One year later it invented the thread milling process and designed, built and patented the first machine of its kind (Precision Technology Group 2013b). In 1906 Holroyd started to make worm gears as well as screw thread milling and grinding machines. In 1920 Holroyd developed the first spuncast Super-Holfos and JH17

Bronze, with high strength and very low coefficient of friction (PTG 2012). The company set a new world record in worm gear efficiency in 1931 which remains unbeaten to this day. In 1956 the company invested in a large-scale rotor production facility and started sub-contract rotor manufacturing (PTG 2012).

More recently in 1995, Holroyd developed a new range of CNC (Computer Numerical Control) thread and gear grinding machines based on unique 'Probe Feedback' and tooth profile correction technology (Precision Technology Group 2013b). Between 1996 and 2004 the company developed advanced grinding machines for high-precision gear, pump and metering screw production. It also made further developments in advanced grinding for high-precision compressor rotors and twin/tri-screw pump systems between 1997 and 2007 (PTG 2012). In 2009 it manufactured and installed the world's largest rotor milling machine capable of milling rotors up to 824mm in diameter. Throughout its history Holroyd has been at the forefront of developing new methods in the design, manufacturing and measurement of complex helical components.

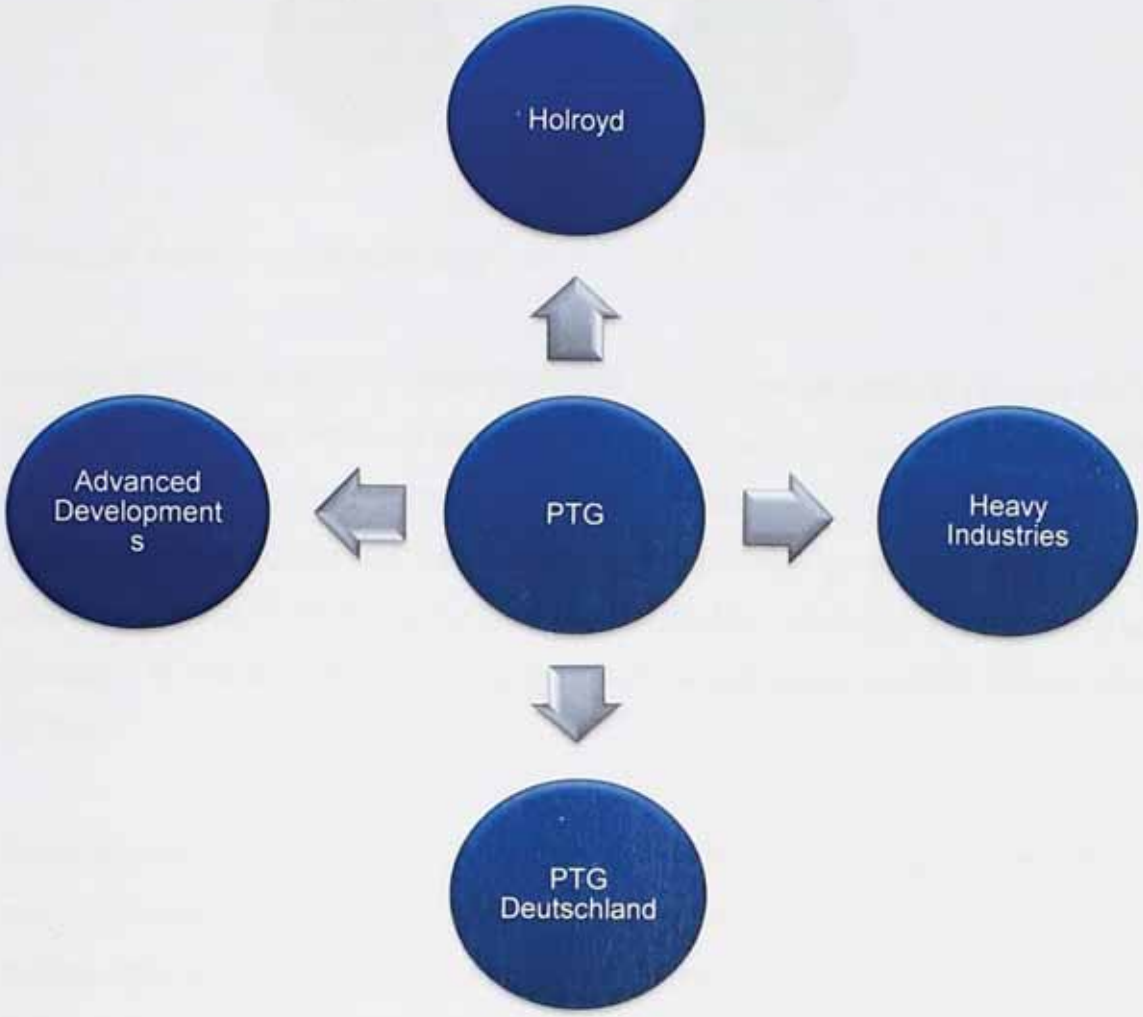
Figure 16 - Precision rotors manufactured by PTG

Source: (Precision Technology Group 2013a)

PTG's headquarters are located in Rochdale, UK and it had 240 employees in 2012. A very high proportion of the company's products are exported - over 97% (PTG 2012). PTG's core operations consist of four areas: Holroyd Machine Tools and Precision Components, Advanced Developments, Heavy Industries and PTG Deutschland. Holroyd, PTG's machine tools and precision components division is made up of two areas: Holroyd Precision which produces advanced manufacturing tools and manufacturing technologies for screw rotors and pump parts; and Precision Components which is responsible for the production of screw and rotor

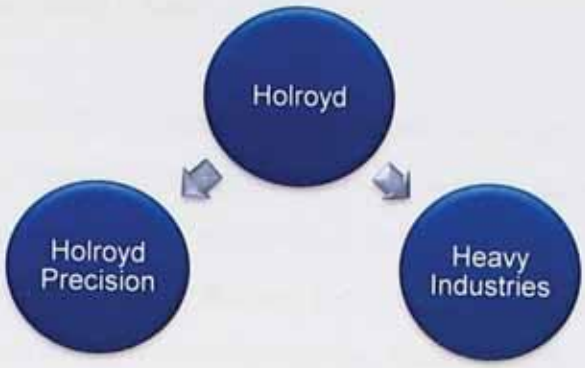
parts, systems design, development and tooling supply (PTG 2012). During its 150 year history Holroyd has sold more than 2000 gear, screw and rotor milling and grinding machines around the world (PTG 2012).

Figure 17 - PTG's core operations



Source: Author's interpretation

Figure 18 - Holroyd's business areas



Source: Author's interpretation

Despite its track record of innovation and healthy order book, PTG was not spared by the recession in 2008. At the time, it was one of the biggest manufacturers of grinding machines, rotor milling machines and lathes in the UK. The company had 170 employees across two sites in Rochdale and Halifax and its annual sales amounted to £20 million (Hibbert 2010). When the recession struck, there was a decrease in orders but the company remained active because of orders taken prior to 2008.

According to Tony Bannan, PTG's CEO, the company's "biggest problem was cash" (Hibbert 2010). PTG's main bank account with an Icelandic bank was suspended because of the financial crisis. Consequently the company was unable to accept orders as clients could not make payments to the company bank account. In effect this meant that PTG had to cease trading until financial stability was restored. Cash flow problems continued into 2009. Orders declined further and the company was compelled to take cost-cutting measures in the form of job cuts. Meanwhile discussions with CQME about a potential takeover were ongoing.

5.3. CQME's entry into the UK

The discussions ended in June 2010 with the announcement of CQME's acquisition of PTG. The takeover was valued at approximately £20 million (China Business News 2010) and was CQME's first international acquisition. CQME acquired the Precision Technologies Group which consisted of Holroyd Precision,

Precision Components, PTG Heavy Industries (Binns & Berry, and Crawford Swift brands), PTG Advanced Developments, Milnrow Investments and PTG Deutschland (Marketing Week 2012).

Holroyd Precision manufactures CNC machine tools and full manufacturing systems. It is also involved in areas such as design, consultancy, project management, manufacturing, rebuilding, sales, marketing and distribution. Precision Components manufactures technically complex parts such as helical screw rotor components, metering pumps, super-charger rotors (automotive/marine), precision gears, gas/air compression screws and refrigeration components (Allcock 2010). PTG Heavy Industries is the umbrella company for the Binns & Berry and Crawford Swift brands. Its primary activities include design, consultancy, project management, manufacturing, rebuilding, sales, marketing and distribution. The Binns & Berry brand is focused on the design and manufacturing of large capacity CNC lathes and deep hole boring machines, while the Crawford Swift brand develops and manufactures high quality CNC machining systems for large cylindrical shafts and rolls.

PTG Advanced Developments delivers R&D and product innovation services for all business within the group. It undertakes both basic and applied research to ensure the continuous development of the company's products and services. It is expected that the company will extend its R&D services to parts of the CQME Group (Allcock 2010). Milnrow Investments manage the property, land and buildings of Holroyd Precision and Precision Components while PTG Deutschland GmbH mainly supports the company's sales and marketing activities in European markets.

5.4. Investment motives

Like SAIC, CQME invested in the UK mainly to acquire strategic assets. CQME required access to a different mix of assets to SAIC. It was particularly interested in gaining access to technology, know-how and management expertise which are explained in the following three sections.

5.4.1. Technology and know-how

Despite considerable domestic efforts to raise its technological capacity, CQME's engineering capability does not match the west. By British standards their "technology is dated and relatively low level." It is "not very well designed or constructed" (Interviewee B1 2012). CQME needs to upgrade its technology significantly in order to achieve its goal of becoming a globally competitive equipment manufacturer.

The acquisition of PTG is seen by CQME as an opportunity to add value and complementary products by utilizing the advanced technologies of Holroyd Precision to enter new markets in the global precision gear manufacturing sector (Marketing Week 2012).The company is investing abroad to enhance its R&D capabilities and product development, particularly in the UK where "innovation is clearly a strength" according to CQME's Director and Vice President, Liao Shaohua (The British Business Awards 2013).

In an official statement by CQME it was highlighted that the acquisition of PTG was a strategic move intended to "improve the technical know-how of Chongqing, reinforce the capability of technical development of relevant enterprises of the company, expand its business scale and enhance its profile" (Allcock 2010). It is planned that PTG's two production sites in Northern England will retain some machine tool manufacturing responsibilities while most high volume production will be located in Chongqing, China. CQME intends to turn PTG's existing site in Rochdale into a high-tech research and development centre for several machine tool disciplines (Marsh 2012).

CQME is already making use of PTG's technological expertise through the development of two new products. The Holroyd Zenith 400 helical profile grinder is the first grinder to use all three grinding wheel technologies – aluminium oxide, plated CBN (cubic boron nitride) and vitrified (dressable) CBN. The machine has the ability to grind some of the largest rotors. Other significant applications include refrigeration and air-conditioning components, air-compressor components, vacuum screws for semiconductor manufacturing and other complex helical shapes (Albert 2011).

Figure 19 - Holroyd Zenith 400 helical grinder

Source: (Albert 2011)

PTG also designed and developed the GTG2 helical gear grinder which produces ultra-high precision helical gears in diameters up to 350mm (PTG Holroyd 2011). The GTG2 has the capability to produce accurate master gears, precision prototyping and timing gears for aerospace applications as well as gearboxes, oil pumps, and other high performance helical gears for automotive applications. The machine also has applications in F1, industrial optics and custom designed industrial products (Modern Machine Shop 2009).

Figure 20 - GTG2 Helical Gear Grinder

Source: (Modern Machine Shop 2009)

Besides taking advantage of PTG's internal R&D capacity, CQME also has access to technological capabilities found within other UK organisations. It relies on market knowledge and personal networks within PTG to find specialist consultants for particular projects. CQME's UK base also provides access to local universities. For instance Advanced Developments, PTG's research and development division, operates a compressor and profile design consultancy in partnership with City University London (PTG 2012).

In 2012 CQME launched a collaborative development project between PTG, Chinese sister company - Chongqing Machine Tool Industry (CHMTI) and external UK consultants. They are developing a gear grinding machine for the Chinese market which produces commercial quality gears for passenger cars, vans and trucks. The machine grinds gears that go into the gearbox. Once the customer has bought the machine, it is installed in their own plant to make gears which are then fitted into cars. PTG engineers are developing the software while the mechanical part i.e. the machine building is being undertaken by Chinese engineers from CHMTI.

CQME is also interested in obtaining market-ready designs for products "which they can manufacture and sell in the Chinese market, without having to go through the lengthy process of R&D themselves" (Interviewee B1 2012). For instance CQME owns a multitude of large engineering companies which manufacture large machines. They have a series of projects lined up such as a hydroelectric generator of 200 megawatts for which they do not have the technology.

Initially, PTG management believed that the new technology would be developed in collaboration with UK universities in the form of R&D projects but this was not so. Instead CQME is interested in acquiring finished designs which are ready for manufacturing. At this stage it is not certain how this will be achieved but in future CQME might purchase designs from other companies and/or acquire entire companies with particular technological strengths.

Taking into consideration its technological status and global aspirations, CQME's acquisition of PTG was a logical move. It gains access to the technological capability and local knowledge found within PTG. CQME's new UK base also provides an opportunity to access expertise found within other organisations. The gear project is a good illustration of this as it involves external consultants who were recruited locally for their expertise. The company's UK presence also opens doors for collaborations with UK universities such as Huddersfield, John Moores and Cranfield with which PTG already has a good links.

5.4.2. Management expertise

Aside from technological know-how, CQME's acquisition of PTG is driven by a need for management expertise. Mr Liao Shaohua, Director and Vice President of CQME, recognises the extensive experience of UK managers in areas such as international business and product strategy implementation, both of which represent valuable assets to CQME (The British Business Awards 2013). From a Chinese point of view, there are significant learning opportunities from PTG. One of the CHMTI employees, currently on secondment to PTG, observed that some western management practices are being exported to China. For example until recently CHMTI did not hold monthly board meetings until they visited PTG. Chinese managers from CHMTI learned that PTG's executive board meets monthly to discuss strategic issues. Upon their return to China they too introduced regular monthly executive board meetings (Interviewee B2 2012).

5.4.3. Global expansion

Although China is currently the world's biggest market for advanced machine tools and CQME has been very successful in this market in the last six years, it has plans to expand globally. The acquisition of PTG is a logical step in this direction because it provides CQME with the strategic assets it needs – technological know-how and international management expertise. CQME will then leverage these assets to enhance its competitiveness and penetrate new markets. CQME has ambitious plans for PTG worldwide. It intends to increase PTG's annual sales from £15 million in 2012 to approximately £100 million in 2014 by doubling numbers of UK staff (Marsh 2012). Mr Cui Jian, director of the Chongqing Assets Supervision and Administration Commission which controls Chongqing Machinery, believes that the acquisition is part of an effort to "learn from the western approach to business" as well as to expand globally. He highlighted that the company is "seeking more opportunities to invest in Europe" (Marsh 2012).

5.5. Investment challenges

Like SAIC, CQME faced a number of challenges when investing in the UK. CQME's pursuit of strategic assets is not easily achieved because it requires frequent and regular collaboration between British employees from PTG and their

Chinese counterparts from CQME. The challenges encountered can be categorised into two groups: cultural and organisational.

5.5.1. Cultural

The concept of face is one of the first aspects of Chinese culture which caused difficulties during a collaborative project between Chinese and British engineers. A team of UK engineers was tasked with visiting China to install new software on a newly developed Chinese machine (Interviewee B1 2012). Before setting off to China, the engineers tried to contact their Chinese colleagues to confirm whether the machine was ready or not. Since they did not receive a response, the British engineers assumed a positive response and set off to China.

On arrival there was no confirmation that the machine was ready and after spending three days in China they learned that it was not ready after all. British engineers then spent six days in China before they could begin work on the machine. From a British point of view, the engineers thought this to be "a waste of time and resources and could not understand why the delay had not been communicated prior to their departure from the UK" (Interviewee B1 2012). The Chinese lack of communication served only to exacerbate the situation.

Although it appears confusing from a Western point of view, the behaviour of Chinese engineers makes more sense if it is examined from a Chinese perspective. The notion of saving face is a priority in Chinese culture which is exactly what the Chinese engineers did in this instance. Admitting directly that the machine was not ready would have caused them to lose face in front of their British colleagues. Instead they chose not to respond in order to preserve face.

This was a lesson in Chinese culture for PTG – "if the answer to a question is unfavourable they will avoid answering it" (Interviewee B1 2012). If a question is asked via email and the Chinese do not reply this should be interpreted as a "no". Instead of sending a negative reply they prefer not to send one at all. This lack of communication caused a misunderstanding as British engineers assumed that no reply meant that there was no problem. The expectation from a British point of view is that "the Chinese should be more truthful and open in their interactions,

especially with UK colleagues who might otherwise misunderstand a situation" (Interviewee B1 2012).

The language barrier is another cultural aspect which has been an impediment to collaboration between Chinese and British employees. For example when engineers and commercial personnel from China visit PTG the level of engagement with projects is quite low because the employees do not share a common language. Although employees from both sides are working to improve their language skills, achieving fluency in a foreign language is a lengthy process. In order to meet everyday business needs CQME has devised a system whereby Chinese employees with advanced English language capabilities are temporarily sent to PTG to assist with communication.

At the time when interviews with PTG were conducted there were two employees from China who were temporarily based in the UK. One of the employees is an engineering manager from CHMTI who is a qualified mechanical engineer and a machine design specialist. He is temporarily based at PTG in the UK and goes back to China every few months. His role is that of a technical liaison between PTG and CHMTI which means that he facilitates communication between the two parties on technical matters (Interviewee B4 2012).

This role is seen to be vastly important because of language and cultural differences that need to be ironed out on a daily basis. The technical liaison role is supported by another employee from CHMTI in China who is also temporarily based in the UK. She usually works in the export/import department at CHMTI and also assists with communication with PTG because of her excellent English language skills (Interviewee B2 2012).

PTG has also taken measures to alleviate the language barrier between Chinese and British colleagues. They have recruited a bilingual individual on a permanent basis who deals with translation and interpretation from Chinese to English and vice versa (Interviewee B4 2012). This role is considered vital to the everyday running of the business.

Most communication is direct and takes place via telephone, conference calls, emails and in person visits. Employees from CQME and CHMTI visit PTG on a regular basis to sign documents, discuss targets or make strategic decisions. The visits are two-way so PTG managers often visit the parent and sister companies in China. "Telephones don't work very well, particularly for technical matters. This is because of the language barrier" (Interviewee B1 2012). Instead email is the preferred communication channel so that any misunderstandings can be clarified with the assistance of the technical liaison and other bilingual staff if necessary. "Technical language such as formulas and figures" are also found to be an effective way of alleviating the language barrier when sharing technical information between the two sides (Interviewee B4 2012).

The challenges posed by the language barrier are easing over time. Language skills are improving and the employees are getting to know each other. "They are forming strong personal bonds and there is good rapport" (Interviewee B1 2012). When individuals need help they know who to contact whereas in the past they were not sure. Together these factors should contribute towards reducing the language barrier which will enable more effective communication and knowledge sharing between Chinese and British employees.

Although both Chinese and British employees generally feel that there are no major inter-cultural differences which would prevent them from working together, there are significant differences in customs which illustrate just how distinctive the two cultures are. A good example of this is the symbolism of colours and how their use differs in the two cultural contexts. When British and Chinese employees were jointly arranging an opening ceremony, "the British wanted to use black and white colours which are only used in China for funerals and other ominous occasions" (Interviewee B2 2012). In contrast, the Chinese wished to use red because it symbolises good luck in Chinese culture.

5.5.2. Organisational

Although CQME has minimised the introduction of changes to PTG Chinese influences are becoming more noticeable. "Targets are now set centrally without hesitation or discussion of how these targets can be met" (Interviewee B1 2012).

For example the parent company, CQME, has instructed PTG to increase its sales by 10% without considering PTG's current production capacity. Meanwhile PTG's management believes that they do not have the production capacity required to achieve the sales targets set by CQME. Thus PTG's management feels that the parent company's "demands are sometimes unrealistic" (Interviewee B1 2012). PTG's management team is accustomed to participating in target setting and having more influence on the process than they currently do under Chinese ownership.

British managers are adjusting to a management system in which they have less control because key decisions are now centralised. Meetings with Chinese colleagues from CQME are significantly different to those held in a western management context. From a western perspective the only people attending a meeting will be those who are expected to contribute whereas, in a Chinese business environment, the meetings are also attended by "silent observers who do not participate" (Interviewee B1 2012).

The question of hierarchy in Chinese business culture also sometimes makes it difficult for British employees to navigate the system and work effectively with their Chinese colleagues. From a western point of view it is acceptable for an employee to talk directly to his or her CEO about a strategic idea they have. The pathway to getting a strategic idea across to the right person in a Chinese organisation would be very different. Traditional Chinese companies, especially state-owned enterprises are "very hierarchical, employees' ideas and contributions are not always heeded" (Interviewee B1 2012).

Chinese employees respect their superiors and would never indicate that he or she is wrong. This would be inappropriate and unacceptable in a Chinese business context. It is therefore vital for British employees to gain an understanding of CQME's hierarchical structure. Once they have developed their understanding of how the system works they will know what approach to take and whom to contact when they have ideas they wish to get across.

The role of the Chinese state is inevitable in state-owned enterprises such as CQME. Government representation in these organisations is commonplace and is not something to which PTG employees are accustomed. There is a feeling amongst PTG employees that some of CQME's "targets may be politically driven by powers higher than their immediate bosses in China" (Interviewee B1 2012). In the past, prior to CQME's takeover, PTG's decisions were driven by commercial objectives and did not have any political considerations. The role of the state in Chinese SOEs is something that Chinese employees accept and British employees ought to familiarise themselves with. It is therefore likely that some decisions taken by CQME executives may have underlying political motives.

5.6. Investment effects

Despite the change to Chinese ownership in 2010 "PTG still feels like a British company" (Interviewee B1 2012). It is an old-fashioned machine tool manufacturer with a long-standing tradition. It is not very Chinese except for some specific projects which are being carried out jointly. This perception is echoed by the company's CEO who views PTG as "a British company, providing British jobs and manufacturing high quality British tools" (Bannan 2012)

Figure 21 - Machine tool development at PTG

Source: (PTG Holroyd 2013), © Gareth Walker 2012

Its new Chinese owners, CQME, have a taken a soft approach towards the acquisition, allowing PTG to pursue its own business activities with little interference (Interviewee B1 2012). PTG is retaining its presence in established markets and things are being kept the way they were. PTG is well known in the market and its new owners would like it to be seen as the same company. It has a

good reputation and therefore not many changes are being introduced in order to preserve the company's image.

Some of PTG's customers from the US were "uneasy when they learned of the Chinese takeover" (Interviewee B1 2012). In order to retain these customers the managers of PTG made assurances that any confidential information obtained by PTG would not be passed on to the parent company in China. Based on this guarantee PTG managed to preserve its US customer base. It is clear that PTG remains relatively independent of its parent company which is of high importance to some of its customers.

Figure 22 - PTG's UK manufacturing facility

Source: (PTG Holroyd 2013), © Gareth Walker 2012

Based on CQME's post-acquisition behaviour it is evident that the company's acquisition strategy is one of minimal interference. This stands to reason because the takeover was partly motivated by PTG's good reputation and image of traditional British machine tool manufacturer. PTG's success was built on this very image and represents a good foundation for the Chinese company to build on. CQME's plans of global expansion stand a better chance with the support of PTG's market image than they would under CQME's own brand which is not well known outside China.

The effects of CQME's investments are explained in the next three sections. Although they are similar to those displayed by SAIC there are some significant differences.

5.6.1. Financial investment

Although not many changes have been made to PTG's daily operations, the effects of CQME's ownership are profound in a number of different ways. The first and most immediate effect was financial. PTG's financial problems came to an end with the takeover (Bannan 2012). CQME's financial leverage improved "PTG's operational performance and company finances" (Interviewee B3 2012). Prior to the acquisition PTG had cash-flow problems and a large debt. CQME provided financial assistance by expanding PTG's credit limit based on the parent company's links with Chinese banks.

The new owners are in a strong position to make substantial investments and the decision to support PTG's move to a new site reinforces their commitment. The move is expected to improve PTG's facilities, product capacity and market image (Interviewee B1 2012). In addition Holroyd Precision announced that it was successful in securing £2.7 million from the government's Regional Growth Fund. The funding will be used to support the development of a new manufacturing facility and a new European R&D and Innovation Centre which will create 137 new jobs (Precision Technology Group 2012). In the words of CQME's Director and Vice President, CQME is "investing in manufacturing capacity, staff, facilities and R&D for the long term success of our UK business" (The British Business Awards 2013).

5.6.2. Employment

The acquisition has also had an impact on employment within PTG. CQME's decision to acquire PTG secured 220 British jobs (Bannan 2012). Chinese ownership has also brought PTG stability and a long-term outlook. Prior to the acquisition PTG was owned by "venture capitalists who were interested in short-term gains" (Interviewee B3 2012). In contrast, the new Chinese owners belong to the same industry and have long-term plans for the company. The machine tool development cycle lasts two to three years which means that companies in this industry need to have long-term strategies (Interviewee B1 2012). The new Chinese owners have a longer term view compared to most British companies (Bannan 2012) which has a positive effect on PTG's stability and long-term plans.

