Master Thesis

Foreign Investments in The Chinese Automobile Industry: Analysis of Drivers, Distance Determinants and Sustainable Trends

1 September, 2011

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Abstract

This thesis elaborates on the different motives and determinates that influence foreign companies to invest in the Chinese automobile industry, which in 2009 became the largest automobile producer in the world. The Chinese car manufacturing industry has been thoroughly described and analyzed through in-depth PESTEL and Porter’s five forces Analyses. Furthermore, based on the theoretical background of Dunning’s eclectic paradigm (OLI theory) and Ghemawat’s CAGE framework, this paper contributes to the existing literature on the topic by preparing detailed analysis of the drivers that have influenced the investment decisions of the three most powerful players in the Chinese automobile industry: the American General Motors, the German Volkswagen and the Japanese Toyota. Moreover, the thesis presents the most important distance determinants with respect to the three foreign countries: The USA, Germany and Japan and the host country: China and gives valuable examples with regard to the operations of the three biggest global players in China. Last but not least, the paper provides in-depth description of the sustainable trends in the Chinese automobile industry and gives important insights of General Motors’, Volkswagen’s and Toyota’s current strategies in this direction. The conclusion chapter gives and overall discussion of the most important findings with regard to the business operations of the three foreign companies in the host market. What is more, the authors of the thesis offer important recommendations for the future profitability and growth of the three foreign most powerful companies in China.

Key Words: Chinese automobile industry, FDI, OLI theory, CAGE framework, General Motors (GM), Volkswagen (VW), Toyota (TMC), PESTEL analysis, Porter’s five forces analysis, Sustainable trends.
Acknowledgements

We would like to thank our academic supervisor Prof. Kurt Pedersen for his most valuable advices and kind cooperation throughout the writing of this thesis. His most committed and very motivational guidance during the writing of this paper could not be overstated.

We would also like to reserve our most profound gratitude to our parents and siblings for their unconditional support and trust during the writing of this thesis.

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1 Introduction Chapter

China is one of the most attractive investment destinations for most of the biggest global players today. One reason for this is the fact that the automobile industry in China is one of the most important industries in the country’s economy and contributes a significant share of the total GDP and employment.

Of no less importance is the fact that, the relatively saturated markets in Europe, the United States and Japan push the big automobile manufacturers to look for growth potential elsewhere and China becomes a preferable destination as being a prime emerging automobile market. In fact, in 2009 China became the largest automobile manufacturing country in the world. Nevertheless, the growth potential of the car market in China is to be further developed in the years to come. The trend is that the global car makers are going to continue shifting their focus to China in terms of asset allocation and creating joint ventures (JV) with domestic automobile manufacturers.

China possesses significant complexity for foreign automobile manufacturers. In this respect in order to succeed in the Chinese automobile industry, the world’s biggest automobile manufacturers: General Motors (GM), Volkswagen (VW) and Toyota (TMC) have to deal with completely different cultural, administrative (political), geographic and economic environment when working in a close co-operation with their domestic partners.

Furthermore, in order to be most successful in terms of soaring profitability and largest possible market share, the North American, European and Japanese biggest and most powerful automobile manufacturers (GM, VW and Toyota) have to consider introducing car models meeting the Chinese needs and demands with respect to modern sustainable technologies reflecting the reduction of carbon dioxide emissions in the air and in-line with increased environment safety.

1.1 Problem statement and research objectives

The purpose of this master thesis is to present and explore the major role of foreign direct investment (FDI) for the immense development in the recent years of the automobile industry in China, making this emerging market the world’s leader in terms of automobile manufacturing and sales in the last year.
Therefore, the first objective of this paper is to identify and examine the various drivers and determinants that influence foreign carmakers to invest in China’s auto industry. In order to understand this, the authors will analyze extensively the Chinese automobile industry and market by preparing a thorough PESTEL and Porter’s five forces analyses.

Furthermore, three cases of the world’s biggest North American, German and Japanese automobile producers, and namely General Motors, Volkswagen and Toyota, will be presented. The most important information and facts with regard to the three companies’ business operations in China will be discussed. In order to methodically examine what types of foreign direct investments are the most common in China’s automobile sector, Dunning’s typology will be applied with regard to the three companies above. An extensive examination will be performed in terms of GM’s, VW’s and Toyota’s ownership, location and internalization advantages.

Of no less importance is the fact that, in order to make the analysis of the FDI in the Chinese automobile industry most complete, this paper will also study how various distance dimensions influence on business behavior and investment/entry decisions in the Chinese car market. Therefore, the CAGE framework will be applied with respect to in-depth examination of the cultural, administrative, geographic and economic distance between the foreign investors’ countries with respect to USA, Germany and Japan and the host country- China. What is more, in order to make the analysis most comprehensive, examples will be provided of how GM, VW and Toyota deal and adapt to the various distance determinants.

The final, but also very central to this study objective is to describe and investigate the new sustainable trends that have been emerging for several years in the Chinese automobile market and how these trends will be shaping the development of the industry in the foreseeable future. The thesis will conclude with possible recommendations of what strategies should foreign companies adopt in the light of these trends and the accompanying challenges.

1.2 Scope and Limitation of the research
The purpose of the research is to further contribute to the existing literature on the topic. The thesis fulfills this purpose by making a thorough analysis based on the most relevant theoretical background as a fundamental basis. Moreover, the existing literature on the topic is being brought up to date by the recent examples of the business operations in the Chinese automobile industry by three of the world’s biggest players in the automobile manufacturing.
The limitation of the research derives partially from the selected research strategy in terms of case study. Although the case study research strategy is the most appropriate for the purpose of the research in the thesis and is characterized by providing in-depth understanding and flexibility of the investigation it has some disadvantages too and they include generalization and narration.

The second limitation of the research is that the data collection methods are based only on secondary data due to the difficulty of obtaining relevant primary data (e.g. through interviews) of the three companies selected for the case studies in the thesis.

1.3 Structure of the thesis
In order to methodically present the relevant information, important facts and findings to the readers, the thesis will follow the general structure presented below:
2 Literature Review Chapter

The aim of the chapter is to provide theoretical background for this thesis. Firstly, short introduction and most common definitions of FDI will be presented. Secondly, an overview of the main FDI theories will be provided with more focus on OLI paradigm since it will be used in the subsequent analysis in this paper. Thirdly, major motives and determinants of FDI will be examined. Then, distance determinants will be presented according to the famous CAGE framework. Finally, a short summary will conclude the chapter.