5.6.3. New markets, skills and knowledge

It is significant for the local economy that all existing manufacturing facilities, services and supply chains will continue to be maintained and developed by the new owners (Marketing Week 2012). CQME's strong drive towards expansion and sales is already having an impact on the growth of the PTG business. CQME's commitment to the development of PTG is illustrated by the words of its Chairman, Mr Xie Huajun. CQME is planning to expand the business by "using PTG as an international arm of the business, not just in Europe, but worldwide, to tap into new markets" (Allcock 2010). There is already some evidence of PTG's growth. Namely PTG Heavy Industries achieved machine sales valued over £10 million in 2012, which represents an increase of 30% compared to the previous year.

According Chris Cheetam, the company's sales manager, PTG Heavy Industries is entering new markets such as the US, China and Russia (Machinery Market 2013). The company received a large order from the US for a deep-hole boring machine valued at US$2.3 million and a roll-turning lathe valued at US$900.000. It also designed and built a Powerstir friction-stir-welding machine for a customer in China's aviation industry. The machine is believed to be the most powerful of its kind and has the capability to produce friction stir welds in aluminium alloys, titanium and stainless steel. The company is also currently building two machines for the Russian space industry.

Holroyd also has a significant customer base in China which it plans to expand (Interviewee B3 2012). Holroyd's link with CQME will certainly open up new opportunities in China. Given CQME's strong position in the domestic market, it will be well placed to identify new customers for Holroyd and support its development in the Chinese market which has been growing consistently over the last five years (PTG 2012).

The development of products for the Chinese market is contributing towards the development of new technical skills within PTG. For example in order to build a new gear grinding machine, PTG engineers had to learn a "new grinding technique they had not used before" (Interviewee B1 2012). In addition they developed expertise in Siemens software which they were previously unfamiliar with. As PTG

expands into China and other new markets there are likely to be further opportunities for the development of new products and technical skills.

Aside from technical skills CQME's ownership is also contributing towards increased knowledge of the Chinese market and Chinese culture amongst British employees (Interviewee B1 2012). They are becoming acquainted with Chinese management practices and the significance of hierarchy in Chinese organisations. British employees are learning what kind of behaviour is expected from them, and also how to navigate the organisational system in a Chinese business context. Some British employees are also making an effort to learn the Chinese language. An enriched understanding of the Chinese market and culture is particularly relevant for British employees because of CQME's plans to expand into China and the prospect of collaborative product development with Chinese colleagues.

CQME's presence in the UK is not only having significant effects on PTG but it is also influencing other businesses in the UK. An illustration of this is the involvement of specialist external consultants who were recruited especially for the development of a gear grinder for the Chinese market. Work on this project provided the consultants with an opportunity to learn a new grinding technique they had not used before. As a result of their interaction with Chinese engineers from CQME, the British consultants are becoming more competent and comfortable in working for Chinese clients. They are learning about Chinese business practices and gaining a better understanding of Chinese culture in general.

The consultants are also developing their personal networks in China through their work for CQME. This may be particularly valuable in terms of opening up new consulting opportunities in China. The experience of working for a Chinese company and gaining a more comprehensive understanding of Chinese culture may well increase the consultants' chances of success in the fast-growing Chinese market. As PTG's plans of expansion go ahead, there are likely to be further opportunities for collaboration with other UK organisations which will also be impacted.

5.7. Concluding remarks

CQME's decision to invest in the UK was driven by its need for strategic assets. The company's aim was to improve its technological know-how by acquiring PTG, a British manufacturing company with strong R&D capabilities. CQME intends to make use of existing technology but also to develop new technology using PTG's know-how. In addition the Chinese investor is interested in accessing PTG's expertise in international business and product strategy.

The challenges encountered by CQME in its acquisition of PTG relate to cultural factors such as the importance of saving face to Chinese people and the language barrier. Further challenges are driven by different managerial styles and perceptions of hierarchy. Moreover the role of the Chinese state can be an issue for British employees who are not used to direct state intervention in the business environment.

Although CQME took a light touch approach to the acquisition, the investment brought significant improvements to PTG. Its financial position was strengthened through a combination of debt reduction and investment in facilities, production capacity and R&D. The acquisition ensured job preservation and opened up new market opportunities for PTG in China and elsewhere. These opportunities led to the acquisition of new knowledge about the Chinese market and culture which will prove useful given PTG's business links with China. Overall it appears that PTG has benefited from becoming part of a large Chinese manufacturing group. The next chapter investigates the case of Zhuzhou CSR Times and its acquisition of Dynex in the UK.

6. Zhuzhou CSR Times Electric Company Limited (CSR Times)

6.1. CSR Times overview

Zhuzhou CSR Times Electric Company is a subsidiary of CSR (China South Locomotive and Rolling Stock Corporation Limited), a Chinese state-owned enterprise. The parent company CSR was founded in 2007 and its headquarters are located in Beijing. CSR went public in Shanghai and Hong Kong in August 2008. The company has approximately 90,000 employees and consists of 17 subsidiaries across 10 provinces and cities. CSR's core business areas include development, manufacturing and servicing of railway locomotives, passenger trains, freight wagons, bullet trains, metro vehicles and associated parts (CSR Corporation Limited 2011).

The company also develops and markets a range of other products such as electric vehicles, wind generation equipment, automotive parts, diesel engines, semiconductor devices and construction machinery. As an innovative company, CSR has four R&D centres, six national technical centres, seven test centres and six doctoral workstations in China. It also has two overseas R&D centres in the US and the UK (CSR Corporation Limited 2011).

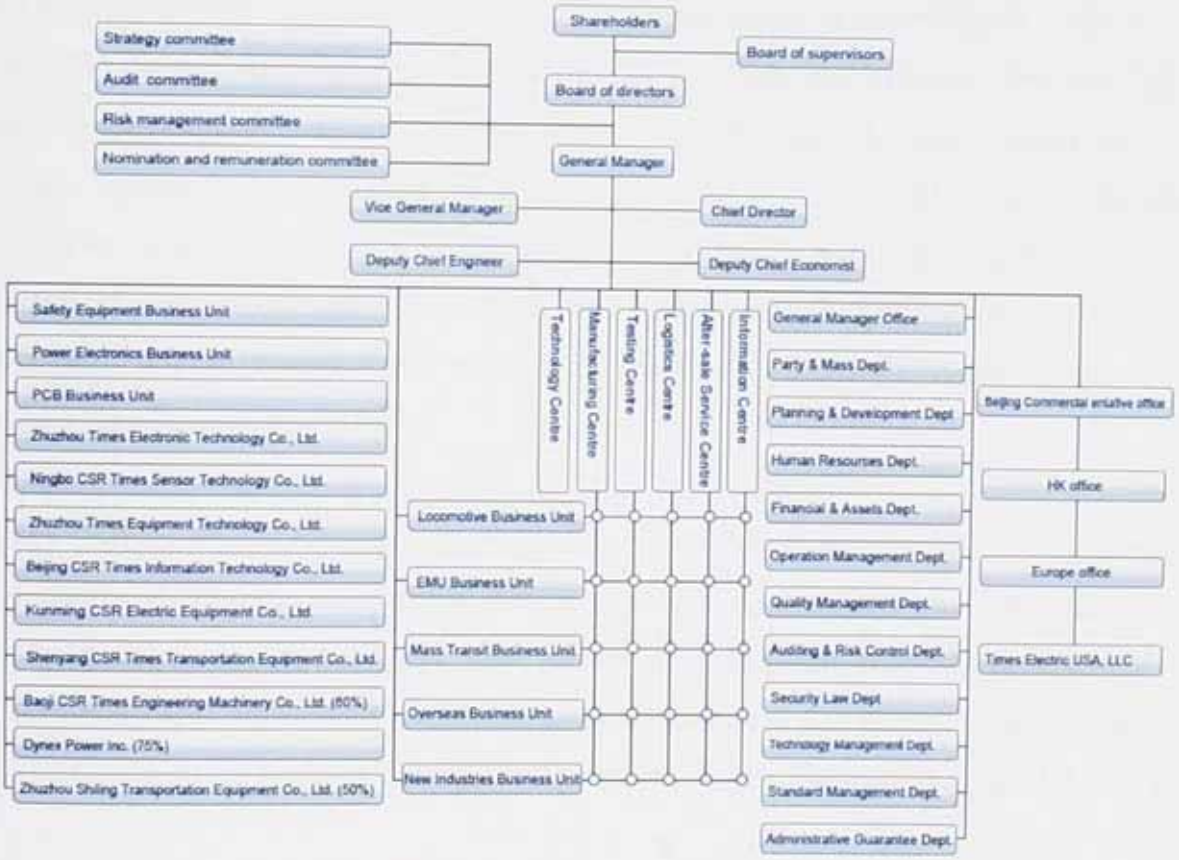
Its subsidiary Zhuzhou CSR Times develops, designs, manufactures and markets mass transit electric drive converters and control systems. The company was founded in 2005 and its headquarters are located in Zhuzhou, Hunan province. CSR Times was listed on the Hong Kong stock exchange in 2006. The company has enormous production capacity consisting of the following six production bases: railway transportation equipment, electric connectors, power electronics, railroad vehicles, overseas production and Ningbo production base (CSR Corporation Limited 2011).

Figure 23 - CSR Times power electronics production base

Source: (Zhuzhou CSR Times Electric Company 2012b)

The organisational structure of CSR Times is made up of 12 business units most of which are wholly owned. The rest are jointly owned with ownership share varying between 50% and 75%. The company's business units are illustrated by the organisational chart below:

Figure 23 - Zhuzhou CSR Times organisational chart



Source: (Zhuzhou CSR Times Electric Company 2013)

CSR Times has been expanding rapidly over the last five years which is illustrated by a considerable profit increase between 2007 and 2011.

Table 8 - CSR Times net profit from 2007 – 2011

Year	2007	2008	2009	2010	2011
Net profit '000 RMB	341,982	423,337	529,594	852,062	1,187,036

Source: (Zhuzhou CSR Times Electric Company 2012a)

The company's net profit grew by 28% between 2010 and 2011 mainly because of an increase in revenue. Most of CSR Times' revenue is generated through sales of electric multiple units, locomotives and power semiconductor components (Zhuzhou CSR Times Electric Company 2012a).

6.2. Dynex Semiconductor overview

The original business was founded 1956 in Lincoln and has previously traded under the names AEI Semiconductors Ltd (AEI), Marconi Electronic Devices Ltd (MEDL) and GEC-Plessey Semiconductors Ltd (GPS) (Dynex Semiconductor 2013b). Dynex Semiconductor Ltd was established in January 2000 and is located in Lincoln (Dynex Semiconductor 2013d). The company's Lincoln site houses fully integrated silicon fabrication, assembly and test, sales, design and development operations (Dynex Semiconductor 2013c). Dynex has 322 employees at present (Dynex Semiconductor 2013d).

Dynex Semiconductor designs and manufactures power semiconductor devices and silicon on sapphire integrated circuit products. Its products include high power bipolar discrete semiconductors; high power insulated-gate bipolar transistor (IGBT) modules; high power electronic assemblies and components; and high reliability silicon on sapphire integrated circuits (Dynex Semiconductor 2013b).

Figure 24 - Dynex's products

Source: (Dynex Semiconductor 2013c)

Dynex's business can be categorised into three main product groups: power semiconductors, power electronic assemblies and integrated circuits. Dynex's power semiconductor operations represented 85% of the company's revenue in 2012. As a core business area, the power semiconductor division consists of two major product groups – bipolar devices and power modules. It manufactures a range of high power modules and bipolar discrete products including: IGBT modules, bipolar thyristors and diodes in Lincoln (Dynex Semiconductor 2012a, 2013a).

The company's power electronic assemblies product group also constitutes a significant source of revenue. According to Dynex's annual report, this product group generated 10% of the company's revenue for 2012 (Dynex Semiconductor 2013a). Demand for this product is driven by large infrastructure projects in the power transmission and distribution sector. Lastly, the integrated circuit product group is a minor source of revenue for Dynex. It accounted for 1% of the company's total revenue in 2012 (Dynex Semiconductor 2013a). However, Dynex has ceased manufacturing of new silicon on sapphire products. It is currently considering outsourcing production in order to meet demand from customers around the world.

Dynex's products are used in power electronic applications including electric power transmission and distribution, renewable and distributed energy, marine and rail traction motor drives, aerospace, electric vehicles, industrial automation, controls and power supplies (Dynex Semiconductor 2013c). Meanwhile integrated circuit products are used in the aerospace industry (Dynex Semiconductor 2013d).

6.3. CSR Times' entry into the UK

In the past CSR Times had used IGBT conductors made by leading European and Japanese manufacturers. But it had aspirations to compete with leading international companies such as Siemens from Germany and Alstom from France. Therefore CSR Times decided to develop its own technology for IGBT semiconductors which would reduce the company's reliance on foreign imports. In 2007 the company was looking for a partner to develop IGBT technology and found Dynex to be a good fit (Liu 2013). At the time many Chinese companies believed that the UK had some interesting privately owned engineering businesses that were undervalued (March 2011). In October 2008 the Chinese company, Zhuzhou CSR Times, acquired a majority 75% stake in Dynex Power Inc.

6.4. Investment motives

Similar to SAIC and CQME, CSR Times invested in the UK to acquire strategic assets. However it required a different mix of assets to the previous two firms. CSR Times was especially interested in technology and know-how and business expertise which is described in the following two sections.

6.4.1. Technology and know-how

Once the acquisition was finalised the Executive Director and President of CSR Times Electric, Mr Lu Penghu announced the company's intentions "... we expect Dynex to develop high power products with advanced high power technology, R&D capability, and proven reliability and quality..." (Dynex Semiconductor 2008). As suggested by the words of Mr Lu, one of the key motivations behind CSR Times' acquisition of Dynex was access to technology. CSR Times invested in Dynex with the intention of using some of its technology in the manufacture of high speed motors for high-speed trains in China (March 2011).

CSR Times intends to develop Dynex into a world-class R&D centre dedicated to power semiconductors. "The aim is for the UK R&D centre to be focused on high end R&D activities while the company's activities in China are specialised in production" (Interviewee C1 2012). At present the centre carries out joint R&D activities for the UK subsidiary and for the parent company. The activities relate to

"the next generation of IGBT chips and modules, electric vehicles, new energy vehicles, wind and solar energy, high speed trains, silicon carbide materials (a new kind of semiconductor material), and bipolar transistor systems etc" (Interviewee C1 2012, Interviewee D1 2011). The centre is developing new power semiconductor technologies such as new IGBT modules which have applications in the above listed fields such as new energy vehicles for example.

In the power semiconductor sector Europe has more advanced technology compared to China. The UK has strengths in high end R&D and this is well supported by the government. The acquisition enabled CSR Times to build a new base and to share Dynex's advanced technology. "The R&D centre in the UK is a window from CSR Times because it often sends people here for training" (Interviewee C1 2012). Access to advanced technology is intended to improve the quality of CSR Times' products in China.

CSR Times' ownership of Dynex means that advanced technology can be transferred from the UK to China. Experts from Dynex helped to establish a manufacturing line for IGBT semiconductors in Zhuzhou by installing production equipment and designing the assembly process (Liu 2013). Regular visits are made to Zhuzhou to ensure that the production line is similar to the one in Lincoln.

While developing the technology needed for the construction of the 8-inch IGBT production line China, the UK R&D centre achieved some significant breakthroughs in terms of technology and process research for 1200V and 1700V IGBTs and fast recovery diodes. One of the key objectives of the project was transfer of advanced manufacturing technology know-how from the UK R&D centre to CSR Times Electric consisting largely of engineering training (Dynex Semiconductor 2013a). The existing manufacturing facility in Lincoln specialises in high voltage semiconductors while the new plant in Zhuzhou will focus on low voltage semiconductors and will have a significantly higher production capacity.

Figure 25 - New six-inch silicon fabrication facility in Zhuzhou

Source: (Dynex Semiconductor 2013c)

The acquisition of Dynex gives CSR Times access to the company's internal R&D capabilities but also to those found in UK universities. Dynex's R&D teams are working closely with local universities such as Nottingham, Loughborough, Warwick and others on advanced R&D and knowledge transfer projects. Dynex is currently building relationships with the new Engineering School at the University of Lincoln having already enjoyed strong educational links with Lincoln College over the years (Dynex Semiconductor 2012c).

The University of Nottingham has expertise in power electronics systems and has had a 10 year working relationship with Dynex. When Dynex needed some extra technical expertise a Knowledge Transfer Partnership (KTP) was established between the two organisations. A university student was selected by the University to work on a project with Dynex. The student made a valuable contribution to Dynex's technology by introducing new thinking into the organisation. Consequently Dynex now has a complete motor drive system that uses the company's electronics along with controls and software developed by the student (University of Nottingham 2012).

Dynex participated in a three year research collaboration with Durham University, the University of Warwick and nuclear energy conglomerate Areva. The project looked into the degradation of power electronic convertors with the aim of finding a way to predict failures. Dynex joined the project because it was addressing the problem in a novel way. The company was also involved in several EU and DTI supported R&D collaborative programmes relating to aircraft power electronic

systems, electric grid interconnectivity and power module reliability (The Engineer 2007).

The acquisition of Dynex has also given CSR Times access to R&D capabilities found in local industrial organisations. Dynex is working with local firms to develop high power semiconductor devices, some of which are supported by the UK government. For example Dynex was awarded a development grant of £530,000 in 2006 to support two collaborative projects over a three year period (Wilson 2007). The aim of one of the projects named Newton was to develop ultra-high power thyristor switches. This project was a collaboration between Dynex, Loughborough University and two high technology companies – Areva T&D, and Semefab. The aim of the second project named Hidrive was to build high power transistor modules. This project was a collaboration between Dynex, De Montfort University and two high technology companies, Converteam and Dudley Associates (Wilson 2007).

The acquisition enabled CSR Times to access technology and know-how found in Dynex as well as in UK universities and high technology companies. However it also made it possible for CSR Times to acquire significant business expertise.

6.4.2. Business expertise

In September 2012 a group of colleagues from China were visiting Dynex in Lincoln. The visiting staff came from three different sister companies in China. The delegation consisted of 11 people and was divided into several groups including: international R&D, sales and marketing and human resources. The purpose of their visit was to attend training courses run by the Business School at Nottingham University. The staff from China attended lectures and presentations at the University in their relevant disciplines.

The group of engineers from China attended a course on how R&D is conducted internationally. Fortunately, three of the engineers were available for interview. They provided more insight into their roles in China and the training course they were attending at Nottingham University. One of the engineers works at CSR Nanjing Puzhen and is an electrical systems engineer. In the past he designed

electrical systems for trains and electric cars but has since been promoted to assistant director of the assembly workshop. The duration of his training in the UK was three months (Interviewee C2 2012). The second engineer came from Zhuzhou Electrical Module Company which manufactures electrical modules and metro cars (Interviewee C3 2012), while his colleague is a design engineer whose company is specialised in the design and manufacture of wagons (Interviewee C4 2012).

Based on the descriptions of their roles it is clear that the engineers from China are well qualified and experienced in their respective technical fields. However their knowledge of conducting R&D activities internationally is limited owing to lack of experience. Thus CSR Times' UK base is a convenient springboard for accessing such expertise through courses run by local universities like Nottingham. The visiting engineers were enthusiastic about sharing knowledge with UK universities. They were keen to discuss their roles and welcomed all questions about the companies they work for. The engineers were equally interested in gaining new knowledge on R&D internationalisation at Nottingham University. They also expressed an interest in the ongoing research at the University of Northampton regarding the internationalisation of Chinese firms.

6.5. Investment challenges

CSR Times encountered two types of investment challenges in the UK which can be categorised as cultural and administrative.

6.5.1. Cultural

The Chinese management finds that there are cultural differences between Chinese and British employees. Their perception is that there are differences in the pace of work. "In China we like to do things quickly but here things are done slowly" (Interviewee C1 2012). The R&D centre has high expectations but things sometimes do not happen as fast as the Chinese owners would want them to. CSR Times' "biggest challenge is that we are not moving fast enough" (Interviewee C1 2012). Their impression is that when British engineers are given a task they make detailed plans and think things through several times over. They take a long time before taking any action but the Chinese do things very

differently. They don't plan and then act. "Instead they act immediately and plan alongside what they are already doing" (Interviewee C1 2012).

6.5.2. Organisational

The second challenge encountered by CSR Times relates to government immigration policies which restrict the entry of Chinese citizens into the UK. CSR Times has problems in obtaining visas for temporary and permanent employees. It is especially difficult for them to be granted long term visas as their applications are often rejected.

The problem of visas has been highlighted by many of the Chinese firms participating in this study. It makes it difficult for Chinese employees that need to travel from China to UK frequently.

6.6. Investment effects

When CSR Times took over Dynex it retained the management board with the addition of two Chinese managers – one to lead sales and marketing, and the other to lead research and development. CSR Times did not replace Dynex's British CEO with a Chinese one after the acquisition. In fact they kept the existing British CEO who was trusted to continue managing the organisation as he saw fit. Dynex was granted a high degree of autonomy by its Chinese parent company (Liu 2013). Most of the employees are from Dynex and the local labour market while "only about 20% are from the parent company" (Interviewee C1 2012).

The management style is more western than Chinese because most of the managers are British. From the new owner's point of view it is vital that stability is maintained within the management team and amongst the rest of Dynex's workforce. In the words of the UK R&D centre's director "we want the technology to change not anything else" (Interviewee C1 2012). Although few changes were made to the management structure and Dynex continues to enjoy a high degree of independence from its parent company, the investment effects were considerable.

The effects of Zhuzhou's investments are not the same as those displayed by SAIC and CQME and are therefore addressed under four different sub-headings.

6.6.1. Financial investment

One of the benefits of the acquisition from a Dynex point of view is access to financial resources as pointed out by its President and CEO, Dr Paul Taylor, "There is not only excellent product and technology synergy with Dynex but they also bring strategic focus and access to greater financial resources" (Dynex Semiconductor 2008). CSR Times' financial strength is illustrated by its acquisition of land and buildings used by Dynex Semiconductor in Lincoln. (Dynex Semiconductor 2012a).This investment will allow Dynex greater flexibility for future development of operational facilities and reduction of fixed costs in the long term. CSR Times' financial influence is also evident through its extensive investments in Dynex's production and R&D facilities.

At the time of the acquisition Dynex was seeking a new investment partner. Its facilities needed to be upgraded but this was not something Dynex could achieve on its own. CSR Times proved to be a good choice because of its financial stability and willingness to invest. "After the acquisition we have invested about £30 million. We first bought 75% of Dynex shares, we then invested £12.5 million to upgrade the production line" (Interviewee C1 2012). Following that the Chinese company purchased the land on which Dynex's business premises are located and invested in new buildings onsite. A new energy efficient building was completed in 2012 at Doddington Road, Lincoln which houses the R&D engineering teams, senior executive offices, finance department and conference rooms (Dynex Semiconductor 2013a). The new offices were formally opened in July by the President of the CSR Corporation.

As a result of CSR Times' financial position all 200 employees from Dynex were retained and another 100 new ones have been recruited. Dynex now owns the land its premises are built on and it has a new building. Moreover the production line has been upgraded and several new R&D projects have been set up. All this would not have been possible prior to CSR Times' investment because of limited financial resources. Dynex "can now do more than they could in the past" (Interviewee C1 2012).

6.6.2. Production capability

CSR Times has made significant investments in Dynex's production capability. One of its key investments in production has been the expansion and upgrading of Dynex's silicon fabrication facility. The value of the project was £12.5 million and it was completed in June 2012 after 21 months. Dynex's old production line used to process four-inch diameter silicon and has since been upgraded to process six-inch diameter silicon. The facility's production capacity has increased approximately tenfold as a result of the investment. The vast majority of production output will be sold to Dynex's parent company Zhuzhou CSR Times (Dynex Semiconductor 2013c).

Two new six-inch wafer fabrication lines have been installed to meet future demand from China's growing railway sector. Dynex has improved productivity of the newly installed IGBT lines to generate more than 2.5 times revenue in 2011 compared to 2010 (Dynex Semiconductor 2012a). The company also designed and built an advanced test facility in collaboration with a key customer.

Figure 26 - New silicon manufacturing facility in Lincoln

Source: (Dynex Semiconductor 2013c)

Interestingly, CSR Times has also announced the development of an eight-inch high power IGBT fabrication facility in China. The new facility will be one of the largest of its kind with an annual capacity of 240,000 wafers. Most of its production output will be sold in China but it will be designed in such as way that its capacity can easily be transferred to the UK to support high volume demand if needed (Dynex Semiconductor 2013c). This shows that CSR Times is keen to maintain a manufacturing base in the UK and will be able to respond quickly if local demand increases.

Prior to the acquisition Dynex had been a leader from a technological point of view but its scale of production was small compared to that of leading companies. Since CSR Times' investment in production capacity, Dynex can now compete with the world's top semiconductor manufacturers such as Infineon from Germany, ABB from Switzerland and Mitsubishi from Japan. The number of employees at Dynex has grown from 250 in 2008 to approximately 300 in 2013. Today Dynex is the UK's largest manufacturer of high voltage semiconductors (Liu 2013).

6.6.3. R&D capability

CSR Times' considerable investment in R&D facilities enabled Dynex to increase its R&D capacity. CSR Times funded the development of a new R&D facility named "CSR Times Electric Power Semiconductor R&D Centre" which is focused on developing new products and technologies to meet growing demand for power semiconductor products in China and the rest of the world. The new £1.8 million R&D centre was launched in August 2012 creating approximately 40 highly skilled engineering jobs in Lincoln. The company is still recruiting and aims to have 50 engineers working in the new R&D centre (Dynex Semiconductor 2012c).

Figure 27 - New R&D centre launch in August 2012

(Dynex Semiconductor 2012c)

The centre also enhanced Dynex's capability to develop new products and technologies. Its current focus is the development of technology and semiconductor based products for high power electronic equipment in sectors such as railway transportation, electric grids, renewable energy, automotives, industrial equipment and aerospace. During 2011 R&D activities were directed

towards building platform technologies for the next generation of IGBTs and thyristor components.

For example IGBTs were further improved and significant progress has been made in the development of a more advanced high voltage IGBT and fast recovery diode chip. These products are expected to form the basis of new products in the near future. In the longer term, Dynex's R&D activities will be focused on creating IGBTs and diode processes and designs compatible with eight-inch silicon. These will have increased capacity and will therefore be suitable for higher volume markets such as electric vehicles, wind turbines and solar power systems (Dynex Semiconductor 2012a).

In 2012 the UK R&D centre developed a number of new IGBT modules which have been installed successfully into railway systems (Dynex Semiconductor 2013a). Some of the latest IGBT modules have been redesigned for improved technical performance and reliability. In other non railway transportation sectors such as renewable energy and electric grid application, the R&D team has also improved the technical capability of existing chips, created prototypes for certain modules and made notable advances in fundamental research (Dynex Semiconductor 2013a).

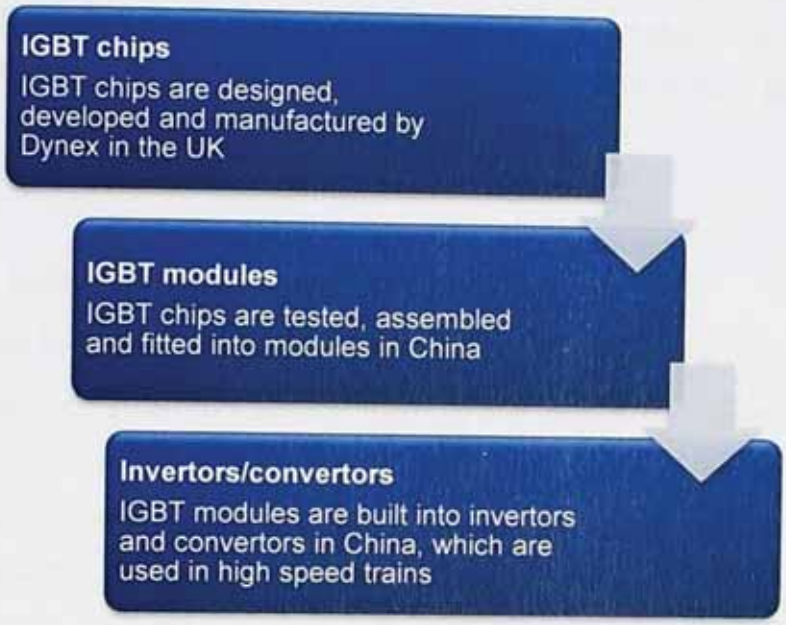
6.6.4. New market

One of the key advantages of being owned by CSR Times is the opportunity to access the Chinese market which has high demand for railway equipment. In China railway construction is growing rapidly. The population is huge and railway transportation is a very popular means of transportation for both business and leisure. Railway transport is inexpensive in China which is why most people travel by train and most goods are also transported in this way. Therefore there is "great demand for railway equipment such as locomotives and wagons" (Interviewee C3 2012).

Dynex has gained access to the Chinese fast-growing market through its relationship with CSR Times. The chances of Dynex succeeding in this market alone would be very low. Its main product, the IGBT module is a key component of

invertors and convertors used in high speed trains. These devices are manufactured by sister companies in China and are built into electrical locomotives and metro cars which are also made by CSR Times. Through its supply of IGBT chips Dynex has become an integral part of CSR Times' production chain (Interviewee C3 2012). Prior to the acquisition CSR Times used invertors made by Siemens but now they have the technology to manufacture them in-house. First of all the IGBT chips are designed, developed and manufactured in the UK. They are then shipped to China for IGBT testing and assembly after which they are built into IGBT modules. The modules are used in the production of convertors and invertors which are fitted into high speed trains.

Figure 28 - Dynex's role in CSR Times' production chain



Source: Author's interpretation

Dynex moved into a new market which would not have been possible without the support of its parent company CSR Times (March 2011). Dynex now has a route to China's vast market for high power semiconductors. Moreover since the acquisition CSR Times has become Dynex's most significant customer, accounting for one third of the company's total sales (Liu 2013). CSR Times also distributes Dynex's products to Chinese companies in high-tech industries such as transport, smart-grid aerospace, electric vehicles and renewable energy (Liu 2013).

Admittedly the high speed train accident that occurred in July 2011 caused a slowdown in high speed rail projects in China. However the government's commitment to expansion remains strong and the amount of planned investment has not been reduced. In the medium-term demand for IGBT modules manufactured by Dynex remains strong and is expected to increase as a result of the development of electricity, transmission and distribution networks in China.

Mr Li Donglin, the Chairman of Dynex and Executive Director and General Manager of CSR Times admitted that investments in the Chinese railway system have slowed down temporarily but believes that there is "still a robust, long-term demand for the expansion of the Chinese national railway and urban metro systems" (Dynex Semiconductor 2012b). He is confident that further demand will be generated by China's development of renewable energy from wind power and photovoltaic power generation. Greater demand is also likely to be fuelled by the construction of smart electric grids in China.

6.7. Concluding remarks

Similar to CQME, Zhuzhou CSR Times' decision to invest in the UK was driven by its need for strategic assets. Namely the company gained technology, know-how and business expertise when it acquired Dynex. In doing so CSR Times encountered investment challenges relating to cultural and administrative issues. Its investment activities in the UK influenced Dynex in terms of financial investment, production capability, R&D capability and access to the Chinese market. The next chapter investigates the investment activities of another six Chinese multinationals including: Changan, Weigao, Mindray, TP Link, Hytera and Vanceinfo.

7. Other case studies

The in-depth analysis of SAIC, CQME and CSR in the previous three chapters was possible because of the large volume of high quality data available on these companies. The data was gathered from interviews, existing research papers, company documents and websites as well as various media portals. The combination of data sources was different for each of these firms but was substantial enough to warrant an in-depth case study.

Extensive interviews were undertaken with numerous respondents from SAIC and CQME which is where much of the data came from. Meanwhile the interview with CSR was not as long but generated rich data because it was a group interview. It included a manager from the UK as well as three engineers from the company's headquarters in China. The interview data from SAIC was supplemented by data from previous academic studies. The case of MG Rover has attracted much academic research in the context of the changes taking place in the British automotive industry.

Company documents and a presentation provided by PTG were valuable sources of information on CQME's investment. Moreover the media attention dedicated to SAIC and CSR because of their size and reputation in China meant that there was ample publicly available information on these companies including their acquisition activities in the UK. Company websites also proved to be a useful source of information. This is especially true of the Dynex website which contains a great deal of detailed information on the company and its relationship with its owner CSR.

On the other hand, the six companies examined in this section were analysed in less detail because of limited data availability. In some cases interviews were conducted with one interviewee and took approximately one hour e.g. TP Link and Mindray. In other cases the interviews yielded data that was not as rich as was expected e.g. Changan and therefore could not be used for in-depth analysis. Companies like Hytera, Weigao and Vanceinfo are not well-known in the UK or in China and therefore there was little publicly available information on them. Some of the websites were also less informative those of the in-depth case study firms.

This chapter looks into a further six Chinese firms that have undertaken investment activities in the UK. They are: Changan, Weigao, Mindray, TP Link, Hytera and Vanceinfo. Each case begins with an overview of the company and then moves on to explore their modes of entry, investment motivations, the challenges they encountered and the effects of their investments.

7.1. Changan

7.1.1. Changan overview

Since 2009 China has been the world's largest producer and consumer of cars and light trucks. According to the China Association of Automobile Manufacturers, 19.27 million vehicles were made in China last year (Young 2013). Moreover the rapid growth of the Chinese car market is reflected by a 7% increase in car sales in 2012 (Young 2013).

Changan is one of the top ten vehicle manufacturers in China. It produces passenger cars and commercial vehicles such as vans and trucks. The company was founded in1862 (Changan 2012a) and its headquarters are located in Chongqing, China. Changan is China's largest national car brand measured by output (Chang 2012) and the fourth largest automotive company measured by total unit sales.

Table 9 - Chinese automotive companies according to total unit sales

Company	Total unit sales
SAIC Motor	357,800
Dongfeng Motor Corporation	198,900
FAW	162,500
Changan	**147,500**
BAIC Group	123,900
GAC Group	48,300
Brilliance Auto	46,300
Great Wall	40,900
JAC	38,300
BYD	35,300

Source: (Young 2013)

Changan has approximately 50,000 employees and offices in six cities in China – Chongqing, Beijing, Jiangsu, Hebei, Zhejiang and Jiangxi. It has a total of 15 vehicle and engine factories with the capacity to produce two million vehicles and two million engines per year (Changan 2012a). Much of Changan's success in the domestic market can be attributed to the sale of vehicles under foreign company brand names such as Ford, Mazda and Suzuki.

Changan's earliest joint venture arrangement was set up with Suzuki in 1993 in which it holds 51% equity. Changan Suzuki currently produces 20 different types of cars across four ranges which include TianYu, Swift, LingYang and Alto (Changan 2012d). These products are amongst the most profitable for the company, generating a net profit of 187.5 million Yuan which equates to approximately £20 million (Chongqing Changan Automobile Company Limited 2012)

Figure 29 - Suzuki Changan logo and car

Source: (Changan 2012d)

Changan also has a joint venture arrangement with Ford and Mazda which is known as the Changan Ford Mazda Automobile Co. The company was established in 2001 and is 50% owned by Changan. It has two manufacturing bases, one in Chongqing which manufactures Ford and Volvo, and the other in Nanjing which mainly manufactures new Ford Fiesta and Mazda B vehicles (Changan 2012b). This is by far Changan's most profitable product generating 2.6 billion Yuan in 2011 which is approximately £280 million (Chongqing Changan Automobile Company Limited 2012).

Changan also has an engine manufacturing joint venture with Ford and Mazda known as the Changan Ford Mazda Engine Co. It was set up in 2005 to manufacture engines under the Ford and Mazda brand names. The company manufactures five types of engines (BZ 1.3L\ BZ 1.5L\ 1.6L and NI4 2.0L\ 2.3L) across two different engine series (Changan 2012c).

Figure 30 - Mazda and Ford cars; Mazda Changan logo

Source: (Changan 2012b, 2012c)

Changan's latest domestic joint venture was set up in 2011 with PSA Peugeot Citroen. The company is 50% owned by Changan and is known as CAPSA. It is planned to manufacture cars under PSA's brands as well as under Changan's own brand. CAPSA began by importing and selling the Citroen DS3, DS4 and DS5 in 2012 before starting local production this year (China Daily 2011b). CAPSA Shenzhen has two vehicle plants and is in the process of constructing an engine plant in the same location (China Daily 2011b). Unlike most international automotive JVs in China, CAPSA is also constructing an R&D centre to develop new environmentally friendly cars (China Daily 2011a).

Changan's international JVs have been profitable and as such have made a significant contribution towards the company's success in China. However, Changan's ambitions to become a leading global automotive company cannot be fulfilled using brand names of other companies alone. It is for this reason that the company decided to launch its own brand. So far Changan has developed a series of own brand cars including the CX30, CX20, Yuexiang, Benben, Honor and more recently models such as the new Raeton, CX35 SUV and EADO sedan (China Car Times 2012).

Figure 31 - Changan's own brand passenger cars: CX20 and Benben Mini

Source: Changan company website 2013

In order to build a world renowned brand Changan is developing its own technology. The Vice President of Changan, Mr Huarong Zhu recognises that it is "vitally important for a company to own its own brand and technologies" (Hu, Yingzi 2013) which is why R&D has been a long-standing focus for Changan. It has 5 R&D centres in China including the Research Institute of Automotive Engineering in Chongqing as well as Automobile Research Institutes in Shanghai, Beijing, Harbin and Jiangxi.

Changan has also set up four global R&D centres in the US, UK and Japan (Changan UK R&D Centre Limited 2013b).The R&D centre in Turin, Italy is in charge of styling; the centre in Yokohama, Japan is responsible for interior design; the US centre is located near Detroit and specialises in chassis design and development; while the UK R&D centre in Nottingham deals with advanced engine and transmission design and development. 10% of Changan's employees are engaged in R&D and are reported to create two patents per day across the entire organisation (Hu, Yingzi 2013).

By setting up global R&D centres Changan is able to tap into local areas of excellence in order to improve its technological capacity. Over 90% of Changan's employees abroad are foreign nationals (Hu, Yingzi 2013), many of whom are engineers with specialised skills and experience. For example, Italy is a world-renowned centre for automotive design which is why most of Changan's cars are designed at the Turin R&D centre. A further example is the US R&D centre near Detroit which has strengths in auto-chassis technology such as performance development, computer-aided engineering, technology research and manufacturing process research (Zhang 2011). A recent outcome of Changan's global research and development team is the new EADO which took three years to develop. It is a mid-range passenger car created for global market according to international standards (Changan Automobile Company Limited 2013).

7.1.2. Changan's entry into the UK

As part of its global R&D strategy Changan established a centre for research and development in Nottingham. The centre was launched in June 2010 and it specialises in powertrain design and development (Changan UK R&D Centre Limited 2013a). At present the R&D centre is located at Nottingham Science Park but Changan plans to build "a more permanent base in the UK" (Interviewee D1 2011). The existing site is rented but the company would like to own a site and has plans to set up further R&D centres in the UK (Changan UK R&D Centre Limited 2013a).

7.1.3. Investment motives

Changan's investment in the UK was primarily driven by access to strategic assets. The company is particularly interested in acquiring technological know-how. The Vice General Manager of the UK R&D centre acknowledges that the company's technology is "currently not world class" and that there is "still a significant technological gap between China and the UK" (Interviewee D1 2011). However Changan aims to achieve its ambitions of becoming a world leading automotive company by upgrading its technology.

Like all of its other global R&D centres, the UK R&D centre was set up primarily to acquire the latest technologies. Changan's aim is to utilise technological resources available in the UK with the intention of becoming more and more self-sufficient as their technological base grows. The Vice General Manager emphasises that there will "be a need for collaboration with external organisations" even when the centre has reached a target of 200 R&D employees (Interviewee D1 2011).

Changan is particularly interested in accessing the UK's expertise in powertrain technology. Despite the collapse of the UK automotive industry Changan recognises that the skills and experience they need still exist. The company's decision to locate its R&D centre in Nottingham was driven by the legacy of the automotive industry in the Midlands region in areas such as Northampton, Leicester and Birmingham. Changan is directly accessing UK expertise by hiring highly skilled local employees who were at least principal engineers in their previous roles. The R&D centre had 43 employees when the interview was conducted in May 2011. "The majority of these employees (36) are involved directly in R&D and have been recruited locally" (Interviewee D1 2011). Very few employees have been brought from China.

Changan is particularly interested in R&D collaborations with UK universities located in this region. The company has done comprehensive research on the expertise held by each university. For example Changan is aware that the University of Birmingham has competencies in powertrain research, the University of Nottingham has expertise in engine development, while Loughborough is specialised in engine testing (Interviewee D1 2011). The Vice General Manager of the R&D centre has already established contact with several universities in the

region including Nottingham, Leicester, Derby and Coventry and plans to establish links with others in due course.

Besides universities, Changan is also interested in working with local automotive consultancies that have powertrain expertise. Private companies such as Ricardo, Mahle, Mira and Cosworth are of particular significance to Changan (Interviewee D1 2011). The Chinese automotive company is already working with some of these companies. For example Changan is currently using Mira's testing facilities until they have their own. It is also working with a company called GNW which is specialised in making prototypes.

Changan's decision to establish a R&D centre in the UK was driven not only by the country's automotive expertise but also its strengths in "aerospace and F1 industries" (Interviewee D1 2011). This is because some of the new technologies developed in these sectors can have applications in the automotive sector. Changan is also planning to set up R&D collaborations with other local automotive consultancies and research institutes.

Changan's decision to invest was also encouraged by the UK government's "low carbon strategy and its drive towards sustainable development" (Interviewee D1 2011). The company is investing heavily in research and development of new energy vehicles. It has set up the Chongqing Changan New Energy Automobile Company which is dedicated to the core technology development of hybrid vehicles, electric vehicles, fuel cell and other energy focused automotive technologies (Changan UK R&D Centre Limited 2013b). Changan is the first Chinese company to produce hybrid electric vehicles for mass production and it has also developed a hydrogen powered concept sports car known as Qingcheng.

Figure 32 - Changan's new energy R&D team

Source: (Changan Automobile Company Limited 2012)

The investment challenges encountered by Changan are not included owing to insufficient data. During the interview there was not enough time to discuss this topic with the respondent. In addition a search for publicly available information on the challenges experienced by Changan did not bring any meaningful results.

7.1.4. Investment effects

The establishment of Changan's UK R&D centre has two key implications relating to financial investment and creation of new R&D projects.

7.1.4.1. Financial effects

The first and most evident relates to financial resources brought into the UK. "Between January and May 2011 Changan invested £10 million pounds" (Interviewee D1 2011). Further investments are likely to follow as Changan plans to open new R&D centres and invest in a permanent UK base. Changan is contributing towards the buoyancy of the automotive sector by engaging the services of local consultancies on a contract basis e.g. the use of Mira's testing facilities. The same is true of the academic sector which continues to provide technology specific R&D services to Changan. Given its global ambitions and technological needs Changan is likely to form further collaborations with other local universities and automotive consultancies to the mutual benefit of all concerned.

7.1.4.2. New R&D projects

Further implications for the local economy are less tangible however. Changan's continued focus on R&D and emphasis on external collaborations means that local R&D consultancies and universities are likely to be engaged in high end projects. They will not only be contributing towards the creation of new technology but will also be developing their own technological capabilities in the process. This is especially true of new energy technologies on which Changan is focused. R&D projects in this field will provide a good opportunity for local organisations to learn and develop their expertise in technologies that may well represent the future of automotive engineering. Changan's plans to establish a long-term R&D presence in the UK should provide many high end projects for local R&D organisations to work on in the future.

7.2. Weigao

7.2.1. Weigao overview

Weigao is a privately owned Chinese medical equipment company. It was founded in 1988 (Weigao Group Corporation 2013a) and the company head office is located in Weihai, Shangdong (Weigao Group Corporation 2013d). Weigao's main activities include R&D, manufacturing and sales of single-use medical equipment. Its extensive product range consists of three major products groups:

1. Consumables (syringes, medical needles, blood bags etc)
2. Orthopaedic materials and instruments (steel plates, screws, artificial joints etc)
3. Blood purification consumables and equipment (puncture needles, extracorporeal blood circuits for blood purification sets, dialyzers etc) (Weigao Group Corporation 2012a).

The company had a total of 8,935 employees in December 2012. Its large sales network across China consists of 24 sales offices, 30 customer centres and 119 municipal representative offices (Weigao Group Corporation 2012a). Weigao is currently focused on the Chinese market which is reflected in the structure of its annual turnover for 2012. The majority of the company's turnover (94%) can be attributed to domestic sales, while the remaining 6% relates to overseas sales (Weigao Group Corporation 2012a).

Weigao has been actively exploring international business opportunities and its products are currently being exported to 30 countries and regions across the world including Australia, Germany, UK and the US. Some of its products meet international standards such as ISO9001 and EC Certification which ensures that they can be sold in overseas markets (Weigao Group Corporation 2013b).

The company's success over the last four years is reflected by steady profit growth between 2009 and 2012 as illustrated by the table below:

Table 10 - Weigao's net profit between 2009 and 2012

Year	2009	2010	2011	2012
Profit ('000 RMB)	633,864	760,628	958,036	1,024,441

Source: (Weigao Group Corporation, 2011, 2012a 2013c)

The vast majority of Weigao's sales revenue can be attributed to single-use medical consumables, followed by blood purification consumables and equipment, and orthopaedic equipment respectively. The single-use medical device group generated 83% of the company's total sales revenue in 2012, blood purification consumables and equipment generated 11%, while orthopaedic products generated 6%.

Table 11 - Weigao's total sales revenue in 2012 by product group

Product group	**Sales revenue in 2012 ('000 RMB)**
Single-use consumables	3,063,636
Blood purification consumables and equipment	402,464
Orthopaedic products	223,015
Total	3,689,115

Source: (Weigao Group Corporation 2013c)

Weigao currently manufactures products on an OEM (Own Equipment Manufacturing) basis which means that its products are sold under other companies' brand names rather than its own. The Chinese medical device manufacturer intends to develop its own products and to become an internationally

competitive medical device company. In order to achieve these aims Weigao has placed strong emphasis on research and development both nationally and internationally.

In 2012 the company invested approximately 170 million RMB in research and development which represents 4.6% of the company's total turnover for that year (Weigao Group Corporation 2013c). During 2012 Weigao registered 53 new patents while a further 55 patent applications are currently under review. The company also obtained 38 new product registration certificates and is in the process of registering 46 more new products for which R&D work has been completed (Weigao Group Corporation 2013c).

The company is actively engaged in R&D projects nationally and has established nine R&D centres across China. It also has R&D collaborations with local research institutes and universities and is involved in numerous national projects including Project 863, Project Torch, Model Project of National High Tech, The Key National Program of the State and others (Weigao Group Corporation 2013b). Weigao recently signed a strategic cooperation agreement with the Academy of Military Medical Sciences. Based on the agreement the Academy will support Weigao in terms of pharmaceutical development, scientific and technological knowledge transfer and the development of biomedical competencies (Weigao Group Corporation 2012b). At present Weigao is working on a number of R&D projects relating to drug eluting stents, pre-filled syringes, and orthopaedic material.

Weigao attaches a great deal of emphasis on innovation as a source of growth and is increasingly setting up R&D activities abroad. It is currently engaged in R&D projects in Europe especially in Germany and the UK. Weigao's interest in Germany is based on the country's expertise in medical engineering and it has three employees there. The company has a number of R&D collaborations with German partners "to develop new technologies and prototypes" (Interviewee E1 2012).

7.2.2. Weigao's entry into the UK

Weigao set up an office in the UK under the name Wego Medical Europe Limited. The office is quite small with three employees and undertakes sales and R&D activities. Wego UK distributes and modifies existing products, undertakes market research and new product development.

7.2.3. Investment motives

The Weigao Group invested in the UK to access the market as well as strategic assets. Wego is currently distributing existing products and modifying them in accordance with local standards. The company's products are being marketed through seminars and workshops and it plans to start supplying the NHS directly. Medical equipment for the Chinese market differs to that found in the UK in terms of design and size e.g. orthopaedic equipment or catheters. Thus Wego is working with British partners to modify its products based on local requirements (Interviewee E1 2012).

The company also set up a UK subsidiary in order to access strategic assets in the form of local research and development expertise. In particular Wego is undertaking market research into the UK medical equipment market. It has set up a China Business Research Project at Essex Business School, University of Essex. The aim of the project is to undertake research in the fields of international business and strategy relating to Chinese business in Europe and the UK (University of Essex 2013).

The project is funded by Wego and is focused on high technology industries especially medical devices, heart care, biotechnology and information technology. Essex Business School is providing consulting and research services on Weigao's internationalisation strategy. For example business school students are currently undertaking live case study research to find partners that Weigao could form potential mergers and acquisitions with (Interviewee E2 2012). The new knowledge generated by this research will help to inform Wego's further investment decisions in the UK market. In addition to research activities Wego is also "working with doctors to develop new products" (Interviewee E1 2012).

A section discussing Weigao's investment challenges has been omitted owing to lack of data. Although questions around investment challenges were planned, they were not covered in the interview due to time constraints. The researcher requested further interviews but this was, unfortunately, not accepted. In addition a secondary data search did not produce any useful information on this topic.

7.2.4. Investment effects

Based on the interview with Weigao's manager it is clear that the implications of the company's UK presence are twofold. First, the availability of its products is likely to make the market more competitive, while customers will benefit from additional products to choose from. Second, Weigao's R&D projects in the UK may be beneficial to local universities and other research organisations involved in these collaborative projects. The R&D projects represent a source of revenue and at the same time they stimulate high end work for local research and development organisations. Weigao's product development activities provide UK partners with the opportunity to work with new technologies and advance their own knowledge and expertise in the process.

7.3. Mindray

7.3.1. Mindray overview

Mindray is China's leading medical device manufacturer. The company was founded in 1991 by Huang Xu and Xiting Li , who were formerly employed as engineers in a state-owned medical device manufacturing company in the 1980s (Deng 2012). The company's global headquarters are located in Shenzhen and it employs approximately 6,800 people globally (Mindray 2012). Mindray develops, manufactures and markets medical devices across three main product categories: patient monitoring and life support products; in-vitro diagnostic products; and medical imaging systems (Mindray 2012).