2.1 Introduction and Definitions

Foreign direct investment is widely regarded as the underlying component for globalization. It has the ability to establish long-lasting and firm linkages between countries and companies. It is one of main reasons for rapid economic growth and transfer of knowledge and technologies. FDI creates new jobs and gives the host economy more competitiveness on both domestic and international level. It also spurs productivity of firms, industries and countries.

Since this thesis will deal only with FDI, the authors will provide no definitions for other investment types.

FDI, as defined by the OECD 4th edition of Benchmark Definition of FDI and preferred by authors of this thesis, is “Foreign direct investment reflects the objective of establishing a lasting interest by a resident enterprise in one economy (direct investor) in an enterprise (direct investment enterprise) that is resident in an economy other than that of the direct investor. The lasting interest implies the existence of a long-term relationship between the direct investor and the direct investment enterprise and a significant degree of influence on the management of the enterprise. The direct or indirect ownership of 10% or more of the voting power of an enterprise resident in one economy by an investor resident in another economy is evidence of such a relationship.” This definition overlaps with IMF’s 6th edition of Balance of payments. It is argued that the 10% threshold might not be a good indicator for significance of influence on management since one may own less than 10% and have the decisive management vote while in other cases one can have much more than 10% of a company and yet not to be the decision-maker in the management. This percentage is used for statistical consistency across countries and as a basic dividing
line between FDI and portfolio investments. It is important to note that FDI is not only the initial equity of at least 10% but also any subsequent investment by the direct investor to the direct investment enterprise. In this category falls any reinvested earnings and inter-company debt.

Another definition that is consistent with the above mentioned is the one provided by UNCTAD: “FDI is defined as an investment involving a long-term relationship and reflecting a lasting interest and control by a resident entity in one economy (foreign direct investor or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investor (FDI enterprise or affiliate enterprise or foreign affiliate)” (UNCTAD 2005b). It is also suggested that in order to classify it as FDI at least 10% ownership must be present.

FDI can take place as either Greenfield investment (a new facility is set up in the host country) or as Mergers & Acquisitions (two existing companies merge or one company takes over the other one) or as International joint ventures. However, the last type also occurs in the form of either Greenfield or M&A. This classification of FDI will not be taken into consideration for the purposes of this thesis since only international joint ventures are significant because of the nature of the topic and host country’s regulatory framework.

2.2 Overview of The Main FDI Theories
In this section, authors will give a brief overview on some of the main FDI theories. The ultimate purpose of these theories is to better explain why a firm would choose to produce internationally rather than stay at home or involve in some more simple internationalization modes such as exports or licensing.

One of the earliest theories on FDI was the one that explains FDI through market imperfections. Kindleberger (1969) argued that in a perfect market companies cannot obtain any advantages. The assumption here is that markets are imperfect. He stated that for a firm to be competitive in a foreign environment, it should possess some advantages to offset local firms’ familiarity with environment. These firm-specific advantages can only be created in an imperfect market. Numerous firm-specific advantages have been listed throughout the years – superior technology and marketing (Caves 1971), cheap
labor (Grubel 1968), management skills (Wolf 1977), access to natural resources (Lall and Streeten 1977), etc. Hymer (1976) also argued that in order for a company to compensate its disadvantage (culture, language, lack of local network, communication and transportation costs, etc.) of being a foreigner it must possess a firm-specific advantage. He indicated that companies will see their foreign production facilities as a channel through which knowledge and other assets will easily be transferred. By exploiting its ownership-specific advantages the firm, using market imperfections, will be able to create oligopolistic or monopolistic positions thus performing better than the competition.

Vernon’s product life cycle theory was probably the first major theory to try to explain the rationale behind FDI. According to Vernon (1966) a product would typically go through 3 stages – innovation phase, maturity phase and standardization phase. Developed countries would create innovative products mainly because of their abundance with state-of-the-art technologies. In the first phase, the product would be sold mainly in the domestic market while the surplus would be exported. The price will be inelastic since demand is very strong and typically, highly innovative goods can influence prices. As time goes by, the product develops, technology becomes known and foreign firms start to imitate the product. Foreign competitors become better at copying the product, the exporting firm will not be competitive anymore and will be forced to set up a production facility in local markets in order to keep its market shares and deal with severe price competition. This phase is called the maturity phase and the driving force for FDI is reduction of costs (achieved mainly by lower labor cost in host country). In the third phase, the company achieves full economy of scales by completely standardizing the product and moving its production to cheaper countries (low labor wages).

The internalization theory developed by Buckley and Casson (1976) is another major FDI theory. The focus here is that companies would rather prefer to undertake the internationalization process internally than with an external counterpart in forms of joint ventures, licensing, etc. According to this theory, MNEs are organized in such a way so to build up firm-specific advantages, which can be exploited later on internally in a foreign environment. For instance, a company may find it difficult to quantify the value of R&D knowledge and for that reason it may decide to undertake FDI in order to exploit internally this advantage (Han and Brewer 1984).
Very influential were the findings of John Dunning in his famous *OLI Eclectic paradigm* (Dunning 1977). The abbreviation OLI stands for Ownership, Location and Internalization advantages that must be present in order for FDIs to occur. This theory is widely used in analyzing FDI motives (look at 2.3.1 for further information on FDI motives). It was initially planned as a theory but due to some critiques, it was changed in the 1980’s to a paradigm.

- **Ownership advantages**, as Dunning (1977) pointed, refer to some firm-specific assets or resources that are exclusively owned by a company. These assets could be either tangible such as state-of-the-art technology, abundant financial resources, marketing or better production processes or intangible such as specific managerial skills, superior know-how, innovation, good reputation and brand recognition. It might be said that firms’ ownership advantages are their core competences.

- **Location advantages** will refer to a certain country’s characteristics. When a company possesses some strong ownership advantages, it is better for it to exploit them itself in the form of FDI rather than selling or licensing them to foreign firms (Dunning 1988). That is why this company will start looking for the perfect foreign country in order to exploit its ownership advantages internationally. Location advantages will determine which country will be chosen for an investment. Location advantages might be availability of natural resources, labor cost, transportation cost, cultural closeness, investment incentive policies and taxes, market size and growth potential, etc.

- Finally, a firm must be able to internalize its ownership advantages with the host country’s location advantages in order to effectively and efficiently operate in a foreign environment. This is called by Dunning (1977) *Internalization advantages*. The main idea here is that a company should be better off exploiting its ownership advantages internally rather than licensing or selling them to another company (Dunning, 1980). The costs of internalizing will be less than if sold or licensed to an outside firm. Furthermore, by internalizing the firms will be able to exert more control over its operations and reduce the risks associated with property rights, brand image, overpricing, etc.
Dunning (1993) also suggested four main types of FDI classified according to their prime investing motivation - market-seeking FDI, resource-seeking FDI, efficiency-seeking FDI and strategic asset-seeking FDI. This will be further discussed later in the thesis.

Dunning’s OLI paradigm, as already mentioned, has been criticized throughout the years. One of the main criticisms is that it is not an actual theory but rather a framework because it cannot fully explain the FDI matters. It is considered by some scholars to be too general and broad, therefore it is rather a paradigm than a whole theory (Bevan and Estrin 2004). Dunning (2001) pointed out the advantage of the eclectic paradigm is that the factors it uses are derived from other FDI theories and new frameworks would rather complement it than compete with it. He argues that the used variables would help better explain the processes associated with FDI. Another shortcoming of Dunning’s paradigm is that it only suggests explanation of conditions for market-oriented FDI but not for export-oriented FDI. In order to explain the latter type of FDI additional factors must be taken into consideration (Han and Brewer 1984). It is also considered that Dunning in his paradigm cannot give answer to when an investment should take place. OLI paradigm does not deal with firms’ size either. Two firms that meet OLI criteria/advantages equally may not be in the same position in entering a market due to one firm being larger than the other one.

All the above said, it can be concluded that Dunning’s Eclectic paradigm demonstrates that OLI advantages will vary from company to company and from country to country. Therefore, the specifics of firms’ type of production, strategy, objectives and decisions will depend on internal and external factors.

Authors have chosen to apply Dunning’s OLI paradigm in this thesis by using three case studies and then making comparisons to one another, thus concluding what the underlying motives and determinants are, that US, Japanese and EU automobile companies take into consideration when deciding to invest in the Chinese automobile industry. This thesis does not try to give answer to when a firm should go abroad but rather who, where and how. That is another reason for the choice of the OLI paradigm as a basic framework for this paper.

To sum up, the theories of Hymer and Kindleberger, Buckley and Casson and Dunning are somewhat consistent and complimentary with one another. Dunning’s eclectic paradigm might be considered as most developed of all since it encompasses aspects of the other
theories thus providing better explanation to FDI activity. As already mentioned, the OLI paradigm along with Hymer’s and Kindleberger’s, Buckley and Casson’s theories are considered to explain only horizontal FDI and not vertical FDI. On the other hand, Vernon’s product life cycle theory better explains export-oriented FDI.

2.3 FDI Motives and Determinants

2.3.1 Motives (Types of FDI)

In order to fully examine FDI behavior we must firstly understand the motives at the core of every investment. Probably, the best-known classification of FDI motives is the one developed by Dunning (1993). He points out the existence of four main types of FDI and behind every one of them lies a certain motive. It is widely considered that the first two types motivate new FDI while the last two would rather motivate subsequent/secondary FDI:

- **Market-seeking FDI** – the main motivation for investment here is the size of a particular market and its growth potential. Other factors that might encourage this kind of FDI could be better adaption of goods to local needs and preferences, avoiding costs associated with serving the market from distance, following customer or suppliers, host country’s favorable investment policy etc.

- **Resource-seeking FDI** – this type of investment occurs when the firm wants to secure access to particular resources that might be non-existent, scarce or cheaper (natural resources, raw materials, unskilled labor, technological and managerial capabilities) in their home country.

- **Efficiency-seeking FDI** - occurs when: either firms “take advantage of differences in the availability and costs of traditional factor endowments in different countries” or they “take advantage of the economies of scale and scope and of differences in consumer tastes and supply capabilities” (Dunning 1993, p. 60).

- **Strategic asset-seeking FDI** – this kind of investment is aiming at acquiring some attractive assets, especially in highly-technological industries.

Other authors take Dunning’s taxonomy and use it as a base for further discussions on FDI motivation classifications. Shatz and Venables (2000) suggest that there are two main types of FDI activity - “horizontal” or “market-seeking” FDI and vertical” or “production-cost minimizing” FDI. The latter can also be found in other authors’ research as “resource-seeking” FDI. The main reasons for market-seeking FDI are to better serve the local market,
be more competitive and reduce costs related to exports such as tariffs and transportation. The larger the local market, the more likely is for market-seeking FDI to replace exports. This type of FDI will also be chosen instead of exports if the costs of setting up a local production facility are less than costs related to exports. Resource-seeking FDI will be motivated by lower-cost inputs. What matters here is not the size of the market but rather the difference in prices of raw materials and resources. Shatz and Venables (2000) suggest that this type of FDI is export-oriented.

Zhang (2000b) also classifies two main types of FDI according to their primal motivation. Market–oriented FDI will be motivated by the market size of host countries and will aim at setting up local manufacturing in order to better serve these markets. On the other hand, cheaper labor and resources will more likely attract export – oriented FDI.

Li (2005) categorizes FDI according to their motivation into market-oriented, export-oriented, resource-oriented, efficiency-seeking-oriented, production-oriented, and trade-facilitating-oriented FDI. Once again, the focus is on the motives and determinants mainly for market and export – oriented FDIs. He argued that Chinese large market size, faster economic growth and high density of population would attract more market-oriented FDI while cheap resource abundance (especially if these resources are immobile) will draw more export-oriented FDI. Li (2005) gives as examples for market-oriented investments, FDI from US, EU and other developed countries. He continues by arguing that FDI from Asian countries are mostly export-oriented.

Birsan and Buiga (2009) indicated that market-oriented FDI are common for more developed countries and would aim at tapping the growth potential and demand of the host market. They also called this type of FDI activity horizontal integration.

It can be concluded that many authors classify FDI according to their motivation into market–oriented and resource–oriented (also known as export–oriented).

2.3.2 Determinants
In this thesis, the authors will identify and discuss determinants (authors may use drivers as a synonym for determinants) according to the main investment motives (market–oriented and export–oriented FDI). The authors will start by listing and briefly explaining major FDI determinants for each of the investment motives.
Market size is widely cited as one of the most important determinants of market-oriented FDI. The most common measure for market size is the gross domestic product (GDP) or GDP per capita. Zhang (2000), Wei and Liu (2001) and Li (2005) found that in attracting inward FDI, market size plays a major role. If a country experiences rapid economic growth it would create a larger local market and thus would pull more FDI. Zhang (2000) and Wei and Liu (2001) and Li (2005) concluded that large and fast-growing markets are preferred destinations for market-oriented FDI. Shaukat and Wei (2005) argued that most of the empirical results show that market size is the most important determinant for investing in China even for FDI other than market-oriented. They found that US and EU investments are mostly attracted by China’s large market size and growth and are market-oriented, while Asian investments are usually export (resource)-oriented. This was also noted by Li (2005). He pointed that the larger the market size and growth, the more prospects for a firm to exploit its ownership advantages. It is also argued that export-oriented FDI will also benefit from larger markets mainly because larger markets provide larger economies of scale and spillover effects (OECD 2000).