Patient monitoring and life support products track physiological parameters such as heart rate, blood pressure, respiration and temperature. Mindray currently offers around 50 different patient monitoring devices (Mindray 2013b). In-vitro diagnostic products include haematology and biochemistry analysers which

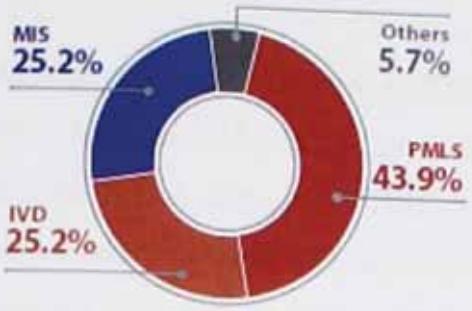
provide data and analysis on blood, urine and other bodily fluid samples for clinical diagnosis and treatment. Mindray offers both semi-automated and fully-automated in-vitro diagnostic devices. Medical imaging systems include ultrasound, digital radiography, MRI and Picture Archiving and Communication Systems (PACS). Mindray currently offers over 25 different medical imaging devices.

Figure 33 - (From left to right) Mindray's diagnostic ultrasound system DC-7, patient monitor iPM-9800 and auto haematology analyser BC-6800

Source: (Mindray 2013b)

Patient monitor and life support devices are currently the company's largest and most profitable product group. In 2011 43.9% of the company's total revenue was attributed to this group of products. For the same year, in-vitro devices and medical imaging systems each generated 25% of total revenue, while other products generated the remaining 5.7% (Mindray 2012). Mindray estimates that it presently holds 10% market share in the global patient monitoring device market (Mindray 2012), making it the third largest player behind leader Philips Electronics and General Electric Healthcare Life Support Solutions (Tsuruoka 2011).

Figure 34 - Revenue for 2011 according to product groups



Source: (Mindray 2012)

While China remains its main manufacturing and R&D base, Mindray has a global sales and service network comprising of 31 offices across China and numerous overseas offices across the US, Latin America, Europe and Asia (Mindray 2013a). Its products can be found in over 190 countries and regions around the world. Mindray is the largest medical device manufacturer in China and nearly half of its business is conducted in this market (43%).

The company's ambitions, however, are not confined to the domestic market. Mindray's global plans are made clear in a statement by Cathy Gao, the company's spokeswoman for investor relations, "We want to become a global company" (Tsuruoka 2011). Mindray aspires to become one of the top medical device manufacturers in the world and has already taken steps towards achieving its goal. The company has a significant world presence whereby 33% of its business activities are located in emerging markets and 24% are located in developed countries (Mindray 2012). Its main global rivals are General Electric, Siemens and Philips.

Mindray's R&D capability has been one of its core strengths from the very beginning. The company's heavy investments in R&D began in 1992 just one year after it had been set up. This led to the development of Mindray's first patient monitoring device (Deng 2012). In 1993 the R&D team developed China's first multi-parameter patient monitor, followed by the country's first three-part differential analyser in 1998 which is used for blood testing and analysis (Tsuruoka 2011). Mindray was the first company in China to develop a number of medical devices. In 2006 it developed the five-part haematology analyser, followed by the

colour Doppler laptop-size ultrasound system in 2008 and the high end five part haematology analyser in 2011 (Mindray 2012).

Today Mindray has a global R&D network consisting of centres in Shenzhen, Beijing, Nanjing, Shanghai, Chengdu, Xi'an, Seattle, New Jersey, Miami and Stockholm. The company's R&D spending has remained consistently high at approximately 10% of its total annual revenue. Consequently Mindray has managed to introduce an average of eight products a year over the past seven years (Mindray 2013a).

Most of Mindray's overseas R&D centres are located in the United States. In fact the company's first international R&D centre was set up in Seattle in 2006. This is because Seattle is a centre for ultrasound innovation with a large pool of technology experts and engineers. For Mindray, the Seattle R&D centre is all about developing the company's technological and marketing expertise. In the words of the centre's General Manager Mr Weng Lee, the Seattle R&D centre "opens a window to our engineers and marketers in China. We learn technologies, customer expectations and marketing philosophies ..." (Deng 2012).

Mindray's US expansion continued with the acquisition of Datascope's patient monitoring business in 2008 based in New Jersey (Mindray 2012). The transaction was valued at USD 209 million and represented a significant step in Mindray's expansion into US and Western European markets (Mindray 2008a). The acquisition gave Mindray access to Datascope's established brands, its long-standing reputation for high quality products and service, as well as its extensive and established direct sales and service network in the US and Europe (Mindray 2008b). Mindray also benefitted from Datascope's technological expertise in patient monitors and its innovative patient monitoring solution, NetGuard, designed to detect unexpected cardiac arrests in previously unmonitored patients (Mindray 2008b). The New Jersey R&D centre previously owned and operated by Datascope is now an integral part of Mindray's global R&D network.

From the outset Mindray focused on developing the internal R&D capability needed to develop internationally competitive products. Its innovation strategy focuses on product features but also on emotional benefits to doctors and patients.

Mindray's innovations are geared towards the needs of medical staff, procurers and hospital administrators rather than technological enhancements themselves (Kwaku, Xu 2012). Its approach to innovation is very much based on the end user experience. For example one of the company's aims is to create patient monitors that are simple to use enabling doctors "to make faster and more accurate decisions" (Interviewee F1 2012). This is becoming increasingly important in the hospital environment which is laden with various machines, cables and data making it difficult to extract relevant information at the right time.

7.3.2. Mindray's entry into the UK

Mindray first entered the UK in 2006 by setting up a wholly owned subsidiary. Two years later Mindray's acquisition of Datascope had an effect on the company's UK operations because Datascope already had an office there. Once the transaction was finalised in 2008 Datascope's UK office merged with Mindray's UK subsidiary to form a single unit owned and operated by Mindray (Interviewee F1 2012). Today the UK subsidiary carries out mainly sales and marketing activities.

7.3.3. Investment motives

Mindray's decision to invest in the UK was largely market driven. The company decided to enter the UK market because of high healthcare standards and sophisticated customers. The rationale was that if the UK market accepted their products then they "would be suitable for most other countries" (Interviewee F1 2012). Thus if Mindray could meet the high standards of the UK healthcare market, this would increase its chances of succeeding in other international markets.

The company was also encouraged by the openness of the market and by the fact that there was no language barrier because most of their Chinese employees speak English. Mindray also has strong links with local university hospitals with whom they carry out extensive clinical trials.

7.3.4. Investment challenges

Selling products and building brand awareness in the UK has been quite a challenge for the Chinese manufacturer (Liu, Liu 2013). This is because the Mindray brand is largely unknown to end users such as doctors and nurses. Hospitals are likely to buy equipment that employees are familiar with. They are quite "conservative" customers in the sense that they are not keen to try unfamiliar brands (Interviewee F1 2012).

Most doctors and nurses in UK hospitals have been using products made by Philips Healthcare and General Electric Healthcare for many years making it difficult for new companies to enter the market. The UK market is perhaps "less open than some other markets that welcome newcomers and are willing to experiment with new brands" (Interviewee F1 2012). However Mindray has managed to overcome these challenges having successfully entered the NHS's procurement system which is one of the most rigorous in the world (Liu, Liu 2013).

7.3.5. Investment effects

Mindray's UK subsidiary is impacting several aspects of the medical device industry including customers, competitors and partner organisations. Customers are benefitting from the company's UK presence first because they have more choice. In the past hospitals had two to three medical device manufacturers to choose from and once the decision was made they would stick with the same company for years to come. Changing machines is a difficult process because it involves re-training staff to work with new machines which may be unfamiliar to them. Thus there is increased risk of errors until they get used to working with new devices (Interviewee F1 2012). Mindray's competitively prices products are valid alternatives for UK hospitals. In the past hospitals would have had to spend vast sums of money on machine repairs but now they can spend a little more to have their machines replaced by Mindray. This option is particularly valuable at a time when the NHS is looking to lower costs and improve its level of service.

Second, customers are benefitting from product customisation offered by Mindray. They are very flexible in making machines based on the requirements of every individual hospital. Mindray works together with the customer to deliver a product

tailored towards their specific needs. For example customers may request a machine with adjustments and receive it within two to three months. "This kind of product you can't find in the market compared with other players" (Interviewee F1 2012).

Third, customers are benefitting from innovative products developed by Mindray. These products are new and are not offered by other companies in the market. Mindray's products are designed better than rival products and have been long awaited by customers. Once the customers become aware of the availability of such a product they express an interest in purchasing it even though they already have machines from other manufacturers (Interviewee F1 2012).

Mindray's competitors in the UK are well aware of their presence. Many of them mention Mindray in their annual reports as a serious threat. The competitors are changing the way they behave when it comes to pricing. For example when they are competing against Mindray to supply a hospital with devices they offer a "Mindray price" which is equal to or lower than Mindray's. Competitors are also trying to retain their installation base by convincing customers that Mindray's products are inferior to their own (Interviewee F1 2012).

Mindray's UK presence has had significant effects on its partners in the UK and Europe. Patient monitor devices made by Mindray consist of a multitude of parameters which are small functions used to measure patients' vital signs. For example parameters can measure heart rate, blood pressure, respiration rate etc. These parameters are not made by Mindray but are sourced from specialist suppliers in Europe and then integrated into patient monitors. The key benefit for suppliers is that Mindray introduces their products to international markets like China or Brazil (Interviewee F1 2012).

The devices are made in Europe where they are well promoted but are less known elsewhere. Mindray works closely with suppliers to promote their products and develop their brand image in China and other emerging markets where it has a strong presence. Thus Mindray is providing European component or parameter suppliers with the opportunity to distribute products and build their reputation in emerging markets.

For example a German parameter company makes small modules which measure cardio output parameters to test cardiac function. The module measures the volume of blood pumped with every heart beat. This is a new parameter which Mindray decided to build into its patient monitor devices. Now patient monitors containing the parameter are being promoted by Mindray in China.

The supplier is gaining multiple benefits from Mindray's UK presence (Interviewee F1 2012). First of all supplier sales have been boosted by demand from Mindray. Secondly their products are being promoted in new markets where they are beginning to build a reputation. Finally it also opens up opportunities for suppliers to sell disposable consumables such as catheters along with their main products.

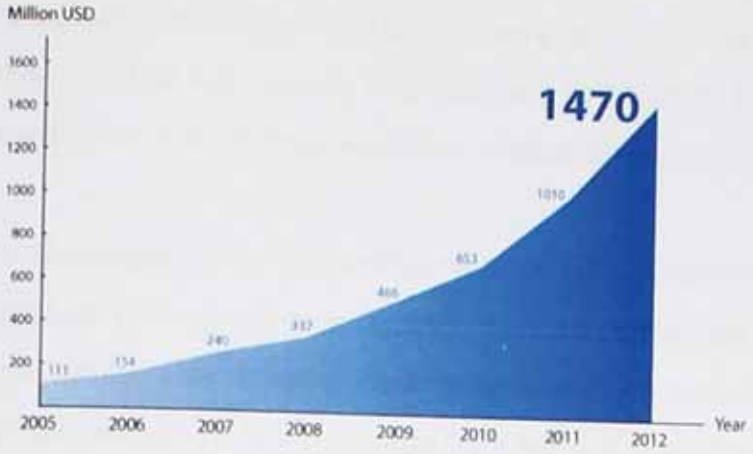
7.4. TP Link

7.4.1. TP Link overview

TP Link is a Chinese manufacturer of computer networking products with headquarters in Shenzhen. The company was founded in 1996 by two brothers and currently employs 14,000 employees worldwide (TP Link 2013b). Its flagship products include routers (wireless and ADSL), switches, IP cameras, powerline adapters, print servers, media converters, and network adapters (TP Link 2013a).

TP Link started out as domestic company but its ambitions to become the world's number one networking company motivated it to venture abroad in 2005. Since then its business has been expanding "at an average rate of 40% per year" (Interviewee G1 2012). The company's global sales are continuing to grow at a remarkable rate. The latest figures for 2012 show that TP Link's global sales increased by 45.5% in 2012 (TP Link 2013b).

Figure 35 - TP Link's global sales from 2005 – 2012



Source: (TP Link 2013b)

International sales have become increasingly important generating 47% of the company's total revenue for 2012 (TP Link 2013a). TP Link's products are currently available in 120 countries and are used by over a billion people worldwide. The company has consistently been ranked the world's largest supplier of wireless networking equipment since 2011. It has continued to maintain a dominant lead in the global wireless market based on the number of units sold. According to the Worldwide Quarterly WLAN Tracker, TP Link held 34% of the global wireless networking market in 2012 based on the number of units sold (LAN Product News 2012).

From its early beginnings the company placed a great deal of emphasis on research and development. More than 8% of its annual sales revenue is invested in R&D (TP Link 2013b). TP Link's R&D activities are located in Shenzhen but the company is planning to set up new centres in the US, Germany and the UK (Interviewee G1 2012). These countries have very large, advanced markets and an abundance of experienced IT talent which TP Link intends to draw on for the purpose of expanding its own technological base. According to TP Link's Country Manager for the UK and Ireland, innovation has been a key contributing factor to the company's rapid growth rates since 2005 when it went international.

At present 890 employees are currently engaged in R&D (TP Link 2013b), half of which are devoted solely to product testing to ensure high standards are

maintained (TP Link 2013c). Most of TP Link's employees are very young and energetic. The average age of a TP Link employee is 26 years and most of them are fresh graduates from top universities in China and all over the world. "Most of the staff are very young and they are energetic. They have lots of ideas and their execution is also very very fast" (Interviewee G1 2012).

An example of the innovativeness of TP Link's employees is the TP Link Nano Wireless Router. It was designed by an employee who recently graduated from university. The router is palm-size to ensure portability and it can also be used as an access point or connected to a set-top box. The product is selling very well across the world and has won two awards in the US. It was awarded the Gold award from techreaction.net , a technology news and review blog catering to hardware enthusiasts (TP Link 2012a). It was also awarded the PTPA Winner's Seal of Approval. The PTPA Media is North America's largest volunteer parent testing community (TP Link 2012b).

Figure 36 - TP Link Wireless N Nano Router 150Mbps

Source: (Techradar 2012)

TP Link introduced another innovative product in January 2013, the TP Link "Halo" 150 Mbps Wireless N Mini Pocket Router. It is one of the world's smallest portable routers with a built-in power adapter designed for travel. The "Halo's" design concept comes from the halo of the total solar eclipse with light being cast around its edge – like a wireless signal being broadcast from the router. Justin Tu, Director of International Product Development at TP Link explains "With Halo we reinvented the boring, table top or wall-mounted wireless router into a sleek, portable form factor with built in power plug and powerful wireless speed … without the mess of cables and complex setups" (PR Newswire 2013).

Figure 37 - TP-Link "Halo" Wireless Mini Pocket Router

Source (PR Newswire 2013)

TP-Link was named International CES Innovations 2013 Design and Engineering Awards Honoree for this product (E-releases 2012). Products entered in this prestigious program are judged by an independent panel of industrial designers, engineers and media groups to honour outstanding design and engineering in cutting edge consumer products.

TP Link has also received worldwide recognition for the design of its products. Namely the company's two new portable routers, the TL-M5350 and the TL-MR3040 were awarded the "iF" award for outstanding design in the product category (TP Link 2013d). "iF" is an independent German institute for evaluating design. Each year the "iF" seal of quality is awarded for excellent design in three categories – product, communication and packaging.

Figure 38 - TP-MR5350 and TP-MR3040

Source (TP Link 2013d)

Despite TP Link's heavy investment in R&D and significant achievements in this area, the company still has some catching up to do when it comes to cutting edge technologies. "Currently we are not at the edge of technology" (Interviewee G1

2012). Companies such as Netgear and Nexus are currently at the technological forefront of the computer networking industry. TP Link has made remarkable progress in the last 17 years and it is only a matter of time before it catches up with incumbent technological leaders in this industry.

7.4.2. TP Link's entry into the UK

The decision to set up a UK subsidiary was part of TP Link's international strategy to expand globally. The office was opened in August 2010 in Bracknell and later moved to Reading where it is presently located. The main purpose of the UK subsidiary is to undertake sales and market activities across the UK and the Republic of Ireland. The office is 100% owned by TP Link and it currently employs approximately 20 people. Most of the employees are local and are engaged in sales and marketing activities. "Only three people have been recruited from China – the country manager, the sales manager who is also responsible for communication with headquarters, and the accountant" (Interviewee G1 2012).

TP Link decided to establish its own subsidiary in the UK so that it could "build its own company culture" (Interviewee G1 2012). This type of investment was the most appropriate for the type of activity that TP Link was planning on carry out in the UK. They could recruit employees themselves and did not need to buy an existing business. "It is very hard to buy an independent company and change in to your own" (Interviewee G1 2012).

7.4.3. Investment motives

TP Link's entry into the UK was primarily market driven. The company wanted to have direct access to the UK market taking into consideration factors such as local population and buying power. The UK computer networking market was large enough to warrant a designated subsidiary. TP Link already had an office in Germany but because products for the UK market and European markets are different, separate stock needed to be prepared for the UK (Interviewee G1 2012). One of the key differences is that European products have two-pin plugs while products for the UK use a three-plug system.

7.4.4. Investment challenges

Although TP Link had already successfully set up an office in Germany, they found doing business in the UK to be quite different. In the words of the Country Manager for the UK and Ireland "When we do business here, we start to learn" (Interviewee G1 2012). This is especially true of the distribution channels which have a different structure compared to Europe. Price is not always the most important consideration. Factors such as local support and mutual benefit appear to be equally significant. The way distribution channels are managed in the UK is quite different to other markets that TP Link has experience in (Interviewee G1 2012).

The company has also had to adjust to new cultural settings in Britain. There are differences in terms of work ethic between British and Chinese employees. For example Chinese employees at the UK TP Link office accept evening and weekend work as normal whereas their British colleagues have a stricter work-life divide (Interviewee G1 2012). For Chinese employees in the UK, work is 100% their life while their British colleagues are not keen on working outside office hours. TP Link's management team has had to adjust its expectations in line with local work practices. Therefore they do not expect non Chinese staff to work during evenings, weekends or holidays. Moreover the work pace in the UK is slower than in China which is also something that TP Link's management has had to adapt to. Finally the issue of visas for Chinese employees was highlighted as a challenge to the company's UK operations.

7.4.5. Investment effects

TP Link's entry into the UK in 2010 changed the competitive landscape of the industry. Before the office was set up the company's UK revenue was approximately USD 2 million. "Since then it has increased tenfold to exceed USD 24 million in 2012" (Interviewee G1 2012). TP Link's UK market share has grown at the expense of its competitors whose businesses are in decline. For example two years ago the Taiwanese company D-Link, a global leader, was quite successful in the UK. Since then its market share has decreased significantly. Another smaller Taiwanese company, Edimax was also fairly successful two years ago but has since lost most of its business (Interviewee G1 2012).

TP Link is considering opportunities for product development with local partner organisations. It is currently in discussion with local design companies about product housing, colours and design improvements. Some of the design improvements are for the UK market while others will be targeting global markets. TP Link is keen to make use of local companies to improve the design of its products. Meanwhile this has benefits for local design companies in terms of revenue generation and the opportunity to work on high end projects. The company is also generating additional business for local distributors and increasing their revenue by "offering higher than average margins" (Interviewee G1 2012).

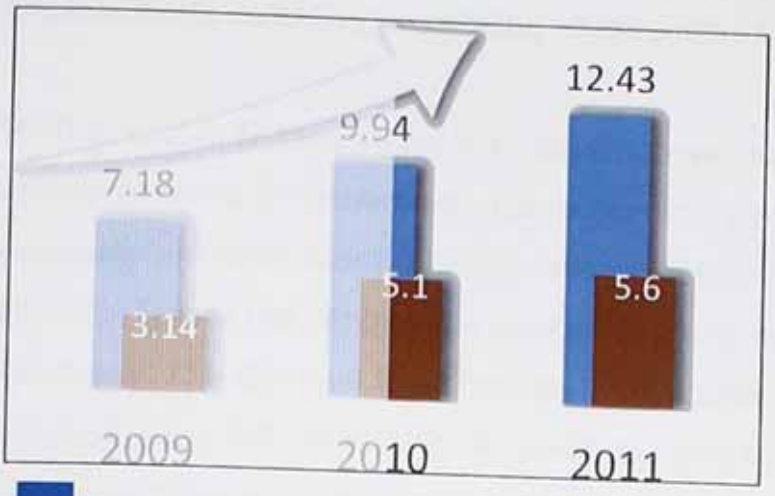
7.5. Hytera

7.5.1. Hytera overview

Hytera is a Chinese manufacturer of professional mobile radio communication equipment. The company was set up in Shenzhen in 1993 where its corporate headquarters are located. Though it was founded only 20 years ago, Hytera has rapidly developed into a leading professional mobile radio communication company at home and abroad. It is ranked second in terms of market share in China (Hytera 2013a). According to the 2010 Global Professional Mobile Radio Market Research Report released by IMS Research, Hytera's market share ranks second in the global overall terminal market (Hytera 2013b). The company's products can be found in over 80 countries and regions in the world (Hytera 2013a). Hytera currently employs over 2,800 people in total (Hytera 2012).

The company's overall sales revenue has increased by 31.6% between 2009 and 2011. International product sales have become an increasingly important source of revenue for Hytera. In 2011 45.5% of the company's total revenue was generated by overseas sales (Hytera 2012). The steady growth of overall and overseas sales revenue is illustrated by the chart below:

Figure 39 - Overall and overseas revenue 2009-2011



Source: (Hytera 2012)

Hytera's range of professional radio communications systems includes three types of products: terminals, systems and applications. These products are developed using TETRA, DMR, PDT and MPT technologies (Hytera 2012). Hytera is the only Asian manufacturer to offer two mainstream digital product lines – TETRA and DMR. In China Hytera developed the PDT standard (Police Digital Trunking) for the Chinese police. The implementation of PDT technology in China means that if international players "want to do business in China they have to use our standard" (Interviewee H1 2012).

Figure 40 - Hytera's product range

Terminals Computer systems Software applications

Source: (Hytera 2012)

Users of Hytera's products can be categorised into three main groups: government organisations such as the armed forces, police, fire and rescue services; utility

companies such as gas, petroleum, water and electricity; and commercial organisations including hospitality, construction, logistics and retail etc.

R&D is vital to Hytera's long term development which is why it invests "12% of its annual revenue in research and development" (Interviewee H1 2012). The company employs over 800 engineers across three R&D centres (Hytera 2012, 2013a). Two of the centres are located in China and the third is located in Germany. The Chinese R&D centres in Shenzhen and Harbin are mostly focused on analogue DMR and DMR Tier three trunking systems. The Shenzhen R&D centre is responsible for terminal products and conventional systems development, while the Harbin R&D centre is focused on trunking systems and solution development. Meanwhile the R&D centre in Germany is devoted to development of TETRA systems (Hytera 2012).

Hytera is a newcomer in professional mobile radio communications having only entered the market 20 years ago. Some of its main competitors such as EADS (European Aeronautic Defence and Space Company) from Europe and Motorola from the US have been in the market for much longer and have therefore developed a leading edge in technological development. Motorola has been in the business for 85 years and they "lead the way in releasing new functions" (Interviewee H1 2012). Hytera's continued investment in R&D means that it will soon catch up with the technological leaders in the industry.

In the meantime its strategy is to compete by focusing on customer value. The managing director of Hytera UK acknowledges that its products are not the cheapest nor are they the best in the market. Nevertheless Hytera has found a clever way of competing against rivals. Its unique selling point is that it strikes the right balance between product price and performance "We are not the cheapest ... we are not the best ... but we have the balance" (Interviewee H1 2012).

7.5.2. Hytera's entry into the UK

Hytera established a representative office in Burton on Trent in 2004 with two staff members sent from headquarters. Two years later the office moved to Milton Keynes because larger logistics and service facilities were needed. More recently

the company relocated to Slough in 2011 where it is currently based. The office houses administrative, sales, finance, product marketing, service and customer training teams most of which are employed locally. The company only has two staff members from Shenzhen. The location in Slough was chosen because of its proximity to the M25 and easy access to London airports. Aside from logistics the town is within commutable distance of London ensuring access to a large pool of skilled employees (Interviewee H1 2012).

The company chose to establish its own subsidiary because it makes it easier to transfer Hytera's company culture to the UK. Buying an existing business would give rise to "cross-cultural problems and would take time to start running smoothly" (Interviewee H1 2012). Having their own subsidiary from the outset ensured that their company culture stayed intact even though 80% of Hytera's employees are local (Interviewee H1 2012).

7.5.3. Investment motives

The company's initial decision to set up a subsidiary in the UK was partly driven by the large market for professional telecommunications. Security in Britain is taken seriously so there is strong demand for mobile radio communication devices made by Hytera. The second reason is the nature of the UK market. "The UK market is very demanding. If we can do business in this country, we can use this country as a reference for other countries" (Interviewee H1 2012). In some ways the company's activities in Britain can be seen as an opportunity to develop skills and expertise which can then be applied and adapted to other developed markets.

Figure 41 - Hytera subsidiary in Slough

Source: (Hytera 2012)

7.5.4. Investment challenges

Hytera's business in the UK has grown fast between 2009 and 2012. In 2009 the company had five main direct dealers and by 2012 it was working with over 20. The company's UK expansion has not been without challenges however (Interviewee H1 2012). The first challenge is of a technical nature and relates to encryption technologies used by the army and the police in the interests of public security in the EU.

These technologies are not allowed to be sold to non European organisations such as Hytera that are automatically excluded from integrating the technology into their products. The encryption is based on algorithms which Hytera had to find a way of purchasing. It overcame this barrier by acquiring Rohde and Schwarz Professional Mobile Radio GmbH in 2011, a German company specialising in professional mobile radio systems (Hytera 2011). Hytera gained the right to acquire the algorithms through ownership of this European company.