Labor cost is probably the most relevant determinant when speaking about resource-oriented FDI. Market-oriented FDI would more likely be attracted by the quality of human capital rather than its cost since companies would neither be willing to invest much resource into training labor nor to threaten the quality of its products/brands by hiring unskilled labor. Swain and Wang (1995), Liu et al (1997) and Li (2005) found that cheap labor is an underlying factor for investing abroad. Wei and Liu (2001) proved that low wages attract more FDI in China, especially in manufacturing industries such as automobile assembly. According to Andresossos-O’callagham & Wei (2003) labor intensive industries will more likely be affected by low labor costs. Li (2005) also pointed that there are some empirical studies, which argue that low labor wage is not an appropriate measure since lower wages might mean lower productivity. In this line of thoughts, Sun et al (2002) found that for Chinese FDI inflows low labor cost was positively related before 1991 and negatively related after 1991. It is also indicated that with the future globalization processes (liberalization of trade, faster emergence of new technologies and innovation trends), the benefit of low labor wages is becoming less important in attracting FDI. Xu, Liu and Qui (undated) also stated that the cost of labor is still playing an important role in FDI decision-making, but in recent years, labor quality is getting more and more decisive, especially in terms of EU and US FDI.
inflows. Based on the assumption that increased FDI inflows will likely increase wage level and that the higher the wages, the more qualified and skilled the labor force, Li and Park (2006) pointed that wage level is positively related to FDI inflows. Low labor cost is more important for Asian FDI than US and EU FDI (Shaukat and Wei 2005). Zhang (2000) indicated that for US FDI, low wage level is regarded to be insignificant. However, Shaukat and Wei (2005) found that for some US and EU manufacturing companies low labor cost is important. They also concluded that low labor cost is not a sustainable advantage, especially for Chinese market, since economic growth and FDI increase wages and other neighboring countries are abundant with cheap labor force and FDI incentive policies as well.

Political instability. Most of the empirical literature finds that political instability can play a major role in discouraging inward FDI. However, Swain & Wang, (1997), Zhang (2002) and Andreosso – O’Callaghan & Wei (2003) suggested an insignificant relationship between political factors and FDI activity. Shaukat and Wei (2005) found mixed results on whether political stability would attract FDI. However, many companies regard political instability as a major barrier for FDI. Lankes and Venables (1996) argued that political stability is a strong determinant for FDI activities in transition economies.

Geographic and cultural closeness. The closer the host market, the more FDI it will attract from the source country (Grosse & Trevino 1996; Wei and Liu 2001). Closeness between FDI host and source countries will likely reduce costs (transportation and monitoring costs), uncertainty, exposure to risk, etc. (Shaukat and Wei 2005). Export-oriented FDI are assumed to be negatively affected by geographic distance since this type of investment is only possible if the transportation cost is low enough not to offset the decrease in production costs (Lim 2001). This statement is to prove that most of the Asian FDI are export-oriented (geographic closeness = low transportation cost) while US and EU FDI are barely affected by the large distance because they are mostly market-oriented. On the other hand, today’s rapid development of information and communication technologies is likely to lessen the impact of geographic distance. This is further supported by the findings of Liu et al. (1997), who argued that geographic proximity has little effect on Chinese inward FDI. Liu et al (1997) and Zhang (2001) found positive relationship between host and source countries in terms of cultural proximity, especially for Hong Kong FDI in China. In terms of cultural closeness, it is more likely for a company to invest in a foreign country if they share the same or similar languages,
have common legislation or their traditions, tastes and preferences are similar. Since all these similarities would facilitate any business endeavor it could be concluded that the closer a country is in terms of culture and distance the more market-oriented FDI it would attract simply because it would be easier and cheaper to exploit the host market with similar products/services.

**Government incentive policies and trade openness.** It is considered that incentive policies of host governments are positively related with FDI attraction (Zhang 2002, Li 2005, Liu 1999, Wei 1999 and Shapior and Globerman 2003). Sun et al. (2002) observed that government incentive policies are more important for attracting FDI in developing countries rather than in developed countries. The WTO membership of China further opened its economy thus providing foreign investors with more favorable factors. Shaukat and Wei (2005) found that investment incentive policies would encourage companies’ investments, especially in automobile, telecommunications and electronics industries. Bloningen (2005) argued that different taxes would affect FDI activity in different ways. For example, Desai et al. (2004b) indicated that business related indirect taxes would have a similar effect on FDI as a corporate income tax. Lim (2001) suggested that export-oriented FDI will be more sensitive to favorable investment tax policies than market-oriented FDI since they are cost-minimizing focused. Market-oriented will tend to favor other incentives such as protectionist policies.

**Infrastructure** (such as communication network, power supply, transportation system) is another important determinant that may define FDI inflows to a country. The more developed and better the infrastructure, the better the production and distribution processes will be. Therefore, Li (2005) suggested that better infrastructure would attract more FDI inflows. Xu, Liu and Qui (undated) also indicated that the level of completeness and quality of the infrastructure would positively affect FDI attraction. Export-oriented FDI will benefit from developed infrastructure since it largely depends on low transportation costs, especially in countries with low labor cost.

**Legal system and institutions.** Li et al (2004) argued that if a country’s legal system and institutions are transparent and just then people will tend to rely on the public laws and rules to protect their business endeavors. On the other hand, if the legal system and institutions are unfair and not equal to all, then people would rather rely on personal relations (even
corruption) in order to govern and protect their businesses. In the latter case, foreign investors will be put in a disadvantaged position against local companies mainly because they do not have the personal relations of domestic firms and thus the legal system will have a negative impact on their business activities. In this line of thoughts, corruption will have a negative impact on FDI inflows (Khamfula 2007 and Shang-Jin 2000). In general, such things as red tape, restrictive requirements (local content requirements, mandatory joint partnerships, etc.) will make a country less attractive for FDI inflows. One of the most important features of legal system recently is the issue of property rights protection, especially in the case of China. Obviously, if a country’s legal system and institutions are not effective and good enough, firms will be forced to spend more resources and time on protecting their property and rights. This will eventually lead to less productivity and will discourage new FDI (Bloningen 2005). He also pointed that poor institutions and legislation will inevitably result in poor infrastructure thus leading to less profit and ultimately less FDI. This is particularly relevant for less-developed countries. These determinants as well as political stability are difficult to quantify thus making them hard to measure. Gathering information from surveys and interviews is probably the only way to assess the effect of these determinants.