Secondly, as a new entrant in the UK mobile radio communications market, Hytera was unfamiliar to local customers and needed time to build up its credibility. This is quite difficult to do given that Hytera is competing with companies that have been in the market for much longer and have established their credibility.

7.5.5. Investment effects

The effects of Hytera's presence in the UK are observed across a range of partners, competitors and customers. Hytera's business in the UK is operated through a network of local partners consisting of four groups: local distributors and dealers; application partners; system integrators and hire or cross-hire partners (Interviewee H1 2012). At present the company works with over 40 dealers in the UK, some of whom are the largest in the industry. For example Zycomm, Apex Radio Systems, Roadphone, Radio Links Communications, Global Communications, Radiocoms and others.

The role of application partners is to develop applications based on the platform provided by Hytera. Applications or programs are built to meet specific customer requirements. For example emergency calls, job dispatching for taxi companies

and GPS tracking. Local application software development partners include companies such as Zonith, Trackranger and Purcell.

Hytera also works with partners known as system integrators who integrate terminals, base stations and applications for customers. They also provide training and after sales services while Hytera's role is to supply the equipment including base stations and terminals. Hytera also works with hire partners that provide customers with professional communication devices. The hire partners provide the service, while Hytera provides the equipment. In the end the profit is shared between the two organisations.

Based on the categorisation of partners and their roles it is clear that Hytera's influence occurs on several different levels. The distributors and dealers had only worked with Motorola in the past but now they also work with Hytera's products. They distribute a larger selection of products and work with larger volumes than in the past. Thus the first implication of Hytera's presence is that it generates additional revenue for partners involved in product distribution.

The gains for partners however are not only financial. Professional mobile radio devices are not entirely standardised and a high degree of customisation is required before the product is delivered to customers. This creates scope for partners to participate in localised product development based on specific customer requirements. In particular application partners play an important part in developing software applications, while partners specialised in system integration are responsible for integrating the computers, terminals and software for each individual customer.

For example Hytera developed a software application for building management with Zonith, a GPS navigation system with Trackranger, as well as a job dispatching program with Zycomm. Thus the second implication is that Hytera's presence stimulates high end work for partner organisations. As summed up by the words of the managing director of Hytera UK "We are not just doing a sales job. We are not just doing distribution here. We do R&D with our partners here. We do system integration" (Interviewee H1 2012).

Competition in the UK mobile radio communications sector has been unsettled as a result of Hytera's entry. Only nine years after entering the UK Hytera has positioned itself as the number two company in this market (Interviewee H1 2012). This is a remarkable achievement for a company that was relatively unknown to UK customers when it started out in 2004. Hytera's UK presence is initiating changes in the behaviour of its rivals. Competitors are adjusting their behaviour in order to remain competitive. They are making changes to their prices, service policies and are working more closely with customers (Interviewee H1 2012).

This is especially true of products using the DMR standard (Digital Mobile Radio), an open digital radio standard specified by the European Telecommunications Standards Institute. In the past Motorola was the only company manufacturing mobile radio communication devices based on this standard. However since Hytera's entry this market segment has become considerably more competitive. Today Motorola and Hytera are the only two companies in the world that manufacture DMR professional mobile radios.

UK customers are deriving a number of benefits from Hytera's entry into the UK professional mobile radio market. First of all they have more choice in terms of product availability. Hytera's extensive product range covers analogue, licence free and digital radio products based on DMR and TETRA standards. Secondly, because of Hytera's strategic decision to supply products with high price to performance ratios, customers are deriving more value out of these products than from those offered by rival firms. Hytera's products are not the best, nor are they the most inexpensive but they are the most cost-effective delivering additional value to customers.

7.6. Vanceinfo

7.6.1. Vanceinfo overview

Vanceinfo was established in 1995 and its headquarters are located in Beijing. Six years later the company began to internationalise its activities. In 2001 it opened offices in Tokyo and Silicon Valley and established a subsidiary in Atlanta, Georgia in the US in 2005. Having successfully grown the business, Vanceinfo was ranked as the number one Chinese software outsourcing company for North America and

Europe by IDC in 2007 (Pactera 2013b). In the same year it was listed on the New York Stock Exchange.

The company continued to internationalise by setting up its first European office in London in 2009 followed by an Australian office in Melbourne in 2010. In 2012 Vanceinfo merged with its biggest competitor, hiSoft to form Pactera Technology International Limited (Pactera 2013b). Research into Vanceinfo was undertaken prior to the merger in November 2012 therefore presented data refers to events preceding the merger. The company will be referred to as "Vanceinfo" for the purpose of this thesis.

Vanceinfo offers a variety of IT services from simple to more complex. Localisation is one of the simpler services offered. It is the translation of software into different languages but also different character sets and user interfaces. The company also provides research and development, software development, testing, application development and mobile development services (Interviewee I1 2012). Other higher value added services include enterprise resource management, business process outsourcing and data capture (Interviewee I1 2012).

The company has a global client base spanning a range of industries including financial services, technology, telecommunications, travel and transportation, energy, life sciences, manufacturing, retail and distribution (Pactera 2013a). Vanceinfo had approximately 23,000 employees in 2012 (Interviewee I1 2012).

7.6.2. Vanceinfo's entry into the UK

Vanceinfo established an office in London in 2009 which is also the company's European headquarters. The office works with clients across Europe, not just the UK. They have one employee in Finland and one person in France, and their activities are coordinated by the London office. The business model is primarily to provide services from China while the role of employees based in Europe is to liaise with clients. Thus the number of Vanceinfo staff in Europe is relatively small when compared to those located in China.

7.6.3. Investment motives

The company's investment decision was primarily market-driven. It decided to set up a UK office because some of its existing clients were already there, but also because it wanted to "expand its customer base" (Interviewee I1 2012). Many of Vanceinfo's target customers are located in the UK including banks and other companies. Its entry into the UK was also part of fulfilling its overall strategy to become a global company. This is difficult to achieve "if you don't have a presence in Europe and the UK" (Interviewee I1 2012). The use of the English language and ease of doing business in the UK influenced Vanceinfo's decision to set up its European headquarters in London.

7.6.4. Investment challenges

Vanceinfo's first attempt to establish a UK presence was unsuccessful because they did not understand what was needed to launch into an international market (Interviewee I1 2012). They sent an individual from China with no sales training, no contacts and limited English capability. Consequently Vanceinfo did not achieve the desired outcome and needed to change its approach.

Visa requirements for Chinese nationals pose a real problem from a business point of view. Vanceinfo finds it difficult to get Chinese employees into the UK because of this. Their stays are usually short-term which hinders knowledge transfer from China to the UK. "There is often a need for employees to be present because of language and cultural barriers which make communication over the internet or telephone difficult" (Interviewee I1 2012). Even if employees from China are granted short stay visas for the UK, the next problem is that they cannot travel to Spain or France unless they are granted additional visas to enter these countries. Though these travel restrictions pose administrative challenges they also have more serious implications. Namely they hinder "knowledge transfer from headquarters in China to the UK in terms of processes, technology, knowledge of the company and its company culture" (Interviewee I1 2012). This is causing the UK office to be isolated from its headquarters because employees from China are unable to travel freely.

The language barrier is sometimes an issue especially since much of the information from headquarters is in Chinese. This is probably the biggest cultural issue because of the misunderstandings it causes. There are also some organisational differences when it comes to decision-making or hierarchy. "Decisions are very consensus driven and take quite a long time, while hierarchy is respected more" (Interviewee I1 2012). Although the organisational differences can be challenging at times, they do not pose a serious threat because of Vanceinfo's overall westernised approach to management.

7.6.5. Investment effects

Presently Vanceinfo's total market effect in the UK "is very little" (Interviewee I1 2012). The outsourcing market is large and there are some established players from mainly two regions, India and Eastern Europe (including Bulgaria, Romania, Lithuania and Czech Republic). Competition from India is especially strong and it is dominated by large players such as Infosys, Wipro, Cognizant etc. These companies are very established in the UK outsourcing market and Vanceinfo's objective as a newcomer is to make an impression.

It is currently working on making people aware that China is a valid IT outsourcing destination. Vanceinfo is also trying to break down existing stereotypes about Chinese companies e.g. low cost, poor quality products or services. In practice potential UK clients still have concerns about IP protection, English language skills and the political system in China. "These are the top three things constantly being brought up" (Interviewee I1 2012). Thus Vanceinfo needs to be able to compete with established players and to break down stereotypes about Chinese companies before it can have a noticeable effect on the UK IT outsourcing market.

7.7. Concluding remarks

This chapter has examined the cases of Changan, Weigao, Mindray, TP Link, Hytera and Vanceinfo in the UK. It provides an overview of each company and pays particular attention to their reasons for investment, the way in which they chose to enter the UK market and the effects of their investments. Chapter seven is the final case study chapter and it is followed by a discussion of the research findings.

8. Discussion

Having presented evidence from the case studies in the previous four chapters, this chapter discusses the research findings relating to the extent to which the investment motives and investment modes displayed by the Chinese MNEs influenced the effects of their investments on British business partners. First the chapter introduces the conceptual framework underpinning this research. It then discusses the diversity of Chinese investment motives and their influence on investment modes. Next the chapter shows how these motives were achieved through analysis of investment modes and the challenges that were encountered. Finally the effects of Chinese investment on British business partners are examined. These findings are discussed in the context of existing internationalisation theories and empirical studies.

8.1. Conceptual framework

This research is underpinned by a conceptual framework developed on the basis of links that exist between the investment motives, modes and effects of Chinese multinationals.

The theoretical contribution of this research is that it provides a more complete explanation of the internationalisation of Chinese multinationals than existing theories. Unlike the others it takes into account the diversity that exists amongst Chinese firms. This study explains the internationalisation behaviour of firms that have developed sufficient strategic advantages to compete globally. But it is also capable of explaining the internationalisation of firms that do not possess such advantages.

Whilst Dunning's OLI theory provides a sound explanation of firm internationalisation, its limitation is that it does not account for the possibility of firms without ownership advantages internationalising. According to Dunning internationalisation occurs when firms have sufficient ownership advantages (Ownership), when the host country has locational advantages that cannot be found in the home country (Location), and when it is more economical for the company to enter overseas markets itself rather than engaging third party organisations (Internalisation) (Dunning 1993).

Following Dunning's logic, if any of the three factors of the OLI paradigm are missing, firm internationalisation will not occur. Thus companies lacking ownership advantages are unlikely to internationalise. The necessity of having such advantages is echoed by Rugman who refers to them as firm-specific advantages (Rugman 2007). The limitations of the OLI paradigm are exposed by this research which shows that Chinese firms are in fact capable of internationalising despite their lack of ownership or firm-specific advantages.

On the other hand Mathews' LLL framework offers a convincing explanation of firm internationalisation based on the lack of ownership advantages. However the problem with his explanation is that it does not consider firms that already possess strong competitive advantages. According to the LLL framework developed by Mathews, firms from emerging markets internationalise in order to link up with developed country multinationals. These relationships provide emerging market multinationals with learning opportunities so that they can develop their own competitive advantages (Mathews 2006b).

The underlying assumption of Mathews' thinking is that emerging market multinationals inherently lack strategic assets and that their entry into overseas markets is motivated by the acquisition of such assets. This point of view is reinforced by other researchers (Guillen, Garcia-Canal 2009, Luo, Tung 2007) who propose that emerging market multinationals are unlikely to have sufficient competitive advantages. The weakness of this approach is exposed by the findings of this study which shows that some Chinese multinationals possess strong competitive advantages which enable them to internationalise.

Despite their merits the OLI and LLL frameworks offer partial explanations of the internationalisation of Chinese firms. The former provides a sound explanation of firms which already have sufficient competitive advantages, while the latter offers a convincing account of firms without such advantages. The theoretical contribution of this research is that it is capable of explaining the internationalisation behaviour of both types of Chinese firms. This is achieved through the synthesis of the OLI and LLL frameworks to provide a more comprehensive explanation of their internationalisation behaviour.

There is a close link between investment motivations and the type of entry mode chosen when these companies internationalise. Empirical evidence suggests that investment motivations play a significant role in determining the type of entry mode selected by Chinese multinationals when investing overseas (Cui, Jiang 2009, Deng 2007). Hence this research is based on the assumption that different investment motivations are likely to lead to different entry mode choices, which in turn, influence the host country in different ways.

Many existing studies look into the investment effects of investing multinationals on host economies but most focus on western multinationals and their investment effects in developing economies. For example numerous studies examine the effects of FDI on domestic enterprises in China by investigating voluntary and involuntary diffusion of knowledge from foreign MNEs to local firms. The literature on involuntary knowledge transfer or spillovers shows that the presence of foreign MNEs affects productivity and market access in domestic firms (Buckley, Clegg & Wang 2002, Chuang, Lin 1999, Guo, Veugelers 2006). Meanwhile the literature on voluntary knowledge transfer shows that valuable knowledge is transferred from foreign MNEs to domestic firms through technological (Fang et al. 2002) and supplier relationships (Duanmu, Fai 2007, Guerrieri, Iammarino & Pietrobelli 2001, Ivarsson, Alvstam 2009, Ivarsson, Alvstam 2011).

However when it comes to the availability of similar studies focusing on the effects of emerging market multinationals on advanced host economies, the situation is rather different. Few studies are available, especially those investigating the effects of Chinese FDI. Most of the studies examine the general economic implications of FDI from emerging markets. Existing research emphasises financial effects (Hanemann, Rosen 2012, Tiwari, Herstatt 2009, Charlie 2012), employment effects (Hanemann, Rosen 2012, Xu, Petersen & Wang 2012, Nicolas 2012), competitive effects (Milelli, Hay & Shi 2010) and consumer welfare (Pradhan 2007, Charlie 2012, Greene 2007). One study investigates the effects of Chinese investment in European Union (Clegg, Voss 2012) using aggregate data and is therefore able to draw only general conclusions.

Emerging literature is beginning to shape our understanding of the ways in which acquisitions by Chinese firms influence acquired companies in Europe. So far

studies have explored the effects on French (Nicolas 2012) and German firms (Knoerich 2010, Gentile-Ludecke 2013) but none have explored the effects on British businesses.

The lack of availability of studies on the effects of Chinese investment on advanced economies leads us to the second contribution of this thesis. It is to provide detailed insight into the investment effects of Chinese enterprises in the UK through the use of firm-level data from greenfield investments and acquisitions. In so doing this thesis contributes to the literature on the internationalisation of emerging multinationals and in particular the effects of their investments on advanced economies. This is achieved by examining the extent to which the investment motives and investment modes of Chinese MNEs influence the effects of their investments on business partners in Britain.

The aim of this study is accomplished through the realisation of three research objectives outlined in the introductory chapter which are to: examine the investment motives of Chinese multinationals; to understand their investment motives and the challenges encountered; and to identify the effects of these investments on acquired firms, competitors, partner organisations and customers. The next section discusses the findings relating to investment motives, in line with the first objective.

8.2. Investment motives

This section examines the investment motives of Chinese MNEs in the UK and discusses the findings in the context of existing empirical studies and theoretical approaches.

Despite the theoretical assumptions that MNEs invest abroad either to exploit (Dunning 1993, Rugman 2008a) or acquire (Guillen, Garcia-Canal 2009, Luo, Tung 2007, Mathews 2006b) competitive advantages, empirical studies show that Chinese MNEs are not confined to either of these categories and display a range of asset-seeking and asset-exploiting investment motives. Some studies show that these enterprises are motivated by access to natural resources, strategic assets

and international markets (Liu, Buck 2009, Teagarden, Cai 2009, Buckley et al. 2008), while others highlight motivations such as efficiency gains (Athreye, Kapur 2009) and diversification (Deng 2003, 2004).

In spite of their diversity, the investment motives displayed by Chinese MNEs appear to follow a geographical pattern. Researchers have found that they have different motives when investing in developed and developing countries (Cheung, Suny 2009). According to previous research Chinese investment activities in developed countries are motivated by market access and strategic assets (Kolstad, Wiig 2012, Makino, Lau & Yeh 2002), while those in developing countries are motivated by access to natural resources (Kolstad, Wiig 2012) and efficiency gains (Makino, Lau & Yeh 2002).

When it comes to investing in Europe most researchers agree that Chinese MNEs are primarily motivated by access to markets and strategic assets (Knoerich 2012, Milelli, Hay & Shi 2010, Schuller-Zhou, Schuller & Brod 2012). Similar findings exist for their investment activities in the UK which emphasise access to markets and strategic assets as key drivers (Liu, Tian 2008, Cross, Voss 2007).

The evidence of this research shows that Chinese MNEs are not confined to either asset-seeking or asset-exploiting motives as existing internationalisation theories suggest. Instead the findings illustrate that their investments are motivated by a combination of the two. This fits in with existing empirical findings that Chinese MNEs in Europe and the UK are primarily motivated by access to markets and strategic assets.

Out of the nine MNEs included in this study, four lacked competitive assets and were therefore interested in acquiring them in the UK, while five had existing competitive assets which they were interested in exploiting. The figure below categorises the case studies according to their investment motives:

Table 12 - Case studies categorised according to investment motives

Asset-seeking	Asset-exploiting
• SAIC • CQME • Zhuzhou CSR Times • Changan	• Mindray • Hytera • TP Link • Weigao • Vanceinfo

Source: author's database

The asset-seeking group lacked competitive assets and the multinationals in this group were motivated to invest in the UK for the purpose of acquiring them. They were interested in obtaining strategic assets such as technology, know-how and brands. SAIC was attracted by well-known brands, vehicle blueprints and automotive design and development capabilities; CQME was drawn to manufacturing technology, innovation capabilities and brands; Zhuzhou CSR Times was interested in advanced semiconductor technology and strong R&D capability; while Changan was attracted to powertrain expertise.

The asset-exploiting group, on the other hand, already had competitive assets and the multinationals in this group were motivated to invest in the UK in order to exploit them. They were interested in accessing the UK market and increasing their sales. Mindray, Hytera, TP Link and Weigao already had a full range of state-of-the-art products they wished to distribute in the UK while Vanceinfo had the capability to offer its services to UK-based clients. These companies carried out a number of activities intended to increase their market share in the UK including new product development, product customisation, market research, experiential learning and reputation building.

This research illustrates the diversity of investment motives amongst Chinese multinationals. Enterprises lacking competitive advantages were interested in obtaining them, while enterprises that already had sufficient competitive advantages were interested in exploiting them. These findings contradict existing mainstream theories on internationalisation which assume that multinationals invest abroad to either explore or to exploit competitive advantages. Having

discussed the diversity of investment motives displayed by Chinese MNEs, the next section examines how these motives were achieved.

8.3. Investment modes

This section provides an in-depth examination of investment modes employed by Chinese MNEs in the UK. It discusses the relationship between investment motives and investment modes and demonstrates how different investment modes were used to achieve the multinationals' aims.

Existing studies suggest that investment mode selection in Chinese MNEs is influenced by a number of factors. Some have found that the choice of entry mode in Chinese MNEs is determined by a combination of external factors over which the companies have no control, and internal factors which arise from the firms. External factors identified include host country demand and host country competition, while internal factors include the company's asset-seeking strategy and global strategic motivation (Cui, Jiang 2009). Others emphasise the influence of country risk, cultural distance (Xu, Hu & Fan 2011) and investment motives (Deng 2007).

While existing studies identify a number of possible determinants, the evidence of this research suggests that investment mode selection in Chinese MNEs is largely influenced by investment motives. The asset-seeking multinationals selected primarily acquisitions, while asset-exploiting companies opted for greenfield investment. This finding supports Deng's argument that investment motives play a significant role in investment mode selection amongst Chinese MNEs.
Existing literature identifies the investment modes used by Chinese MNEs. When investing overseas they tend to enter foreign markets mainly via greenfield investment and mergers and acquisitions (Child, Rodrigues 2005). When it comes to investments in Europe extant research shows that the same two investment modes are most frequently used (Klossek, Linke & Nippa 2012). However some researchers have found mergers and acquisitions to be the preferred investment mode over greenfield investments in this region (Hanemann, Rosen 2012, Clegg, Voss 2012). Studies focusing on the UK have similar findings in that mergers and acquisitions and greenfield investments are shown to be the most frequent modes

of investment deployed by Chinese MNEs (Burghart, Rossi 2009). One study shows that greenfield investments take precedence over mergers and acquisitions in the UK (Liu, Tian 2008).

Although existing research usefully identifies Chinese investment modes, its shortcoming is that it does not explain how these investment modes are used to achieve the MNEs' aims. This research extends existing literature on Chinese investment modes by explaining how Chinese multinationals used selected investment modes to achieve their aims. Asset-seeking MNEs entered the UK mainly through acquisitions, while asset-exploiting MNEs used greenfield investment.

Asset-seeking multinationals

This group of multinationals predominantly used acquisitions to enter the UK market because it was the most effective way of accessing strategic assets such as brands, technology and know-how.

As part of the acquisition arrangement the Chinese MNEs gained access to brands and technologies. For example SAIC acquired the "MG brand" and designs for two vehicles from MG Rover; CQME obtained the "Holroyd" brand and advanced manufacturing technology from PTG; while Zhuzhou CSR Times acquired advanced semiconductor technology from Dynex.

The acquisition of existing businesses also enabled the Chinese MNEs to access know-how. They achieved this through recruitment of local talents and collaboration with British businesses and universities. SAIC, CQME and Zhuzhou CSR Times were all keen to tap into the knowledge of experienced local employees. Initially, SAIC recruited approximately 60 former MG Rover engineers with experience in vehicle design and development (Interviewee A2 2012). The company continued to recruit and currently employs around 200 British engineers who are supporting the design and development of new vehicles (Interviewee A4 2012). CQME's acquisition of PTG secured access to hundreds of highly skilled and experienced employees. According to figures from 2012 PTG had 220 local employees that year (Bannan 2012). Zhuzhou CSR Times' acquisition of Dynex meant that it gained immediate access to 200 existing employees. Following the

acquisition Dynex recruited a further 100 local engineers to support its R&D efforts (Interviewee C1 2012).

By acquiring British businesses Chinese MNEs were able to take advantage of relationships these businesses had developed with local universities over the years. For instance Dynex had established links with Lincoln College (Dynex Semiconductor 2012c) and had been involved in collaborative R&D projects with the universities of Durham and Warwick in the past (The Engineer 2007).

In addition the Chinese investors used their newly acquired business units in Britain to develop new collaborations with other universities. For instance SAIC's UK technical centre has ongoing research projects with the universities of Coventry, Birmingham, Warwick, Loughborough, Cranfield, Brunel, Imperial College London and Cambridge (Interviewee A1 2012, Interviewee A5 2012, Interviewee A3 2012). Meanwhile PTG has research and development collaborations with the universities of Huddersfield, John Moores and Cranfield (Interviewee B1 2012).

The acquisition of British businesses enabled the Chinese multinationals to access know-how from external organisations in the wider business environment. For example SAIC was interested in developing technology with specialised consultancies such as Ricardo, FEV and AVL (Interviewee A3 2012). It made use of Ricardo's powertrain expertise to develop new energy components for the Chinese market. One of the recent outcomes of the SAIC-Ricardo partnership was the joint development of a hybrid gearbox (Interviewee A1 2012).

CQME gained know-how from external partners through its newly acquired British business unit, PTG. This was particularly relevant when it came to technology in which PTG did not have experience. An example of this is a three-way collaborative project between CHMTI, PTG and an external British consultancy to develop a new machine for the Chinese market. The consultants were brought in because of their knowledge of Siemens software with which neither PTG nor CHMTI engineers were familiar (Interviewee B1 2012).

Zhuzhou CSR Times accessed expertise embedded in the semiconductor sector through its ownership of Dynex. Dynex took part in two industry-university collaborations involving British universities and businesses (Wilson 2007). The first project was a partnership between two universities and two high technology companies, Areva T&D and Semefab to develop ultra high power thyristor switches. Meanwhile the second project was a partnership between two universities and two high technology companies, Converteam and Dudley Associates for the purpose of building high power density transistor modules.

For asset-seeking companies SAIC, CQME and Zhuzhou CSR Times, the acquisition of existing businesses was the most effective way of accessing brands, technology and know-how. However, the fourth asset-seeking Chinese multinational, Changan, had a different approach towards accessing the assets it needed. Although the company had asset-seeking motives, it operated slightly differently from the other three investors. Namely Changan was not interested in obtaining established brands or technology developed by other organisations. Its primary aim was to tap into advanced know-how embedded in the UK automotive industry. So instead of acquiring an existing business like the others, Changan set up a greenfield site. It established a research and development centre through which it could develop partnerships with local organisations.

Similar to SAIC, CQME and Zhuzhou CSR Times, Changan accessed know-how through collaborations with British businesses and universities. Changan was attracted by the prospect of collaborating with leading edge automotive consultancies based in the Midlands region. Organisations such as Ricardo, Mahle and MIRA were of particular significance because of Changan's interest in powertrain technologies. Changan is currently working with a locally-based company called GNW which specialises in making prototypes (Interviewee D1 2011).

Changan was quite proactive in forming links with British universities. As part of its investment decision Changan undertook comprehensive research into universities located in the Midlands region with strengths in automotive R&D. The company was particularly interested in powertrain R&D capabilities held by the universities of Birmingham, Nottingham and Loughborough (Interviewee D1 2011). Changan

has established contact with Leicester, Derby and Coventry universities and is planning to further expand its university collaborations.