*Exchange rate* shows mixed results on FDI inflows. It is favorable to FDI inflows in cases when the home currency is stronger than the host currency. On the other hand, this scenario will mean that the host currency is in depreciation against the home currency and therefore it will decrease returns on investment (if most of the profit is not reinvested but rather returned to home country) and as a consequence might deter FDI (Li, 2005). Bloningen (2005) indicated that FDI, more than any other type of investment, is more unaffected over time by volatile exchange rates. Of course, this will depend on the corporate strategy and goals of the investing firm. Froot and Stein (1991) found that country’s currency depreciation would attract FDI inflows. The more volatile an exchange rate is, the less FDI inflows will occur.

*Interest rate and inflation* are considered to have negative effects on attracting FDI since it may increase production, capital and labor costs (Li, 2005). Botrić and Škuflić (2006), on the other hand, estimated that inflation have is insignificant on FDI inflows in Eastern and Central European countries. As a whole, interest rate and inflation are a sign for economic stability and FDI tends to favor such countries.
Agglomeration economies are a determinant, which is relevant for countries that attract a great deal of FDI. Tseng and Zebregs (2002) indicated that the more investments in a certain area, the greater chance there is for other investors to follow. Xu, Liu and Qui (undated) argued that agglomeration economies will have a crucial role in attracting new FDI mostly because concentration of economic activities might bring externalities such as technology and knowledge spillover effects, closeness to intermediary goods, better infrastructure, more qualified workers, etc. Agglomeration of firms will make firms more competitive and will improve firms’ productiveness because of the reduced transaction costs in finding and obtaining the needed qualified labor force (Li and Park 2006). FDI inflows will be positively affected by clustering of firms, especially if these firms are in the same industry as the investing foreign company (Shaver 1998). On the other hand, in recent studies it is argued that strong firms with superior know-how and technology will avoid locating near to weak firms as weak firms will benefit from the spillover effects (Shaver and Flyer 2000). Li and Park (2006) found that clustering of domestic firms, especially in China, is negatively related to FDI inflows presumably because of property rights issues and spillover effects.

Since this thesis will take into consideration and analyze determinants, which affect FDI inflows in China (particularly in the automobile industry) the authors apply a table with a description of literature in determinants of FDI in China (Ho undated):

**Table 1 Recent Description of Literature regarding Determinants of FDI in China**

<table>
<thead>
<tr>
<th>Topic and Author</th>
<th>Explanatory variables</th>
<th>Empirical results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determinants of the location of FDI in China; Cheng and Kwan (2000);</td>
<td>Labor wage; Infrastructure level; Per capital income; Education level; Policy designations;</td>
<td>Regional income, infrastructure, policy designations (i.e. SEZs) have a positive effect; Wage cost has a negative impact on FDI; Education level is not statistically significant on FDI;</td>
</tr>
<tr>
<td>Pattern of FDI location across China; Coughlin and Segev (2002);</td>
<td>GDP; Wage; Labor productivity; Length of highway; Population working in SOEs;</td>
<td>Economic size, labor productivity and coastal location attract FDI; Higher wages and illiterate rates deter FDI;</td>
</tr>
<tr>
<td>Determinants and Market size;</td>
<td>Inward FDI was motivated by the</td>
<td></td>
</tr>
<tr>
<td>Determinants of FDI in China; Dees (1998);</td>
<td>Labor wage; Exchange rate; Stock of patents;</td>
<td>Large Chinese market, the low cost of labor force, real exchange rate, and degree of innovation;</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Determinants of FDI from U.S. and Japan in China; Fung, Iizaka, Lee and Paker (2000);</td>
<td>GDP of provinces; Labor wage; Kilometres of roads; Kilometres of railways;</td>
<td>GDP and Wage rate affect the inflow of FDI; SEZs and Open Coastal Cities (OCCs) have great advantages in attracting FDI; FDI from U.S. and Japan are influenced by labor quality;</td>
</tr>
<tr>
<td>Location choice of HK and U.S. direct investment in China; Fung, Iizaka, Lin and Siu (2002);</td>
<td>GDP; Average wage; Number of student higher education; Kilometres of roads and railway; Number of SEZs; Number of OCCs;</td>
<td>U.S. investments are more sensitive to local demand and HK investment is more sensitive to local labor cost; U.S. investments in China tend to be more capital- and skilled- intensive than from HK; Rise in regional labor quality raises both investment inflows;</td>
</tr>
<tr>
<td>Location decision of manufacturing FDI in China; Ng and Tuan (2003);</td>
<td>Transaction costs; Firm size; Trade constraints;</td>
<td>Transaction costs, firm size and quota were all significant effects to firm location choice, especially in firm size factor;</td>
</tr>
<tr>
<td>Interrelationships between FDI and economic Variables; Shan (2002);</td>
<td>Output; Labor supply; Labor cost; Energy consumption; Exports; Exchange rate; Regional income Difference;</td>
<td>FDI and output growth affect each others, a two way-causality was found between FDI and output growth; FDI is influenced by regional income differences; FDI in China was found to be sensitive to the changes of a number of economic variables;</td>
</tr>
<tr>
<td>Determinants of foreign direct investment across China; Sun, Tong and Yu (2002);</td>
<td>Market size (GDP); Labor cost; Domestic investment per worker; Labor quality; Agglomeration Infrastructure;</td>
<td>Wage has positive relationship with FDI before 1991 but has a negative relationship after then; Provincial GDP has no significant relationship before 1991 but becomes highly significant after 1991; Labor quality and infrastructure are important determinants of the distribution of FDI;</td>
</tr>
<tr>
<td>Tax rates and tax incentives and FDI into certain designated areas in China; Tung (2001);</td>
<td>Agglomeration economics (population); Unemployment rate; Wage rate; Infrastructure;</td>
<td>Zones and cities with lower tax and greater tax incentives attract more FDI; The 1991 tax laws are effective in increasing FDI during 1992-1994</td>
</tr>
</tbody>
</table>
### 2.4 Distance Determinants

In this thesis, authors will apply a framework called CAGE developed by Pankaj Ghemawat and explained in his famous article “Distance still matters: The hard reality of global expansion”. Ghemawat (2001) argues that a company should analyze the probable impact of distance on their international expansion. Ghemawat (2001) did not agree that technologies and developing global communication shrink the world into a homogeneous place when it comes to business. He stated that distance still matters and a company cannot take into consideration only determinants such as market size and growth. He noted that companies often measure the attractiveness and opportunities of foreign markets by their sheer market size and growth potential. They often neglect other factors, which might prove to be crucial for companies’ international expansion. It is essential to understand that it does not only come to geographical distance but also cultural (religion, race, language, social norms and tastes), administrative or political (currencies, trading arrangements) and economic distance (income, costs) and hence the name CAGE. The more two countries differ in CAGE factors, the riskier it becomes for investing in one another. Ghemawat (2001) indicated that, for example, a common currency would increase trade by 340%. Distance factors will affect different
industries differently. As Ghemawat (2001) argued that religious differences, for example, would have a great impact on people’s food preferences but it will have no impact on their choice of cement. Below each dimension of distance will be briefly explained.