The evidence provided shows how Chinese asset-seeking investors used mainly acquisitions, and in one case greenfield investment, to gain access to brands, technology and know-how needed to increase their competitiveness.
In contrast the following section shows how the asset-exploiting investors achieved their aims through greenfield investments.

Asset-exploiting multinationals

This group of multinationals entered the UK by setting up greenfield sites because it was the most effective way of achieving their key aim – to increase sales in this market. Mindray, Hytera, TP Link, Weigao and Vanceinfo established offices to carry out research, learning, reputation building, new product development and product customisation.

One of the advantages of having a UK subsidiary is that it enabled the companies to conduct market research using local resources. For example Weigao undertook market research in collaboration with Essex Business School to develop an understanding of Chinese business in the UK and Europe (Interviewee E1 2012).The business school also provided research and consultancy services in order to assist Weigao with identifying and implementing a suitable internationalisation strategy. The use of local research organisations enabled the company to access local knowledge and experience which would not have been possible if Weigao had been undertaking market research in China.

Having a UK office enabled the companies to gain in-depth knowledge of the UK market. It provided an opportunity to serve sophisticated markets and highly demanding customers in their respective industries (Interviewee F1 2012, Interviewee H1 2012). For example Mindray had the opportunity to learn from the sophistication of the UK healthcare system and the high procurement standards of the NHS, while Hytera learned from the high expectations set by professional mobile radio users. These development opportunities not only improved the multinationals' chances of increasing their sales in the UK, but also enhanced their prospects of succeeding in other developed markets.

Another advantage of having a UK office was that it enabled the Chinese MNEs to strengthen their image as global players. Hytera perceived that the company's UK success would provide a valuable reference for doing well in other advanced markets (Interviewee H1 2012). While for Vanceinfo having a UK subsidiary was a question of image. In their view it is difficult to become a global company without having a presence in Europe or the UK (Interviewee I1 2012). Compared to their global rivals the Chinese MNEs are not well-known in advanced markets. In order to succeed in the UK and elsewhere it is important that they raise their brand profiles and develop reputations as multinationals with a global presence.

Greenfield sites made it possible for some of the investors to develop new products for the UK market. Weigao is one such example. It is currently collaborating with partners in the UK to develop new products for the local market (Interviewee E1 2012). Although it has considerable R&D capacity in China, Weigao is taking advantage of R&D partners in the UK who already have experience in developing single-use medical devices for the local market.

The multinationals are using their UK bases to offer customised products to the local customer base. The levels of customisation range from low to high across the organisations. For example TP Link uses its UK office to supply products with different plugs (Interviewee G1 2012) while Mindray delivers medical devices adjusted according to specific customer requirements (Interviewee F1 2012). Having a UK office allows Mindray's experts to work closely with customers to understand their needs and deliver highly customised products and services. Similarly Vanceinfo is able to maintain contact with its clients on a regular basis (Interviewee I1 2012). Software development requires close collaboration with customers because each solution is highly customised and in many cases unique to certain clients.

Hytera is also able to offer customised solutions because it has a UK subsidiary. Its products are customised in collaboration with local application developers and system integrators (Interviewee H1 2012). Having a local base ensures that Hytera is close to both its customers and partners. Similarly Weigao is undertaking product customisation for the UK market in collaboration with local partners. Some of their products especially catheters and orthopaedic equipment tend to differ in

sizes depending on the market they are intended for. Weigao's UK subsidiary is currently working with British partners to develop products according to local requirements (Interviewee E1 2012).

The evidence provided illustrates how Chinese asset-exploiting investors made of use their greenfield sites to achieve their aims. Their UK bases enabled them to undertake a series of activities designed to increase sales in the UK. These activities included research, learning, reputation-building, product customisation and new product development.

Having investigated their investment motives and use of investment modes, the following section examines the challenges encountered by Chinese multinationals as they pursued their objectives.

8.4. Challenges encountered

So far this research has argued that the investment motives of Chinese MNEs determined their choice of investment modes. Thus asset-seeking investors selected mainly acquisitions, while asset-exploiting investors selected greenfield investment. This section identifies the challenges encountered by the Chinese investors as they pursued their investment objectives. It shows that the two types of investors encountered different investment challenges in the UK, with the exception of one challenge which was common to both.

The issue of UK immigration regulations affected both greenfield investors and those that acquired British companies, making it difficult for Chinese nationals to visit their UK subsidiaries. The procedure for obtaining UK visas was costly and time-consuming for Chinese nationals whose applications for business visits were not always approved.

The inability of Chinese nationals to travel freely to the UK for business purposes was disruptive for acquiring companies such as SAIC, CQME and Zhuzhou CSR Times. Their interest in accessing know-how from the UK was hampered because of the inability of Chinese employees to travel when required. This was especially

relevant in situations where experts from the Chinese parent company needed to be physically present in the UK in order to learn a new technique or process.

UK immigration regulations also had a negative effect on greenfield investors such as TP Link and Vanceinfo that were not focused on the acquisition of strategic assets. For Vanceinfo the travel restrictions for Chinese nationals made knowledge transfer from the parent company to the UK subsidiary quite difficult (Interviewee I1 2012). The difficulties in transferring technology, processes and company culture led to the isolation of the UK subsidiary from its parent company in China.

Other challenges that emerged from the case studies were found to be specific to either greenfield investments or acquisitions. Companies that acquired British businesses encountered cultural and organisational challenges, while greenfield investors faced issues relating to their newcomer status, local knowledge and technical standards.

8.4.1. Challenges arising from acquisitions

Multinationals that invested via acquisitions encountered cultural and organisational challenges. Existing literature suggests that cultural differences can have a negative effect on the international activities of MNEs. Research in the area of knowledge transfer shows how cultural differences can be an impediment to knowledge sharing across organisations. For example research on inter-organisational knowledge transfer in joint ventures finds that cultural differences between international JV partners may hinder knowledge sharing (Buckley, Casson 1996, Hanvanich et al. 2005, Lyles, Salk 1996). Some highlight that cultural differences negatively affect the longevity of strategic alliances (Parkhe 1991), while others have found cultural distance to be a frequent cause of misunderstanding between individuals (Bresman, Birkinshaw & Nobel 1999).

Studies on intra-organisational knowledge transfer have been equally insightful in further highlighting the problems caused by cultural differences. One such study illustrates that knowledge transfer is likely to be constrained when subsidiaries

with different cultural dynamics are involved. Conversely it showed that knowledge transfer is likely to be successful if subsidiaries are culturally aligned (Lucas 2006). While existing literature highlights the various contexts in which cultural differences can be a hindrance, this research suggests that cultural differences can impede Chinese multinationals from accomplishing their investment objectives. MNEs investing via acquisitions encountered cultural challenges relating to face, trust and language which made collaboration between British and Chinese colleagues difficult.

Face

The notion of face in Chinese culture was a source of misunderstanding between Chinese and British colleagues which sometimes made collaboration difficult. Though the concept of face forms an intrinsic part of Chinese business culture, it does not exist in British culture and is therefore a relatively unfamiliar concept to British employees. The issue of face usually surfaced when there was a work-related problem that Chinese employees were aware of and were reluctant to inform their British colleagues about for fear of losing face. Not understanding that this was actually a question of 'saving face', the British employees misinterpreted the actions of their Chinese colleagues.

For example this occurred at SAIC when Chinese engineers were reluctant to discuss a problem openly with their British colleagues (Interviewee A5 2012). From a Chinese point of view this would reveal the cause of the problem which could potentially result in loss of face. In a similar situation at CQME Chinese engineers had not completed a task on time and were unwilling to disclose this to their British colleagues in order to preserve face (Interviewee B1 2012). This incident caused embarrassment for the Chinese engineers and frustration for the British once the truth came to light.

Trust

Given the importance of trust in Chinese culture, building trust has been an important aspect of establishing strong relationships between Chinese and British colleagues. Evidence from SAIC shows that British engineers who travelled to China frequently and invested time in getting to know their Chinese colleagues were likely to develop trust and good relationships (guanxi) (Interviewee A2 2012).

They tended to be well integrated into the business and appeared to maintain very good communication with their Chinese co-workers once they were back in the UK. On the other hand, British engineers who did not travel to China as much did not have the opportunity to build trust and strong relationships with their Chinese colleagues (Interviewee A2 2012). Having only worked together remotely they did not know each other and there was a lack of trust which precluded open communication and effective collaboration.

Language

Communication proved to be a challenge for Chinese investors in Britain because of the language differences between Chinese and British employees. Most British employees did not speak Chinese whilst their Chinese colleagues spoke English with varying degrees of proficiency. The lack of common language made everyday communication and collaboration challenging. For example when CQME engineers visited PTG their levels of engagement were low because of the language barrier (Interviewee B1 2012). The situation was similar at SAIC where British engineers made an effort to learn Chinese but their skills were insufficient for everyday communication (Interviewee A7 2012). When they worked on projects with Chinese colleagues with weak English language skills communication was difficult.

Cultural issues such as face, trust and language were more likely to surface in acquisitions because of the nature of this investment model which involves the merging of two distinctly different organisations. Employees in companies such as Dynex and PTG were accustomed to British business culture and were compelled to adapt to Chinese business culture once they were taken over by multinationals from China. Cultural expectations differed significantly in the new environment compared to what they were previously used to.

Chinese greenfield investors, on the other hand, were unlikely to experience the same cultural challenges experienced by acquiring multinationals. Greenfield investors were not tasked with integrating two organisations. They developed their own subsidiaries in the UK and had the flexibility to recruit new employees who fitted in with their corporate and national culture. These companies did not acquire large groups of employees who may not be compatible with the values and

practices of the parent companies. In short low levels of cultural divergence within greenfield business units enabled these investors to minimise the effects of cultural challenges.

The cultural issues arising out of acquisitions may also have been influenced by the ownership structure of the investing MNEs. Namely SAIC, CQME and Zhuzhou CSR Times were all traditional state-owned enterprises. Their management practices and business cultures differ significantly from the British companies they acquired. Thus merging the two could have been difficult because of how different their corporate cultures are. In contrast the Chinese greenfield investors are smaller, private and more modern enterprises. Their employees are on average relatively young and flexible. In fact their corporate culture was not very different from that of companies in Britain, which is why they were perhaps not affected by cultural differences as profoundly as the SOEs.

Aside from cultural challenges, MNEs investing via acquisitions encountered organisational challenges relating to hierarchy, management practice and bureaucracy which posed difficulties for the integration of Chinese and British organisations.

Hierarchy

British and Chinese employees had different expectations when it came to organisational hierarchy. Chinese organisations, especially state-owned enterprises like CQME and SAIC, were quite hierarchical and their employees were accustomed to seeking approval even for minor decisions. For example at SAIC the process of starting a new project took weeks because it needed to be approved at several higher levels (Interviewee A5 2012). Decision-making occurred at managerial levels whereby employees were expected to follow instructions and did not have much influence over decisions (Interviewee A4 2012, Interviewee A3 2012).

The expectation was very different in British organisations where hierarchy was not as significant. Employees were not expected to seek approval for every decision and were generally more empowered to make some decisions themselves. They were encouraged to voice their opinions and participate in

decision-making regardless of their position in the company's organisational structure. For example it would be acceptable for a British engineer to discuss a new strategic idea directly with the CEO. These differences could be a major source of frustration and misunderstanding in situations where Chinese investors are new to managing British employees that are used to less rigid hierarchies and more empowerment in the decision-making process.

Management practice

Significant differences in management practice were found between Chinese and British organisations. Traditional Chinese management was based on the issuing of instructions without much employee participation. For example the Chinese management at CQME had instructed PTG to increase its sales by 10% without providing opportunities to discuss whether or how this could be achieved (Interviewee B1 2012). British employees were used to a more participative style where they expected to be involved in discussions on target-setting and their views to be taken into consideration.

In Chinese organisations strategic decisions were made centrally and there was hardly any task delegation. Senior Chinese managers had the final say and they expected their decisions to be followed relentlessly. In contrast, British employees were used to playing a more prominent role in decision-making and expected decisions to be made by consensus. They expected managers to delegate tasks to a greater extent than their Chinese colleagues did. Like hierarchical differences, differences in management practice could also lead to difficulties when Chinese managers take a traditional approach towards managing British employees. From a British point of view these differences can lead to employees feeling undervalued, disempowered and consequently detached from the organisation and its strategic objectives.

Bureaucracy

Large Chinese state-owned enterprises tended to be more bureaucratic than British organisations which proved to be a source of frustration for British employees. They perceived vast amounts of paperwork and involved procedures to be unnecessary and felt their time could be used more constructively. For instance purchasing orders at SAIC involved lengthy procedures whereby

engineers had to obtain multiple signatures before a purchase could be authorised (Interviewee A3 2012). The same procedure applied to all purchases regardless of value which could be quite frustrating for employees ordering low value items. This was especially true for former MG Rover engineers who were previously authorised to order low value components without seeking approval whilst under British management.

These organisational differences turned into challenges when British companies like SAIC and PTG were taken over by Chinese multinationals. Employees were compelled to adjust to a more hierarchical system which excluded them from decision-making processes. Management decisions were made centrally and were expected to be followed. In addition they were also required to partake more often in lengthy bureaucratic procedures than before. It is inevitable that significant organisational differences such as these would lead to differences in opinion between British employees and Chinese management.

This research has shown that challenges arising from Chinese international acquisitions are likely to be caused by cultural and organisational divergence. Cultural differences relating to language, trust and the concept of face hindered inter-personal collaboration between Chinese and British employees. Organisational differences relating to hierarchy, bureaucracy and management practice generated friction between British employees and Chinese management.

Having investigated the challenges arising from Chinese international acquisitions the following section discusses the challenges experienced by greenfield investors.

8.4.2. Challenges arising from greenfield investments

Chinese greenfield investors encountered challenges relating to their status as newcomer organisations, local knowledge and technical standards which are discussed in this section.

Newcomer status

Greenfield investors encountered challenges because of their status as newcomers in the UK market. They found the market difficult to penetrate because of well-established competitors that already had a strong presence. Mindray faced tough competition in the medical device sector from companies like Philips Healthcare and General Electric Healthcare that had been in the market many years before Mindray's entry in 2006 (Interviewee F1 2012). Similarly Hytera faced high level competition in the professional mobile communications sector where it competed with market leaders such as Motorola that had been building credibility over the last 84 years (Interviewee H1 2012).

These companies had difficulties in penetrating the market because potential customers were unfamiliar with their names, brands and products. For example the NHS was identified as a potential key customer for Mindray. However most of the NHS's procurement staff had not heard of Mindray or its medical devices. Therefore the company had to invest significant time and effort in familiarising the NHS with its products and services. Hytera's entry into the professional mobile radio communications market was also challenged by the company's lack of credibility in the local market (Interviewee H1 2012).

As newcomers, some of the Chinese multinationals were not trusted by local customers. The IT outsourcing market, for example, is dominated by companies from India and Eastern Europe that are considered to be reliable outsourcing destinations. Most customers did not have experience in working with Chinese companies and did not perceive China to be a valid IT outsourcing destination. Some potential clients were sceptical about the quality of products and services provided by Chinese companies. They had concerns over intellectual property right protection, English language capability and the political system in China (Interviewee I1 2012).

Local knowledge

Although the MNEs were successful in China and in other international markets they lacked UK-specific knowledge. Some were unfamiliar with local business practices. For instance, TP Link's lack of knowledge of local accounting practices

meant that it had to engage a third party organisation to assist with its accounts (Interviewee G1 2012).

Others lacked knowledge about British market conditions. One company was unaware of the skills and competencies needed to enter the UK market and consequently its first attempt was unsuccessful (Interviewee I1 2012). In the first instance the company sent an executive from China with no sales training or local contacts and limited English language capability. Having learned about local market conditions from this experience the company's second entry attempt was more successful.

Although it had successfully launched a subsidiary in Germany, TP Link found that it did not have enough knowledge of how distribution channels are managed in the hardware market (Interviewee G1 2012). The UK has one of the most mature IT markets in the world and its distribution channels have a different structure from those in the Far East and mainland Europe which TP Link had experience in.

Technical standards

Some of the companies were confronted with technical barriers which placed them at a disadvantage in the host market. Hytera encountered this problem when it entered the UK professional mobile radio market which uses European encryption standards (Interviewee H1 2012). This technology is widely used by national armies and police forces across Europe and its use is restricted to European organisations in the interests of public security. Hytera needed to use the encryption technology in its products in order to compete effectively but was not permitted to do so because of its non-European origin.

The evidence of this research shows that the same challenges were not encountered by all of the MNEs examined. Although one challenge was common to all of the investors, each type of investment had its own set of challenges to contend with. Acquiring MNEs were challenged by issues relating to the integration of distinctly different organisations. They experienced a range of cultural and organisational challenges. On the other hand, greenfield investors were challenged by issues arising from independent entry into a new market. They

experienced issues relating to their newcomer status, lack of local knowledge and technical standards.

The previous two sections on investment modes (8.3) and challenges encountered (8.4) have demonstrated that the MNEs not only used different investment modes to achieve their aims, but that each investment mode carried its own specific set of challenges. The next section of this thesis discusses the effects of the Chinese MNEs on British business partners and the factors which influenced them.

8.5. Effects on British business partners

Some have argued that effects of Chinese FDI in Europe are insignificant because aggregate investment levels from China are relatively low (Milelli, Hay & Shi 2010, Clegg, Voss 2012). The same view has been put forward for individual European countries such as France (Nicolas 2012) and Germany (Xu, Petersen & Wang 2012) where investments from China remain modest. Others observe that we have not yet had a chance to consider the implications of Chinese FDI in Europe because it is still a new phenomenon (Milelli, Hay & Shi 2010). Their view is that a longer time lapse may be required before the effects can be fully grasped. Despite these observations the results of this research show that Chinese multinationals are significantly influencing British business partners. Moreover most of the findings are supported by existing empirical evidence.

So far this research has demonstrated the diversity of investment motives and their influence on the multinationals' choice of investment modes, whereas this section focuses on the effects of these investments. It shows that the effects of Chinese multinationals vary according to their investment motivations and investment modes. Thus companies motivated by access to strategic assets influenced different British business partners compared to market access-seeking ones.

8.5.1. Asset-seeking investors

This group consisted of four companies SAIC, CQME, Zhuzhou CSR Times and Changan. They all invested in the UK to acquire new assets but their use of different investment modes meant that they had diverse effects on the British

business sector. SAIC, CQME and Zhuzhou CSR Times chose to invest via acquisitions and the effects of their investments were concentrated on acquired companies and partner organisations they worked with. The acquired companies were affected in the following ways:

Access to capital

Prior to receiving investment from Chinese companies MG Rover, PTG and Dynex were in financial arrears to varying degrees. MG Rover was in the least favourable position. It had experienced a decade of financial difficulty culminating in liquidation before an investor could be found. PTG had a large debt and cash-flow problems (Interviewee B3 2012). Its business was negatively affected by the recession – orders had decreased and the company was compelled to make redundancies (Hibbert 2010). Meanwhile Dynex was facing a funding shortfall and consequently was not able to upgrade its manufacturing facilities as required (Liu 2013).

Once the companies received investment from China their financial positions improved significantly. MG Rover's legacy company SMTC UK was created on the back of funding from SAIC. It was established as SAIC's R&D arm and as such all its activities were funded by SAIC (Interviewee A1 2012). It is essentially a cost centre with no revenue generating capabilities of its own and is entirely financially dependent on its parent company. PTG's financial troubles came to an end when it was acquired by CQME. The financial resources provided by the Chinese investor improved PTG's operational performance and its finances (Interviewee B3 2012). Thanks to CQME's strong links to the Chinese banking industry it was able to expand PTG's credit limit which improved its cash-flow situation. Similarly Dynex's access to financial resources was improved by investment from Zhuzhou CSR Times which enabled the company to make improvements to its facilities (Interviewee C1 2012).

SAIC, CQME and Zhuzhou CSR Times received considerable investment from their Chinese parent companies. The investments in office buildings and manufacturing facilities reflect the Chinese investors' intentions to develop their UK subsidiaries for the long-term. SAIC refurbished the main office building at

SMTC's Longbridge site which houses most of its employees. It also expanded the assembly workshop and built a new design studio.

CQME has also been proactive about developing the facilities at PTG. The Chinese manufacturer has agreed to support PTG's relocation to a new site designed to enhance the company's facilities, production capacity and market image (Interviewee B1 2012). Similarly Zhuzhou CSR Times invested £30 million in Dynex to improve its facilities (Interviewee C1 2012). The Chinese parent company purchased the land and buildings used by Dynex and then built a new energy efficient building which was completed in 2012. It houses Dynex's R&D team, financial team, executive offices and conference rooms. Zhuzhou CSR Times also invested £12.5 million to upgrade Dynex's production line.

The positive financial effects on acquired British firms are consistent with existing research which suggests that firms from China and other emerging markets are an important source of capital for developed countries. Chinese acquisitions were instrumental to keeping French firms from going bankrupt (Nicolas 2012).

Meanwhile German companies were keen to be taken over by Chinese multinationals because of guaranteed access to capital (Gentile-Ludecke 2013). Capital injections from China (Hanemann, Rosen 2012) and India (Charlie 2012) were especially important to European countries during the economic crisis when FDI from traditional foreign investors was significantly reduced (Milelli, Hay & Shi 2010). Evidence suggests that Indian companies located in Germany intend to make further investments in the short to medium term (Tiwari, Herstatt 2009).

Employment

As a result of the investment from their parent companies SMTC UK, PTG and Dynex were able to maintain, and in some cases, increase their employee numbers. Following the closure of MG Rover 600-700 development engineers were made redundant (Interviewee A2 2012). SAIC's decision to develop an engineering centre in the UK led to the initial employment of 60 of them. As the business developed the number of employees increased to approximately 300 (Interviewee A1 2012). Many of SMTC's employees have permanent contracts

and SAIC is financing the company's pension scheme. A dedicated HR department has also been set up to ensure that employees receive necessary support from their employer (Interviewee A4 2012).

PTG had been in a precarious position prior to CQME's investment. It was owned by venture capitalists who were primarily interested in generating short-term profits (Interviewee B3 2012). They were not interested in developing PTG for the long-term which had implications for the company's employees. Their jobs depended on the decisions made by venture capitalists which meant that there was little job stability. However once CQME had acquired PTG, job stability increased substantially because of CQME's long-term plans for the company. PTG managed to retain all 220 of its employees because of CQME's investment (Bannan 2012). Similarly Dynex retained all 200 of its employees when Zhuzhou CSR Times bought a majority share in the company. Since then Dynex has recruited 100 new employees based on growing business needs (Interviewee C1 2012). So far the companies acquired by Chinese investors have managed to preserve, and in some cases, even increase employee numbers. Given the ambitions and expansionist tendencies displayed by the Chinese giants and the strategic roles played by their UK subsidiaries, there is likely to be a need for further recruitment in both China and the UK.

While some extant empirical evidence suggests that employments effects in Europe are modest or varied, most research shows that they are in fact positive which supports the findings of this study. The effects in France were mixed because some Chinese investments led to plant closures and job losses while others resulted in new jobs and plant expansion (Nicolas 2012). Employment effects in Germany appear to be low relative to other foreign investors. Estimates suggest that Chinese companies employed approximately 6,600 employees in 2010 while US companies employed approximately 741,000 during that year (Xu, Petersen & Wang 2012).

On the other hand other evidence suggests that Chinese companies have preserved and created new jobs in Europe. An estimated 428 Chinese greenfield projects created 15,000 new jobs in Europe between 2000 and 2011. Geely's acquisition of Volvo preserved 16,000 jobs and led to the creation of new jobs as a

result of its European-wide investment program. Meanwhile Beijing No.1 Machine Tools turned around Waldrich Coburg, a German machinery maker increasing employee numbers from 500 to 800 (Hanemann, Rosen 2012). Huawei created 2,000 jobs in its European subsidiaries, while COSCO created 800 (Milelli, Hay & Shi 2010).

Firms from other emerging markets such as India have also had positive employment effects in Europe. In Germany companies from India created more jobs than they lost (Tiwari, Herstatt 2009). Like the Chinese, Indian investors also preserved jobs and turned around troubled companies. For instance Tata's takeover of Jaguar Land Rover first led to several thousand job losses but once the company's position improved 8,000 new jobs were created (Charlie 2012).

Access to new markets

Being owned by large Chinese parent companies has provided SMTC UK, PTG and Dynex with access to the Chinese market and in some instances to other new markets. SMTC UK is dedicated to designing and developing new vehicles primarily for the Chinese market (Interviewee A2 2012, Interviewee A6 2012). The Chinese passenger car market is already very large, selling between 14-15 million cars in 2012 and it is likely to continue to grow. Although SMTC is based in the UK it is effectively part of the automotive growth model in China (Interviewee A2 2012). So far its engineers have been involved in three completely new products for the Chinese market (Interviewee A4 2012).

Since PTG was acquired by CQME there has been a noticeable drive towards expansion and sales (Interviewee B1 2012). From the beginning PTG was planned to have a leading {{449 Allcock,Andrew 2010}}role in the company's expansion into new markets (Allcock 2010). Its close relationship with CQME is likely to open up new market opportunities in China. For instance PTG Heavy Industries is breaking into the Chinese market having recently designed and developed a Powerstir friction-stir-welding machine for a Chinese company (Machinery Market 2013). It is also entering new markets such as Russia and the US.

Zhuzhou CSR Times' strong position in the railway construction industry in China has secured Dynex's route to this market (Interviewee C1 2012). There is fast-

growing demand for railway equipment in China and Dynex's IGBT modules are a key component of high speed trains. Since the acquisition Zhuzhou CSR Times has become Dynex's most significant customer accounting for one third of the company's total sales (Liu 2013). The Chinese parent company has also played a key role in distributing Dynex's products to a range of high tech companies across China.