- **Cultural distance** – indicates the distance in terms of religion, language, customs, tastes and preferences, social norms and beliefs, etc. Trade between two countries will be three times bigger if they share a common language, all other things being equal. Ghemawat (2001) pointed that some of the determinants of cultural distance are more obvious such as language and others are more subtle like social norms. Cultural aspects will have deeper effect on choices related with products from food industry and consumer durable industries (automobiles, household appliances, etc.).

- **Administrative or political distance** – Here attributes such as historical (former colonies, for example) and political (regional and world trade memberships, for example) associations will play decisive role. Government policies of host and home countries will also influence foreign investments, although host government’s policies will exert more influence. Ghemawat (2001) argued that host governments are more likely to implement protective measures such as tariffs, quotas, restriction on FDI, subsidies for home companies and favorable regulation for home companies, if the domestic industry meets one of the following criteria – it is a large employer, national champion, important to national security, produces staples, exploits natural resources, produces an “entitlement” good or service, involves high-sunk costs. In addition, host country’s institutional infrastructure will also have its positive or negative impact on investors’ decisions. For example, corruption, political instability and social conflicts will damper investments.

- **Geographic distance** – Ghemawat (2001) indicated that when it comes to geographic distance companies should not only consider the physical distance between home and host market but also physical size, average internal distance to borders, access to waterways and oceans, topography, host country’s transportation and communication infrastructure, etc. Obviously, the bigger the geographic distance, the higher the transportation costs. Therefore, perishable, fragile and bulk goods will be significantly affected by geographic distance. Firms, which find large distances as a barrier to trade,
will most likely switch to FDI instead but this might be inconsistent according to recent studies.

➢ *Economic distance* – Ghemawat (2001) indicated that among all economic attributes, consumers’ income would play the most instrumental role when measuring economic distance between two countries. Firms that put more focus on economies of scale, standardization and experience will tend to chose partner countries with similar economic profiles. The main reason behind this is that these firms will adopt the same business model in order to exploit their competitive advantage. Otherwise, it will be difficult to make it work if big differences in countries’ economic profiles exist. Very importantly, Ghemawat (2001) pointed that in some industries (footwear and clothing industry, for instance) competitive advantage would come from economic arbitrage i.e. the utilization of cost and price differentials between markets. The distance attributes and their impact on different products and industries are visualized in table 2 below.

**Table 2 The CAGE Framework**

<table>
<thead>
<tr>
<th>Attributes creating distance</th>
<th>Cultural distance</th>
<th>Administrative/Political distance</th>
<th>Geographic distance</th>
<th>Economic distance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Different languages;</td>
<td>absence of colonial ties;</td>
<td>physical remoteness;</td>
<td>differences in consumer incomes;</td>
</tr>
<tr>
<td></td>
<td>Different ethnicities;</td>
<td>absence of shared monetary or political association;</td>
<td>lack of a common border;</td>
<td>differences in costs and quality of:</td>
</tr>
<tr>
<td></td>
<td>Lack of connective ethnic or social networks;</td>
<td>political hostility;</td>
<td>lack of sea or river access;</td>
<td>• natural resources</td>
</tr>
<tr>
<td></td>
<td>different religions;</td>
<td>government policies;</td>
<td>size of country;</td>
<td>• financial resources</td>
</tr>
<tr>
<td></td>
<td>different social norms;</td>
<td>institutional weakness</td>
<td>weak transportation or communication links;</td>
<td>• human resources</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>differences in climates;</td>
<td>• infrastructure</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• intermediate inputs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• information or knowledge</td>
</tr>
</tbody>
</table>
It is important to remember that taking into consideration the different attributes of distance is only the first step. Companies should analyze how their own characteristics and features will interact with different distance factors and then make the right choices. This thesis will attempt to do so by taking three company case studies and then applying the CAGE framework in order to analyze if these companies’ choices were intact with distance attributes.

2.5 Summary
This chapter provided readers with the most recognized definitions of FDI by OECD, IMF and UNCTAD. These definitions were found to be consistent with one another by the authors, but for the sole purpose of this thesis, the definition given by OECD will be used from now on in the subsequent chapters.

Secondly, a brief overview and explanation of the main FDI theories was given. The most influential one, which is applied in today’s research, is the OLI paradigm developed by Dunning. Using three case studies, this thesis will apply the OLI paradigm. The purpose will be to understand and examine different motives and determinants that influence investment
decisions of foreign carmakers. Therefore, some of the major motives and determinants of FDI were mentioned and discussed in this chapter in order to examine what types of FDI are most common for Chinese auto industry. The authors of the thesis, based on relevant research, classified two main types of FDI – market-oriented and export-oriented.

Finally, this chapter provided an overview of Ghemawat’s CAGE framework and its distance determinants. By taking three foreign companies and their characteristics, authors will try to analyze how various distance dimensions influenced their investment decisions.
3 Methodology Chapter

3.1 Introduction
The literature review chapter has presented the theoretical background which draws the fundamental basis for this particular thesis and the analysis to be performed. The purpose of the methodology chapter, on the other hand, is to describe the philosophy behind the research, the approach undertaken and the strategy and specific techniques which have been adopted with regard to the collection and interpretation of the data before drawing specific conclusions at the end of the paper.

3.2 Purpose of the research
With this master thesis the authors will try to distance themselves from the surface problems and what is more we will try to analyze the reasons behind.

In other words, in order to fulfill its first objective and namely to identify and examine the various motives and determinants that influence foreign carmakers to invest in China’s automobile industry, this paper will analyze extensively the Chinese automobile industry and market with regard to three of some of the biggest players in this market: Volkswagen, General Motors and Toyota. What is more, the advantages and problems that these companies have encountered with regard to their business behavior will be taken into consideration.

Another aspect of this thesis will be to examine what types of FDI are most common in China’s car industry according to Dunning’s typology. This paper will also analyze how various distance dimensions (CAGE framework) influence on business behavior and investment/entry decisions in Chinese auto market.

Of no less importance will be to describe and investigate new sustainable trends that have been emerging for several years and will be shaping the development of the Chinese automobile industry in the near future. The authors of the thesis will aim to give recommendations with regard to what strategies should companies adopt in the light of these trends and challenges.

3.3 Research Methodology
There are two main categories of research methodology: quantitative research and qualitative research. Generally, quantitative enquiries examine numerical data, whereas qualitative enquiries examine narrative data (Easterby-Smith et al. 1991). With regard to the purpose of
the research, described in the section above, the research methodology which will logically be adopted in this paper is qualitative enquire.

According to Denzin and Lincoln (2000) qualitative enquiry is a situated activity that places the observer in a world that consists of a set of interpretive material practices which make the world visible. Preissle (2004) defines qualitative research as “a loosely defined category of research designs or models, all of which elicit verbal, visual, tactile, olfactory and gustatory in the form of descriptive narratives like field notes, recordings or other transcriptions from audio-and video-tapes and other written records and pictures of films.” In other words, qualitative enquiry is an investigative process where the researcher explains a social phenomenon by collecting and interpreting a range of empirical material, e.g. case study, personal experience, interviews, etc, that “describe routine and problematic moments and meanings in individuals’ lives” (Denzin and Lincoln 2000).

3.4 Research Paradigm

Research philosophy takes a very central part in the business and management research. According to Saunders (2003) the research philosophy is the way the researcher reflects on the development of knowledge. What is more, a research paradigm “is a framework that guides how research should be conducted, based on people’s philosophies and their assumptions about the world and the nature of knowledge” (Collis and Hussey 2009, p.55)

All that being said, the way a research is being performed is greatly affected by the applied research paradigm and the philosophy behind. It is very important a research paradigm to be identified and selected at the beginning of the research because it guides the choice of methodology which will lead to a variety of associated methods for collecting and analyzing data throughout the research. The two main research paradigms which dominate the literature are positivism and interpetivism.

If the research paradigm reflects the principles of positivism then the researcher has the standpoint of a natural scientist. The researcher prefers to work with an observable social reality and the results of such a research are mainly law-like generalizations similar to the ones obtained by the physical and natural scientists (Saunders, Lewis & Thornhill 2003). The researcher that follows the positivist paradigm is an objective analyst who puts an important emphasis on a highly structured methodology in order to facilitate replication. Of no less importance is the focus on quantifiable observations which result in statistical analysis. Last
but not least, the researcher who follows the positivist paradigm is independent of the research and does not affect, nor is affected by the subject matter of the research (Saunders, Lewis & Thornhill 2003). Usually positivism uses large samples, focuses on hypothesis testing, produces precise, objective, quantitative data and the results are with high reliability.

Interpretivism on the other hand tends to use small samples, focus on the generation of theories, produce rich, subjective, qualitative data and the results drawn are with high validity. Under the interpretivism paradigm the researcher needs to recognize the subjective reality of the study in order to be able to understand the research participants’ motives, actions and intentions. According to Boland (1995) one of the main philosophical bases of an interpretive research is phenomenology. Phenomenological studies distinguish themselves from the common survey researches in a way that by making detailed comments about particular situations they do not direct generalizations. The dependent and independent variables are not predefined in the interpretive research, what is more the interpretivism paradigm concentrates on the full complexity of what is making sense as the situation emerges (Kaplan and Maxwell 1994).

The research paradigm followed in this thesis is interpretivism because the objective of the research described earlier above is to answer why and how questions. What is more the existence of multiple realities has been realized, full understanding of the topic has been generated and the rich complexity of the subject has been captured. Of no less importance is the fact that, in order thorough analysis to be performed with regard to foreign direct investments in the Chinese automobile industry, in particular, main drivers, distance determinants and sustainable trends, various tools and theories are employed as a means to assist the analysis. These include PESTEL analysis (of the Chinese automobile industry), Porter’s five forces model, Dunning’s eclectic approach (OLI theory) and the CAGE framework.

3.5 Research Approach
The two main approaches to reasoning that may result in the acquisition of new knowledge are deduction and induction. According to Saunders, Lewis and Thornhill (2003), deductive reasoning, on the one hand, is a research approach which involves the testing of a theoretical proposition by the use of a specifically designed for the purpose of its testing research strategy. Inductive reasoning, on the other hand, involves the development of theory as a
consequence of the study of empirical data.

The first main difference between deductive and inductive reasoning is that deduction focuses on scientific principles, while according to Saunders, Lewis and Thornhill (2003) with inductive reasoning the researcher gains understanding people attach to events.

The second major difference between the two approaches is that deduction is linked to the collection of quantitative data, whereas very often qualitative research follows an inductive reasoning. Furthermore, deduction is a highly structured approach, while induction is more flexible in order to allow the change of the research emphasis as the research advances (Saunders, Lewis and Thornhill 2003).

Last but not least, following deductive approach to reasoning the researcher remains independent of the study, whereas inductive reasoning makes the researcher part of the research process. What is more, deduction puts a great emphasis on the need to select samples of sufficient size in order conclusions to be generalized, while inductive reasoning is less concerned with the necessity to generalize (Saunders, Lewis and Thornhill 2003).

With respect to the comparison of the two main research approaches to reasoning, provided above, the purpose of the research in this master thesis, the chosen research methodology and the research philosophy which is followed in this paper, the authors of this master thesis have come to the conclusion that induction is the more appropriate research approach and it will be applied in this work.

### 3.6 Research Strategy

There are various research strategies which could be employed in the research process. Among them are survey, experiment, ethnography, action research, case study and multiple-method approaches. Some of these research strategies belong to the deductive approach to reasoning, other to the inductive.

Most often qualitative enquiry with an inductive approach to reasoning takes the form of a case study (Hyde 2000). This research strategy is also adopted here as being the most suitable with respect to the main purposes and objectives of this master thesis.

Yin (1994, p. 3) defines the case study research strategy as a method through which a contemporary phenomenon is investigated within its real-life context, in particularly when the
boundaries between phenomenon an context are not clearly evident and in which multiple sources of evidence are used. Yin (1994) further elaborates on the fact when case study is the preferred research approach and it is particularly appropriate when questions of process such as “how” or “why” are being asked.