Hosting Chinese investment in the UK is beneficial from the point of view that it encourages UK investment in China (Hanemann, Rosen 2012). But it also facilitates the market entry of small and medium-sized European firms into China (Clegg, Voss 2012). For instance German firms are in favour of being taken over by Chinese investors because of the prospect of expanding into the Chinese market with the support of the acquirer (Gentile-Ludecke 2013). The German companies can receive help in building relationships in China, understanding Chinese business culture, getting to know appropriate suppliers and resolving legal and administrative issues (Knoerich 2010).

R&D activity

The investments by SAIC, CQME and Zhuzhou CSR Times have enhanced R&D activity in acquired organisations. As a research and development centre, SMTC UK was established to generate intellectual property for SAIC. It carries out high end R&D work including vehicle design and development. The centre covers the whole creative journey of a car, system or component from concept to reality. It also undertakes testing of whole vehicles, systems or components. SMTC UK performs rapid prototyping and styling and is involved in quality management, safety testing and programme management (Interviewee A8 2012). The centre's design and development solutions are developed from a clean sheet of paper (Interviewee A2 2012).

SAIC's investment in R&D facilities will increase the centre's capacity for vehicle design and development. The UK design studio is currently being expanded. The value of the expansion is estimated at £1.5 million. The studio's size will be doubled and it will be equipped with a new visualisation suite, improved modelling facilities and a CNC (computer numerical control) five axis milling machine. Its

increased capacity will allow designers to work on a maximum of five full-size models at a time (Interviewee A5 2012).

PTG has continued to develop highly innovative products since having been acquired by the CQME Group. For example PTG introduced the Holroyd Zenith 400 helical profile grinder in 2011, the first of its kind to combine all three grinding wheel technologies (Albert 2011). PTG is also developing a new gear grinding machine for the Chinese market which makes commercial quality gears for passenger cars, vans and trucks (Interviewee B1 2012). CQME's intentions to develop PTG's existing Rochdale site into a high end R&D centre (Marsh 2012) suggest that PTG is likely to be heavily involved in R&D projects in the prospective future.

Dynex's capacity to conduct high end R&D is likely to be increased as a result of investment from Zhuzhou CSR Times. The parent company invested £1.8 million in a new R&D centre in Lincoln (Dynex Semiconductor 2012c) to meet growing demand for semiconductor products in China and other parts of the world. The new products and technologies will be developed for railway transportation, wind power, smart grids and electric cars (Dynex Semiconductor 2012c). The significant investment indicates the parent company's intent to increase Dynex's capacity for high end research for the benefit of the entire organisation.

There is evidence of R&D intensification across Europe as a result of Chinese investment. Companies like Haier, ZTE and Huawei have developed extensive R&D networks in Europe. Other smaller companies such as Goldwind, Beijing No.1 and Shenyang Machine Tools have set up R&D centres in Germany (Schuller, Meuer & Schuler-Zhou 2012). Multinationals from other emerging economies such as India are also keen to conduct R&D activities in Europe. Indian companies in Germany are engaged in R&D activities such as product development and plan to strengthen this type of activity in the future. Many of them already have collaborations with customers, suppliers, research institutions and other firms (Tiwari, Herstatt 2009). Given their low cost advantage Indian companies can help developed country firms to reduce costs by increasing the availability of funds for R&D activities (Pradhan 2007).

New skills and knowledge

By working closely with Chinese colleagues and developing products for the Chinese market SMTC UK, PTG and Dynex are gaining a great deal of insight into Chinese business culture and the Chinese market. Frequent interaction with Chinese engineers and managers in the UK and in China extends their knowledge of the way in which Chinese organisations work. At the same time their involvement in the development of new products is a good opportunity to learn about the tastes and preferences of the Chinese market. Knowledge of both Chinese business culture and the Chinese market is beneficial for the acquired companies whose business interests are now closely linked to China.

Similar evidence has emerged out of an empirical study of Chinese acquisitions in Germany which suggests that significant knowledge is being transferred from Chinese to German firms. In particular German companies are learning about Chinese culture, the significance of relationship building and how to problem-solve in the Chinese business environment (Knoerich 2010). In addition it has been suggested that Chinese firms may be transferring entrepreneurial business models through their investments in the EU (Clegg, Voss 2012).

Interestingly there is some evidence of technological knowledge transfer from China to Britain. This is observed in the interaction between Chinese and British engineers at SAIC. SAIC is investing substantial funds, skills and expertise into new energy power train technologies in China. It has set up a New Energy Power Train (NEPT) centre driven by CO2 emissions, electric vehicles and hybrid electric vehicles. Although British engineers based at SMTC UK had very limited experience of these technologies they supported the NEPT team in creating the vehicle environment. British engineers used conventional engineering skills while the Chinese engineers used their new energy power train skills (Interviewee A1 2012). The experience of working with the NEPT team in China enabled British engineers to develop their knowledge of powertrain technologies.

Although some research suggests that Chinese firms are not yet in a position to transfer superior technology to the UK (Clegg, Voss 2012), there is evidence to suggest that some technology is already being transferred from emerging market to developed country firms. Namely a study of Indian multinationals in Germany

suggests that there is active mutual technology transfer between India and Germany (Tiwari, Herstatt 2009). Emerging evidence of technology transfer from Germany and now from the UK indicates that emerging market firms may already possess or are in the process of developing technologies which could be beneficial to developed country firms.

Competitiveness

Dynex and PTG have become more competitive once they were acquired by Chinese multinationals. The examination of SMTC's competitiveness is not relevant at this point because it is not an independent business unit and effectively operates as SAIC's R&D centre. The competitiveness of Dynex and PTG has been enhanced because of some of the factors outlined above.

Access to capital has provided the companies with financial stability and the opportunity to upgrade their offices and manufacturing facilities. With the support of their new owners they expanded into China and other new markets. The Chinese desire for new technologies and substantial investment in R&D facilities led to increased R&D activity. The interaction with Chinese colleagues and businesses enhanced their knowledge of Chinese business culture, while the development of new products for China extended their knowledge of the Chinese market.

Together these changes have contributed towards increased competitiveness of British companies acquired by Chinese multinationals. Similar evidence has emerged from Germany and France suggesting that domestic companies became more competitive once they were acquired by Chinese multinationals (Nicolas 2012, Knoerich 2010).

Identity and autonomy

Companies such as PTG and Dynex remained relatively independent of their Chinese parent companies. CQME made a concerted effort to keep PTG independent because it wanted to preserve the company's market image as a British company. It pursues its business interests with little interference from CQME. Few changes were made at Dynex for the same reasons. Both companies have a largely British workforce with few Chinese managers based in the UK. For

instance only two Chinese individuals joined the senior management team at Dynex to head the sales and marketing and R&D departments.

This makes sense from a strategic point of view because, in both cases, the acquisitions were motivated by technology and knowledge. Both assets are created by and embedded in existing employees and therefore represented the most valuable aspects of the targeted companies. The retention of British staff and their managers was vital if the Chinese investors were to achieve their primary objective.

The situation with MG Rover's legacy is slightly different in that the company was initially set up as SAIC's outpost. Thus the British-based technical centre is more integrated with its parent company compared to PTG and Dynex. It has only four senior Chinese managers who lead the finance, HR, engineering and IT departments while the engineering workforce is predominantly British. The levels of autonomy are "different at different levels" (Interviewee A2 2012) but overall it seems that strategic direction comes from China while there is relatively more freedom when it comes to day to day activities.

Findings with regard to the autonomy and independence of British companies are supported by evidence from Germany. Namely German companies acquired by the Chinese were granted high levels of autonomy and independence (Knoerich 2010, Gentile-Ludecke 2013). The majority of employees were German including the managers who had full autonomy over day to day operations. The Chinese parent companies had significantly more involvement in strategic matters.

SAIC, CQME and Zhuzhou CSR Times also influenced the business activities of a range of British partner organisations. Their desire to develop new technologies led to the establishment of collaborative relationships with British universities and specialised consultancies. The Chinese multinationals generated new demand for knowledge-intensive services which were provided by these local organisations. PTG, for example, has research and development collaborations with the universities of Huddersfield, John Moores and Cranfield (Interviewee B1 2012). PTG also collaborates with local consultancies when it needs particular expertise that cannot be found within the organisation. For instance external consultants

were brought in when PTG was developing a new machine but did not have experience in certain software that was needed for the project (Interviewee B1 2012).

SAIC's UK technical centre has ongoing research projects with the universities of Coventry, Birmingham, Warwick, Loughborough, Cranfield, Brunel, Imperial College London and Cambridge (Interviewee A1 2012, Interviewee A5 2012, Interviewee A3 2012). The company is also interested in developing technology with specialised consultancies such as Ricardo, FEV and AVL (Interviewee A3 2012). It collaborated with Ricardo on new energy powertrain technologies (Interviewee A1 2012).

Dynex has links with several British universities including Nottingham, Loughborough and Warwick amongst others (Dynex Semiconductor 2012c). It has strong links with Lincoln College and is currently building a relationship with the newly established Engineering School at the University of Lincoln (Dynex Semiconductor 2012c). In the past Dynex has been involved in collaborative R&D projects with the universities of Durham and Warwick (The Engineer 2007). The company also collaborates with local knowledge-intensive consultancies. It took part in two industry-university collaborations involving British universities and businesses (Wilson 2007).

Similar to the other three Chinese multinationals, Changan invested in the UK to acquire new assets. However, its effect on British businesses was not the same because it employed a different investment mode. Unlike the other multinationals that used acquisitions, Changan set up a greenfield site. The effects of this type of investment were concentrated on partner organisations. Changan's investment had an effect on partner organisations including service providers, universities and automotive consultancies. Its presence represented a new source of revenue for local service providers. Changan engaged local companies to provide services that were not available at the Nottingham R&D centre because of limited facilities. The company used MIRA's testing facilities and GNW's prototyping services amongst others (Interviewee D1 2011).

Changan established relationships with local universities for the purpose of developing specific technologies. It was interested in forming R&D collaborations with the University of Birmingham because of its expertise in powertrain research, the University of Nottingham because of its skills in engine development and Loughborough University for its competencies in engine testing (Interviewee D1 2011). Although it already had some university links, Changan was keen to extend its collaborations to other universities in the region such as Leicester, Derby and Coventry. Changan formed links with British automotive consultancies also for the purpose of joint technological development. Reputable companies such as Ricardo, Cosworth and Mahle were of particular interest (Interviewee D1 2011).

Changan's tendency to establish technological collaborations with local universities and consultancies was beneficial because it stimulated high end, knowledge intensive projects within these organisations. This contributed towards the buoyancy of the British automotive R&D sector, ensuring that it stays at the leading edge of automotive technology through continuous knowledge generation.

This section demonstrates that not all asset-seeking investors had the same effects because of the different investment modes that were utilised. Both greenfield investors and those invested via acquisitions contributed towards the intensification of research and development activities in external partner organisations. However companies that invested via acquisition also had profound effects on the companies they acquired. The effects were largely positive and led to the development and growth of the target companies. Having examined the effects caused by asset-seeking investors, the following section discusses the effects of asset-exploiting investors.

8.5.2. Asset-exploiting investors

This group consisted of five companies Mindray, Hytera, TP Link, Weigao and Vanceinfo. These multinationals invested in the UK to exploit existing assets and the effects of their investments were concentrated on competitors, customers and partner organisations.

Competitors

The arrival of Chinese multinationals led to the intensification of competition in some sectors. For instance Hytera's entry into the DMR market meant that Motorola was no longer the sole manufacturer of these devices. Hytera heightened competition in the professional mobile radio sector when it became the second company in the world to supply devices using the DMR standard (Interviewee H1 2012). This market niche had been less competitive in the past because Motorola was the only supplier of DMR devices. In the medical device sector Mindray had put its competitors under pressure. This was reflected in some of their annual reports which described Hytera as a "big threat" (Interviewee F1 2012).

The Chinese computer network equipment company, TP Link had also intensified competition in its sector. The company's remarkably rapid growth in the UK caused its competitors' market share to decline. TP Link's UK revenue grew approximately 10 fold in the last three years at the expense of competitors such as D-Link and Edimax (Interviewee G1 2012). Two years ago D-Link, the Taiwanese network equipment supplier had been a strong player in the UK but today its presence is insignificant. Edimax, another Taiwanese company in this sector was doing quite well in the past but is currently generating hardly any business at all (Interviewee G1 2012).

The increasingly competitive environment created by Chinese companies caused its competitors to change their behaviour in a number of ways. Pressure from Hytera compelled its competitors to change their service policies, prices and to work more closely with customers (Interviewee H1 2012). In the medical device market Mindray's competitors have also had to amend their pricing policies and to carefully consider potential price increases (Interviewee F1 2012). In the past they would readily increase their prices but are no longer in this privileged position. Instead the companies have to compete on the basis of price by either matching or lowering their prices below Mindray's. The competitors have also introduced new products in order to compete with Mindray's offerings. For instance one competitor acquired a company in China, rebranded the products and introduced them into the European market (Interviewee F1 2012).

The competitive effects caused by the entry of Chinese multinationals have both a positive and a negative side. The benefit is that intensified competition compels rival firms to be more efficient by lowering their prices, offering better services or innovating more. On the other hand competitive pressure can also lead to the downfall of incumbent firms or even industries (Milelli, Hay & Shi 2010). These effects can be observed after TP Link's entry into the UK whereby two relatively successful competitors suffered significant loss of market share.

Customers

The entry of Chinese companies has provided UK customers with enhanced value, choice, innovation and customisation. These companies are providing customers with enhanced value by supplying high quality products and services that are competitively priced. For instance customers in the professional mobile radio industry can purchase Hytera's devices that have the highest price to performance ratio in the market (Interviewee H1 2012). The company does not offer the most technologically advanced products or the least expensive. Its market strategy is to provide the best possible products within a particular price range which directly benefits customers.

Mindray has also enhanced value for customers in the healthcare sector. Prior to the company's investment customers could choose between two to three suppliers all of which offered products at high prices. They offered to repair existing medical devices whereas Mindray offered to replace them for a slightly higher fee (Interviewee F1 2012). Mindray's offer represented better value for customers because they could have new machines for a similar price. This is especially relevant for the NHS which is actively pursuing a cost-cutting strategy while maintaining or improving levels of service. By purchasing medical machines from Mindray, the NHS can lower its costs without compromising on service because the devices are just as reliable as rival products.

TP Link has also brought additional value to customers in the computer networking equipment market. The company provides reliable, easy to use products at affordable prices. The products represent good value because customers are paying half the price for better products and services (Interviewee G1 2012). Unsurprisingly TP Link is already ranked number two in terms of UK market share

in the small office and home office segment. It is fast catching up with Netgear, the current marker leader (Interviewee G1 2012).

Their presence is also beneficial from the point of view of choice whereby customers are now in a position to choose from a larger pool of suppliers. In the past customers in the medical device market only had two to three suppliers to choose from. Their products were priced higher than Mindray's and once the customer opted for one supplier it would be difficult to switch to a different one because of staff training issues and the existence of a large number of machines made by the initial supplier (Interviewee F1 2012). Since Mindray's products have become available to UK customers they now have a new supplier to choose from. Instead of paying high prices for repairs they can choose to spend slightly more to have their machines replaced. In the same sector, Weigao is developing new products and services for the UK market (Interviewee E1 2012). When the products are launched customers will be able to choose from a wider range of suppliers when considering where to purchase single use medical equipment.

Since the arrival of MNEs from China, customers have had access to innovative products that were previously unavailable. For instance Mindray is supplying British hospitals with new products that are designed better than their competitors'. Mindray has developed products that customers have wanted for a long time but have not been available prior to the company's entry into the UK market (Interviewee F1 2012). The customers were surprised when the products were introduced and were prepared to purchase them even though they already had machines made by other suppliers.

In some segments the companies offered higher levels of product customisation compared to their competitors. Unlike its competitors, Mindray offers its customers a very high level of product customisation. It works together with hospitals to assess their specific requirements and creates proposals based on this. The company is quite flexible when it comes to meeting specific user requirements and their machines are designed to allow for further adjustments (Interviewee F1 2012). Mindray has the capacity to make a wide range of adjustments such as changes to the device interface for example. An extensive database containing customer requirements enables the company to make these adjustments within a

short time period (Interviewee F1 2012). Owing to Mindray's entry into the UK market, customers are now in a position to benefit from highly customised products which are not being offered by any other medical device suppliers.

The presence of firms from emerging markets can improve consumer welfare through lower prices, product diversity and innovation. These benefits apply to products but also to services. Some Chinese firms have already established a strong presence in Europe in the telecommunications sector (Hanemann, Rosen 2012). For instance Huawei and ZTE have reduced investment costs in Europe which have been passed down to consumers. Similarly companies from India have contributed towards product diversity in advanced economies through the supply of lower cost substitute products (Pradhan 2007). For example Indian pharmaceutical companies manufacture generic medicines for a fraction of the cost of patented ones (Charlie 2012). In the US competition from emerging market firms is lowering the costs of generic medicines and providing US consumers with additional choice (Greene 2007).

Partner organisations

The multinationals influenced distributors, knowledge intensive partner organisations and suppliers in Britain. First, their presence generated additional revenue for local distributors. For instance Hytera, TP Link and Weigao distributed their products via local distributors that benefitted from having new products in their portfolios. TP Link provided its distributors with higher margins (Interviewee G1 2012) compared to other suppliers, making the collaboration even more profitable from the distributors' point of view.

Second, the multinationals created high-end opportunities for local knowledge intensive partner organisations. Some of the partners assisted the Chinese MNEs in delivering high-value, knowledge intensive products and services e.g. Hytera's application partners and system integrators. Application partners develop applications or programs based on customer requirements. For instance they may develop applications for GPS tracking, emergency calls or building management (Interviewee H1 2012). Hytera provides the platform, while the application partners are responsible for developing programs which perform user-specific functions. System integrators combine the equipment with the applications to deliver

integrated professional mobile radio solution to customers. They also provide staff training and after sales support (Interviewee H1 2012). Their job is to integrate terminals, base stations and applications whilst ensuring that end users are trained to use the products and that any emerging issues are resolved.

Meanwhile other partners engaged in the development of new products for the Chinese multinationals. An example of this is Weigao's single use medical equipment which cannot be standardised across international markets. For instance orthopaedic equipment for the Chinese market differs from equipment used in the UK. So Weigao is collaborating with local organisations to develop new products according to local specifications e.g. size and design (Interviewee E1 2012).

Finally, some suppliers are utilising their relationships with Chinese multinationals to promote their products in new markets. This is illustrated by Mindray's suppliers whose products are being launched in Brazil and China. Modules made by specialised suppliers are key components of Mindray's medical devices. Mindray collaborates with numerous suppliers whose modules are then integrated into the machines. Some of the module suppliers are not well known in markets such as China and Brazil in which Mindray is well-established (Interviewee F1 2012). With Mindray's help the suppliers' products are being promoted and their brands are being developed in these markets.

For example a German supplier makes modules which measure cardiac output i.e. the volume of blood pumped with every heartbeat (Interviewee F1 2012).The new parameter is incorporated into Mindray's devices which are being sold in China. This provides the company with an opportunity to promote the modules along with disposable accessories which can be sold to Chinese customers.

8.6. Concluding remarks

The evidence presented by this research illustrates that Chinese multinationals influenced British business partners in different ways. This variation was caused by differences in investment motives and investment modes between the multinationals. The strategic asset-seeking MNEs that set up greenfield sites or

acquired existing companies contributed towards the intensification of research and development activities in partner organisations. MNEs invested via acquisitions also made substantial improvements to the companies they acquired and contributed towards their further growth. These findings are summarised in the table below:

Table 13 - Chinese asset-seeking investors

Company	Investment motives	Investment modes	Investment effects
SAIC	MG brand, vehicle blueprints and development know-how	Acquisition	- Access to Chinese fast-growing automotive market - Development of in-house R&D centre
CQME	PTG's reputation, advanced technology and innovative capability	Acquisition	- Debt reduction and improved cash-flow - Establishment of R&D partnerships with local universities
Zhuzhou CSR Times	Dynex's semiconductor technology and strong R&D capability	Acquisition	- Upgraded manufacturing facilities - Development of in-house R&D centre
Changan	Expertise in automotive engineering especially powertrain	Wholly-owned subsidiary	- Establishment of R&D partnerships with local consultancies and universities

Source: Author's database

Meanwhile the effects caused by asset-exploiting multinationals were oriented towards research and development to a lesser extent. The presence of MNEs that sought to exploit their assets via greenfield investment proved beneficial to British customers. These companies raised competitiveness levels in their respective sectors. In addition they generated high value, knowledge intensive business opportunities for their partners in the UK and in some cases overseas. The effects of these investors were more market focused than the previous group because

their UK activities were largely market-driven. These findings are summarised in the table below:

Table 14 - Chinese asset-exploiting investors

Company	Investment motives	Investment modes	Investment effects
Weigao	Access medical equipment market, new product development	Wholly-owned subsidiary	- Potential to raise competitiveness in medical equipment market - Establishment of R&D partnerships
Mindray	Access medical device market as part of global expansion strategy	Wholly-owned subsidiary	- Competitive pressure on Siemens, Philips and General Electric - Consumer benefits (choice, customisation, innovation) - Supplier entry into new markets such as China and Brazil
TP Link	Access computer networking market, product localisation	Wholly-owned subsidiary	- Intensified competition causing decline of rival firms - Establishment of partnerships with local design companies
Hytera	Access professional telecommunications market, experiential learning	Wholly-owned subsidiary	- Threat to Motorola's market position - Opportunities for application partners and system integrators
Vanceinfo	Proximity to existing customers, expansion of customer base	Wholly-owned subsidiary	Insignificant

Source: Author's database

9. Conclusion

The previous chapter presented the findings of this study in relation to the investment motives, modes and effects of Chinese multinationals in the UK. The results were analysed in the context of existing theories and empirical studies. The closing chapter of this thesis begins by discussing the relevance of the study in relation to practical developments and academic research. This is followed by a restatement of the study's aim and objectives. Next the study's contribution is emphasised which is followed by a discussion of the implications.

9.1. Relevance

The steady rise in outward investment from China over the last decade means that the presence of Chinese multinationals in foreign countries has never been greater. Although the majority of Chinese outward investment is concentrated around Asia, companies from China are increasingly venturing into advanced economic regions such as the US and the European Union. Large economies such as Germany, France and the UK host the largest proportion of Chinese multinationals in Europe. Although Chinese investment has drawn significant media attention, academic research has not kept up with the flurry of investment activity.

Outward FDI from China has received comparatively less scholarly attention than FDI undertaken by Western multinationals in China. Although the number of studies on Chinese outward investment is growing, the availability of research in this area is still relatively limited. In particular few studies concentrate on the effects of Chinese investment on advanced host countries. This aspect of Chinese investment is becoming increasingly relevant as more multinationals choose to locate their international activities in Europe. There is a growing need for advanced host economies to improve their understanding of Chinese multinationals, especially the effects these companies are having on host country business sectors.

Further knowledge of Chinese investment effects is particularly useful for British-based businesses that are competing against or partnering with Chinese multinationals, or may do so in future. It also serves to better inform policymakers'

decisions on what position to take in relation to Chinese multinationals in the UK. The influx of Chinese multinationals in Europe together with the lack of academic research on their effects has created a need for more research in this area.

Existing studies on Chinese outward investment focus on the behaviour of Chinese multinationals. They emphasise the multinationals' perspective by investigating their investment motivations and strategies for example. Whilst this study examines the investment motives and modes of Chinese multinationals, it also includes the host country perspective. This is achieved by investigating the effects of Chinese investment on business partners in Britain.

9.2. Aim and objectives

The aim of this study was to understand the extent to which the investment motives and investment modes displayed by Chinese MNEs influence the effects of their investments on British business partners. This aim was achieved through three research objectives. The first objective was to examine the investment motives of Chinese multinationals. The second was to understand their investment modes and the challenges they encountered. The third was to identify the effects of Chinese multinationals on British business partners. By accomplishing the research aim and objectives this thesis has made two key contributions – the first relates to investment motives while the second relates to investment effects.

9.3. Contribution

This section highlights the study's theoretical and empirical contributions. It shows how findings on Chinese competitive advantages and investment motives contribute towards existing internationalisation theories. In addition it demonstrates how the conclusions regarding Chinese investment effects contribute towards existing empirical literature.

Competitive advantages and investment motives

Detailed examination of the Chinese MNEs shows that they differ with regard to competitive advantages and investment motives. Some of the companies lacked

competitive advantages and invested in Britain to acquire them, while others already had such advantages and intended to exploit them.

This finding exposes the contextual limitations of leading internationalisation theories which argue that firms internationalise either to exploit or to acquire competitive advantages. The first view proposes that firms need to have ownership advantages (Dunning 1993) or firm-specific advantages (Rugman 2007) in order to internationalise. Meanwhile the second view argues that companies from emerging economies lack such advantages and internationalise with the intention of gaining them (Guillen, Garcia-Canal 2009, Luo, Tung 2007, Mathews 2006b)

The conclusions of this research suggest that the companies examined display elements of both perspectives. Some of the Chinese multinationals internationalised on the basis of existing ownership advantages while others did not. The problem with the first view is that it does not account for the internationalisation behaviour of Chinese multinationals that lack competitive advantages of the conventional kind. Instead it provides a useful explanation of the investment behaviour of TP Link, Weigao, Vanceinfo, Hytera and Mindray, all of which already possessed competitive advantages.

The second view suffers from similar deficiencies when it comes to the internationalisation of Chinese multinationals. It was developed to explain the internationalisation behaviour of emerging market multinationals without taking into account companies that possess competitive advantages. This perspective is therefore limited to explaining the internationalisation behaviour of firms that lack such advantages e.g. SAIC, Changan, Zhuzhou CSR Times and CQME.

The inherent diversity of Chinese multinationals suggests that it may be necessary to extend the two perspectives to provide more holistic explanations of the internationalisation of emerging market firms. The first view could be modified to account for emerging market firms that lack ownership advantages, while the second view could be adapted to include those that already have them. Alternatively a new theory could be devised taking into consideration the diversity of Chinese multinationals. The theory could offer an explanation for the

international investment activities of emerging market firms that have existing competitive advantages and also those that do not.

Investment effects

The results of this research suggest that the effects were dependent on the investment motives of the Chinese multinationals and their selection of investment modes. The detailed examination of their investment effects contributes to empirical literature on the effects of emerging market multinationals' investment activities on advanced host economies. The findings are summarised in the following matrix:

Figure 42 – Investment effects matrix

Investment motive

Investment mode	Strategic asset-seeking	Strategic asset-exploiting
M&A	-Improvements and growth in acquired firms -R&D intensification in external partners 1	No companies in this category
Greenfield	-R&D intensification in external partners 2	-Customer benefits -Competitive effects -Business generation for external partners 3

Source: interview data

Companies with strategic asset-seeking motives that invested via M&A (quadrant one) and greenfield investment (quadrant two) intensified R&D activities in British partner organisations. The technological focus of these investors resulted in numerous collaborations with British R&D organisations such as universities and consultancies. Thus the presence of Chinese MNEs contributed towards the buoyancy of the R&D industry in Britain. In addition to the effects on external partners, strategic asset-seeking companies that invested via M&A (quadrant one) had profound effects on the companies they acquired. The acquired companies

experienced largely positive effects once they were taken over by Chinese multinationals. They were able to access new capital needed to service their debts or to fund large investment projects. The takeovers ensured job preservation and new job creation in acquired organisations. They were also able to access the Chinese market using the support and guidance of the Chinese parent companies. The acquired companies intensified their R&D activities as a result of their new owners' drive towards technological development.

They also learned about Chinese business culture and the Chinese market which would enable them to compete more effectively in China. There is some preliminary evidence of technological transfer from China to Britain which suggests that Chinese firms are rapidly catching up with Western technologies. The competitive position of the acquired firms improved because they could access new sources of capital, their R&D efforts intensified and they had improved the knowledge and skills needed to access the Chinese market. These benefits were achieved through minimal intervention by the Chinese investors who made a concerted effort to preserve the identity and autonomy of the acquired companies.

On the other hand, companies with market-access seeking motives that invested via greenfield investment (quadrant three) had rather different effects compared to the previous group. They mostly affected competitors, customers and partner organisations in Britain. Chinese multinationals intensified competition in their respective markets which compelled local rivals to be more efficient in terms of pricing and service agreements. However the entry of Chinese multinationals also had a downside which was to threaten the survival of some of its competitors. Their presence improved consumer welfare by providing additional choice, value, innovation and customisation. The investors affected a range of British partner organisations. For instance they generated additional revenue for local distributors and high value-added opportunities for British partner organisations. The Chinese multinationals also assisted local suppliers in promoting their products in new overseas markets such as China and Brazil.

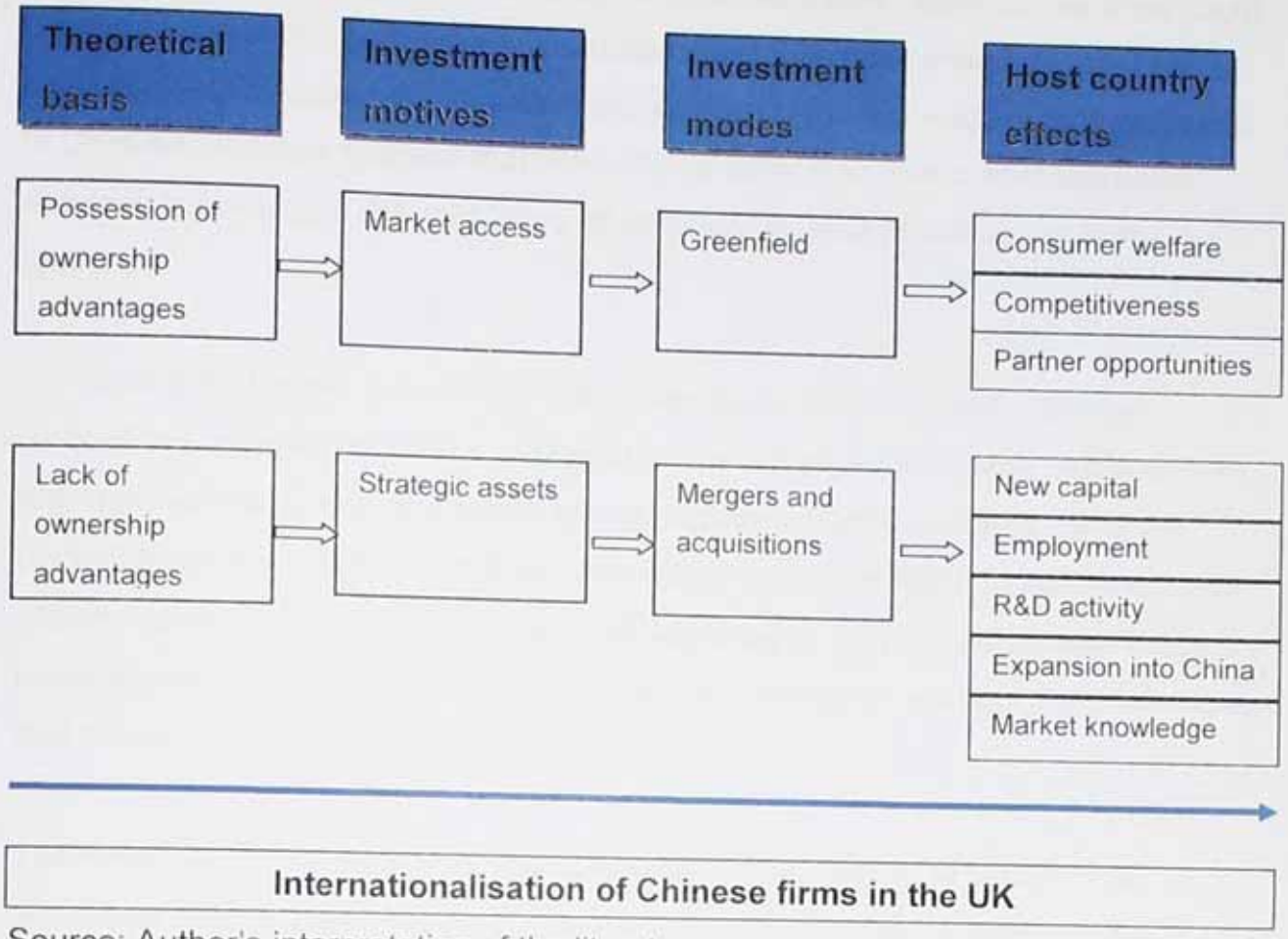
On the whole the effects demonstrated by this group of investors were more market-focused than the previous group. Aside from the benefits for customers and the acceleration of competitiveness in their sectors, these companies also

generated considerable high value-added, knowledge intensive opportunities for their British business partners at home and abroad. Compared to the previous group, the effects were less R&D intensive because of their overall focus on market-based activities rather than technological development. Nevertheless the presence of this type of investor was shown to be equally beneficial.

Based on the evidence provided, this research has contributed to both the theoretical and empirical literature by examining the investment behaviour of Chinese multinationals in Britain. From a theoretical point of view it contributes to existing internationalisation theories by demonstrating that some emerging market firms possess significant competitive advantages while others do not. Existing literature on the investment effects of emerging market multinationals in advanced economies is sparse and often provides us with superficial understanding of this relatively new phenomenon. The empirical contribution of this study is that it provides a detailed understanding of how firms from emerging markets can influence business partners in advanced host economies. In doing so it finds that different investment motives and modes result in diverse effects on business partners in the host country.

The conceptual model that was first presented at the end of the literature review has now been updated to show the key contribution to knowledge that this study makes. The column 'theoretical basis' shows that the investment behaviour of Chinese firms in the UK can be explained using two different theoretical approaches which are manifested through two investment motivations. The arrows inserted between columns highlight the interaction between investment motives, modes and effects which was not considered by previous research. The model shows that different investment motives and investment modes lead to different investment effects on the host country. Finally the fourth column 'host country effects' details some new investment effects found in the UK which were not captured by previous studies.

Figure 43 - Conceptual model of Chinese investment in the UK



Source: Author's interpretation of the literature

9.4. Implications

Having examined the theoretical and empirical contributions of this study, this section discusses the implications of its findings.

9.4.1. Competitive advantages and investment motives

The findings regarding Chinese competitive advantages and investment motives have significant implications for UK investment promotion agencies (IPAs). The results of this research provide local IPAs with helpful knowledge about Chinese investors. The understanding that Chinese multinationals have different competitive advantages and therefore different reasons for investing allows IPAs to promote the UK as an investment destination to potential Chinese investors more effectively. They could develop a differentiated approach towards attracting Chinese investment on this basis. For example IPAs could focus on promoting

strategic assets such as brands, technology and know-how to potential Chinese investors looking to upgrade their competitive advantages. Alternatively IPAs could highlight local and regional market opportunities to Chinese investors that are looking to exploit existing competitive advantages. Findings relating to the diversity of Chinese investors suggest that IPAs should tailor their investment promotion activities according to different types of investors instead of taking a uniform approach.

The finding that some Chinese multinationals have developed considerable competitive advantages similar to those held by advanced economy multinationals has implications for the domination of multinationals from developed countries. Historically multinationals from advanced economies dominated global investment activities because of superior competitive advantages they held. Although these multinationals still lead the way in terms of cross-border investment there are signs that this is beginning to change.

The results of this research show that approximately half of the companies examined already possessed advantages that enabled them to compete in overseas markets. In terms of competitive advantages these Chinese multinationals are similar to multinationals from advanced economies. This may be an indication that some Chinese multinationals have caught up or are close to catching up with their developed country rivals.

Meanwhile there are still some developing country multinationals that lack strong competitive advantages and are unable to compete effectively against global leaders. Half of the companies examined for the purpose of this study belonged to this category. It is possible that once their competitive advantages have been strengthened, these multinationals will not be very different to multinationals that currently dominate global investment activity. This may not only be the case with Chinese multinationals but may also apply to multinationals from other developing countries.

9.4.2. Effects on British business partners

The research findings suggest that although they are diverse, the effects of Chinese investment on British business partners are largely positive. This represents a key finding for UK policymakers who could develop a differentiated approach to encourage both asset-seeking and asset-exploiting investment from China.

At present the UK government does not specifically encourage Chinese acquisitions. Given the benefits that acquired British firms derive from this type of investment, perhaps UK policymakers should consider encouraging Chinese asset-seeking to acquire troubled companies in Britain. The government could provide a free service that helps Chinese companies to identify possible acquisition targets and assists them throughout the acquisition process. The costs of running such a service would be offset by the benefits to acquired businesses and local partner organisations.

Similarly UK policymakers would have good reason to encourage Chinese asset-exploiting companies to set up greenfield sites in the UK. Given the benefits brought about by this type of investment, perhaps the government could consider providing a separate service for Chinese greenfield investors. The service could assist potential investors with locating suitable greenfield sites. It could also provide guidance with regards to local business regulations and practices with which they may be unfamiliar.

The findings of this research relating to some of the effects of Chinese investment also have implications for British partner organisations. These organisations acquired significant advantages from partnering with different types of Chinese investors. Some of the partners collaborated on new research and development projects initiated by Chinese investors. Some distributed new products made by Chinese companies. Others acted as their suppliers or collaborators in joint delivery of knowledge-intensive products and services.

The benefits of partnering with Chinese multinationals illustrated by this research should encourage British businesses to be proactive in forging relationships with these investors. British organisations could have the opportunity to generate

additional revenue, work on new knowledge-intensive projects, expand into new overseas markets such as China and others, and learn about Chinese business culture and the Chinese market. At present the learning opportunities are mainly confined to soft knowledge with some exceptions of technical learning. However, partnering with Chinese multinationals in the future may provide further opportunities for technical learning as their technological competencies evolve.

9.5. Study limitations

This section discusses three main limitations of the study which relate to generalisability, subjectivity and data access. The question of generalisability was previously addressed as a limitation of the case study method whereas, here, it is discussed in a more general sense. This study develops our knowledge of the investment behaviour of a particular group of Chinese multinationals. Given its narrow focus there are limitations with regards to the generalisability of its conclusions.

This research builds our understanding of the factors which motivate Chinese companies to invest in the UK. It details the investment modes they use to do this and considers the implications for the host country. The study achieves its aim of building a more complete picture of the activities of Chinese multinationals in the UK. This is particularly useful for policy-makers, investment promotion agencies and British firms wishing to form relationships with Chinese multinationals. However the conclusions are not necessarily applicable to other contexts. For example we cannot assume that Chinese multinationals investing in other advanced economies would behave in the same way. Despite limitations regarding generalisability, the findings of this study can serve as a basis for reasonable assumptions or hypothesis generation in further research.

The issue of subjectivity as a potential limitation pertains to the researcher and to the study participants. Although every effort was made to ensure credibility and validity throughout the research process the question of subjectivity needs to be addressed as a potential limitation.

First there are cultural differences between the researcher and the interviewees. The study participants were British or Chinese while the researcher was of a different background. These differences increase the likelihood of misinterpretations. For instance the interviewee may misunderstand the question and then provide an answer based on what they thought was being asked.

A related limitation is that of the native language spoken by the interviewer and the interviewees. This limitation was applicable when native Chinese speakers were interviewed in English. Although the interviewees were fluent in English and there were no significant communication problems, there is a possibility that some fine details were overlooked owing to language differences between the interviewer and the interviewee.

Second, the interview data could have been affected by the interviewees' perception of the researcher as an outsider. The interviewees may have been cautious about disclosing certain information to an academic researcher. Perhaps they had concerns about the way in which the data could be used and this may have affected their responses.

Finally, as with any interview-based research, there is a chance that study participants may provide inaccurate information. This could happen unintentionally if, for example, the interviewee can only partially recall an experience they are describing. On the other hand interviewees may deliberately provide incorrect information by exaggerating events or describing them in a way that creates a positive impression about them and their organisation. The issues around subjectivity of interview research were mitigated through data triangulation whereby data was sourced from a number of different interviewees and from other non-interview sources such as company documents, trade publications etc.

Gaining direct access to the case study firms was exceedingly challenging as most of them were unwilling to participate. The companies that did participate did so to varying degrees. Some of the firms agreed to extensive interviewing of up to 10 hours while others could spare no more than one or two hours. The issue of varied interview access to Chinese firms was overcome by the inclusion of interviews with other organisations and the use of secondary data. Interviews were arranged

with individuals from government (e.g. UKTI and EMDA) and partner organisations (e.g. Mahle and Cosworth). The information gathered through interviews was supplemented by secondary data from a range of sources including company websites, specialised publications and media portals amongst others.

Given the difficulties of accessing the Chinese companies, the use of interview data alone would have posed serious challenges to answering the research question. The addition of interviews from external organisations as well as information from secondary sources ensured that there was sufficient data to answer the central research question comprehensively. Each of the case study companies included in this research plays a vital role in improving our understanding of Chinese investment behaviour and the effects it has on local business partners.

The first three case study firms SAIC, CQME and Zhuzhou CSR Times showcase the investment behaviour of Chinese strategic asset-seeking firms. They improve the companies they acquire and intensify R&D activities in partner organisations. Meanwhile the remaining six case study firms show that Chinese companies can also be market-seeking and that the effects of their investments are different to the previous group. In spite of its limitations this research provides us with a better understanding of Chinese investors in the UK. It allows us to appreciate the diversity of their investment motivations, the types of investments they undertake and consequently the different effects they have on British partner organisations.

9.6. Further research

The findings of this study open up a range of research directions with regards to the investment behaviour of Chinese and other emerging market multinationals in the UK and other advanced host economies.

This study has extended our knowledge of Chinese investment behaviour and its implications in particular sectors in the UK including automotive, manufacturing, IT, telecommunications and medical equipment. The question is whether Chinese firms invested in other sectors in the UK display the same behavioural patterns.

The next step would be to develop a quantitative study using a representative sample which covers all of the sectors in which Chinese firms invest. The findings of the present study could be used to generate hypotheses which would be tested using a larger sample.

The investment behaviour and its implications discussed in this research apply to Chinese multinationals. It would be interesting to explore the investment activities of multinationals from other emerging markets e.g. India. A new study could be designed to see how Indian investors compare with Chinese investors in relation to investment motives, modes and effects. The study could focus on whether investments undertaken by Indian multinationals are more or less beneficial to the UK economy compared to Chinese investments. The findings could be used to guide policies which govern FDI from emerging economies.

While the present research looks into Chinese FDI in the form of greenfield investment and acquisitions because of the prevalence of these two investment forms, a new study could be devised to examine other investment types. It could explore Chinese joint venture arrangements and strategic alliances in the UK and compare the results with the findings of this study. It would be especially useful to investigate the extent to which these forms of investment are beneficial to UK firms that are party to these arrangements.

Further research directions opened up by this study are not geographically confined to the UK. Having investigated the investment activities of Chinese multinationals in the UK, it would be valuable to do the same in other advanced host economies e.g. US, Japan or other EU countries. It would be particularly interesting to look into their reasons for investing, the ways in which this is being done and to identify implications for local economies. Similar to the UK the findings would help policy-makers to develop appropriate policies towards Chinese investors. This new research would be a positive step towards building a comprehensive picture of Chinese investment activities in advanced host economies.

9.7. Closing remarks

The intensification of outward investment by Chinese and other emerging market multinationals has led to an increased presence of these firms in advanced economies. However our understanding of their investment activities is limited because academic research has not kept up with practical developments in the field. This study represents a step towards improving our knowledge by examining the investment behaviour of Chinese multinationals in Britain. In doing so it builds a more complete overall picture of Chinese FDI in advanced economies.

The value of this research to academics consists of theoretical and empirical aspects. From a theoretical point of view it highlights the fact that existing theories do not fully explain the internationalisation of Chinese firms and therefore need to be synthesised. Meanwhile, from an empirical point of view, this study finds that Chinese investment effects are determined by the type of investment used and the factors which motivate the initial investment decision.

This research is also valuable to practitioners in government and in the private sector. For policy-makers the finding that Chinese investment is largely beneficial regardless of the type of investment undertaken is a useful basis for fine-tuning FDI policy. Meanwhile the potential benefits of partnering with Chinese multinationals uncovered by this research are of strategic significance to British firms. Companies looking for investors may be more inclined to select Chinese partners, while those looking to enter the Chinese market may wish to link up with Chinese firms instead of going it alone.

The results of this study contribute theoretically and empirically towards existing academic knowledge on Chinese outward investment. They also identify potential opportunities that are available to business practitioners as a result of Chinese FDI in the UK. The findings suggest that policy-makers should be more proactive in attracting Chinese investors while local businesses have much to gain from partnering with them.

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Interviewee A2 2012, *Head of Vehicle Trim Engineering Shanghai Motor Technical Centre UK*, Birmingham.

Interviewee A3 2012, *Deputy Director - Powertrain Integration SMTC UK*, Birmingham.

Interviewee A4 2012, *Vice Director - Chassis Shanghai Motor Technical Centre UK*, Birmingham.

Interviewee A5 2012, *Head of Vehicle Program Shanghai Motor Technical Centre UK*, Birmingham.

Interviewee A6 2012, *Head of Finance MG Motor UK*, Birmingham.

Interviewee A7 2012, *Head of Finance*
Shanghai Motor Technical Centre UK, Birmingham.

Interviewee A8 2012, *Chief Engineer*
Shanghai Motor Technical Centre UK, Birmingham.

Interviewee B1 2012, *General Manager Advanced Developments*
PTG, UK, Rochdale.

Interviewee B2 2012, *Import/Export Executive*
CHMTI, China, Rochdale.

Interviewee B3 2012, *Engineering Manager*
CHMTI, China, Rochdale.

Interviewee B4 2012, *Interpreter*
PTG, China, Rochdale.

Interviewee C1 2012, *R&D Centre Director*
Dynex, Lincoln.

Interviewee C2 2012, *Assistant Director of Assembly Workshop*
CSR Nanjing Puzhen, Lincoln.

Interviewee C3 2012, *Chief Engineer*
Zhuzhou Electrical Module Company, Lincoln.

Interviewee C4 2012, *Design Engineer*
CSR Times, Lincoln.

Interviewee D1 2011, *Vice General Manager*
Changan R&D Centre Limited, Nottingham.

Interviewee E1 2012, *Research Group Manager*
Wego Medical Europe Ltd, Southend-On-Sea.

Interviewee E2 2012, *Professor of Business Enterprise and Innovation*
Essex Business School, Southend-On-Sea.

Interviewee F1 2012, *Managing Director*
Mindray UK, Huntingdon.

Interviewee G1 2012, *Country Manager UK and Ireland*
TP-Link UK Limited, Reading.

Interviewee H1 2012, *Managing Director*
Hytera UK, Slough.

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Appendices

Appendix 1 – Invitation letter

THE UNIVERSITY OF NORTHAMPTON
Northampton Business School

Subject: PhD research project

Dear Sir/Madam

I am a research student at the University of Northampton and my doctoral thesis is about Chinese foreign direct investment in Britain. I am particularly interested in their reasons for investment, the ways in which these investments were undertaken and the implications for British business partners. The study is being undertaken for academic purposes only and does not seek to obtain any commercially sensitive information. The research adheres to strict ethical guidelines set out by the University.

This research project takes a multiple case study approach and will be based on a number of Chinese multinationals in the UK as well as their British partners. I would therefore like to invite your organisation to kindly participate in this research. If you decide to take part, 1hr interviews with employees at different levels including managers and operative staff will be arranged. I would be grateful if 10 individuals from your organisation could be interviewed.

My research project is supervised by a team of lecturers and professors from Northampton Business School. The first supervisor is Dr Shaowei He (shaowei.he@northampton.ac.uk). If you would like to find out more about this project or if you have any questions please feel free to contact either of us.

I would be grateful if you could let me know if you are interested in taking part in this research. In the meantime I look forward to hearing from you at your earliest convenience.

With kind regards

Jelena Vukicevic
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THE UNIVERSITY OF NORTHAMPTON
Northampton Business School

Consent form

I acknowledge that I have read and understood the research project summary.

I acknowledge that I have read and understood the project aims and objectives.

I understand that my participation is voluntary and that my consent may be withdrawn at any time.

I understand that the interview will be confidential and no personal information will be disclosed.

I understand that the researcher will ensure that the interview data remains anonymous.

I understand that reports and publications may be written about this research and that no personal information will be disclosed in public without my prior consent.

I give permission for my views to be used in publications from the study and I understand that they will not be used for any other purpose.

I have read and understood all of the above points and wish to take part in the study.

Name:

Signed:

Date:

THE UNIVERSITY OF NORTHAMPTON
Northampton Business School

UK activities

1. What are your activities in the UK?

Motivations

2. Why did your organisation decide to set up a UK subsidiary?
3. Were any challenges encountered?

Market entry strategy

4. Your company chose to enter the UK market by setting up a wholly owned subsidiary. Why was this strategy chosen?

Host country effects

5. What are the effects of your company's presence on UK customers, suppliers, competitors and collaborators?

Cross-cultural collaboration

6. To what extent is the workforce local in your UK office?
7. Are there any cross-cultural challenges in working with the British?

R&D activities

8. Where are your R&D activities located?
9. How innovative is your company?
10. Please can you give examples of new products / processes?

Role of government

11. What is your relationship with the Chinese government?

Strategic outlook

12. You aspire to become one of the top 3 companies in your sector. How do you plan to achieve this?

Appendix 4 – Interview guide for British partner organisations

THE UNIVERSITY OF NORTHAMPTON
Northampton Business School

1. What is your view on Chinese investment in the UK?
2. Why do you think that Chinese companies are choosing to locate their subsidiaries in the UK?
3. What sort of activities are they undertaking?
4. What are the benefits?
5. How does this kind of investment impact UK businesses?
6. Are UK businesses benefitting from Chinese investment?
7. If so, in what way?

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Role of your organisation

1. In what way is your organisation involved with Chinese investors?
2. What is your individual role?

Motivations

3. The UK is a leading EU destination for Chinese investment. Why do you think that is?
4. What attracts them to invest in the UK?

Challenges

5. What concerns do they have?
6. What are the perceived barriers?
7. What could be done to attract more investment from China?

Host country effects

8. What are the effects on UK businesses? (e.g. competitors, suppliers, customers, collaborators)
9. What are they learning from Chinese companies?
10. In what way are they benefitting?
11. What are the effects on the UK economy?

Home country effects

12. What are the effects on the investing Chinese firm?
13. And on HQ back home in China?
14. What are the effects on the Chinese economy?

Long-term outlook

15. How do you see the future of Chinese investment in the UK?