Usually, case study is used to investigate on a single phenomenon (the case) with the help of a range of methods through which in-depth knowledge is being obtained. Therefore data triangulation is a common data collection method with regard to the case study research strategy. As a result case study is not simply a data collection method or just a design aspect, it is rather a sophisticated and very comprehensive research strategy. What is more, it is a systematic way of in-depth investigating on what is happening, gathering and analyzing the associated information and finally drawing conclusions and presenting the results.

3.7 Cases Selection
The case study research strategy is an excellent way through which rich information and detailed analysis can be provided with respect to the business operations of some of the biggest international players in the Chinese automobile industry. Furthermore, through the comparison of several cases the different organizational behavior across multinational corporations can be identified. Therefore, three of the strongest foreign multinational companies dominating the Chinese automobile market have been chosen as a basis for comparison, evaluation and discussion with respect to the objectives of this paper.

The three companies which are emphasized on in this work are: the German company Volkswagen, the American car company General Motors and the Japanese Toyota. Being founded in three completely different countries and therefore sharing diverse ideas of how business should be done in a foreign country, these three multinationals are ideal for an in-depth analysis of the motives and determinants behind their decision to enter the Chinese car market, the cultural distance between the home and the foreign market and business practices and the vision of sustainable trends in terms of new technologies in the sector each of the three companies contemplates on.

The chapter which comes next examines the Chinese automobile market with the help of a thorough PESTEL analysis and the implementation of Porter’s five forces model. In the later chapters the authors describe and discuss the business operations in the case studies of three
foreign investors in the Chinese car market and namely Volkswagen, General Motors and Toyota with regard to the objectives of this master thesis.

**3.8 Data Collection Methods**

The research in this paper is based to a large extent on secondary data due to the characteristics of the research. Of no less importance is the fact that, this thesis studies the situation of the Chinese automobile industry through the perspective of three of the major foreign investors in the sector which makes the topic rather broad on a macro level and if primary research is to be conducted, e.g. through interviews, employees of the high management structures of the foreign companies should be involved in the research. This makes the employment of research based on primary data a very difficult task.

However, if primary data is being compared to secondary data, obtained from a wide range of sources which provide a very deep scope of relevant records, secondary data offers a bigger and more significant range of cover on the implied research questions.

Nevertheless, the work with secondary data may involve a few problems, such as the existence of unreliable sources of information and such that this information is out of date. In order problems of this kind to be reduced, the study selects the latest available information which presents the current market characteristics. Of no less importance is the fact that, the up to date data has further been checked and selected in terms of reliability. The key secondary data with regard to the examined companies and the industry has been obtained through the official corporate websites of the three multinational giants presented in the paper. Further information has been selected from the websites of the Central Intelligence Agency (CIA), the World bank, Chinese Ministry of Commerce and Ministry of Information Industry, the site of the WTO has also provided relevant data together with many other internet websites and various academic articles supporting the topic with important details.

As a result, the main objective of the research strategy, applied in this master thesis, is with the help of the large amount of secondary data a thorough analysis to be performed relevant to the purposes of this paper. Of no less importance is the fact that a great amount of data and materials have been rationally organized and carefully analyzed in order valid arguments to be formulated at the end.
3.9 Summary of Methodology
The methodology chapter gives a thorough description and carefully explains the methodology which is being followed in order the objectives of this paper to be met. A cohesive research design is being presented and namely a qualitative research methodology following the interpretivism research paradigm, sustained by inductive research approach and case study as a research strategy which is further elaborated by a relevant and reliable secondary data.

The coherent research is being supported by important and thoroughly explained reasons behind the chosen design of the methodology. Of no less importance is the fact that, it has further been facilitated and sustained by the implication of several central frameworks such as the PESTEL analysis, Porter’s five forces model, Dunning’s eclectic approach (OLI theory) and the CAGE framework.
4 The Investment Environment of the Chinese Automobile Industry

4.1 Introduction
In this chapter the authors of the thesis will describe and analyze the investment environment of the Chinese automobile industry on a macro and micro levels. In order to explain the forces to which foreign firms’ operations are exposed in the Chinese car market in terms of macro-environmental factors and moreover, in order to be able to discuss how these factors affect the attractiveness of the Chinese car industry for foreign direct investments, the authors of this paper will apply the PESTEL approach:

- Political factors;
- Economic factors;
- Social/cultural factors;
- Technological factors;
- Environmental factors;
- Legal factors.

In terms of the investment environment of the Chinese automobile industry on a micro level, Porter’s five forces model will be applied. This will assist the authors to describe and analyze the state of competition and the profit potential in the car industry in China. The analysis will be based on the five basic competitive forces:

1. Bargaining power of buyers;
2. Bargaining power of suppliers;
3. Threat of new entrants;
4. Threat of substitute products;
5. The intensity of rivalry between existing competitors in the market.

4.2 Brief Review of The Chinese Automobile Industry: Important Statistics and Facts from The Past and Today
The highly promising growth estimates have encouraged many of the world’s biggest car manufacturers to invest in the Chinese automobile industry. For more than 20 years, since the economic reforms of Deng Xiaoping, the Chinese annual economic growth rate has been around the remarkable 9.7% (Chinese International Economic Consultants 2001). Moreover, the growth rate of the car consumption has grown by 10.4% annually (Economic Intelligence Unit 2004).
Since China gained access into the World Trade Organization, many multinational car manufacturers have continued to expand their operations in the Chinese automobile industry with optimistic forecasts about the future development of this market (China Automobile Industry Yearbook 2004). In 2004 the Chinese government has introduced a new government policy in an attempt to cool the already intense economy. The new policy included restricted car loans and increased car insurance premiums (China Association of Automobile Manufacturers 2004). Another negative factor with a great significance in the automobile market is the increase of the oil prices. In other words, all these challenges have made the Chinese automobile industry not to look too optimistic at a time. Of no less importance, are the continuing challenges for the multinational automakers in China, in terms of the inefficiencies in: cost structure, marketing, related industry sectors, and increased competition with domestic companies. The Chinese automobile market has a great potential but in order for the foreign companies to be able to enhance all of it, they have to be more careful when choosing their location, what is more, the above mentioned inefficiencies should be reduced and the synergies should be increased. In this way the competitiveness of the multinational companies in this market will be improved (Hwy-Chang Moon 2005).

In terms of the Chinese automobile industry today, it has overcome the global financial crisis of 2008 by increasing production as well as sales in 2009 and 2010. This made China the world’s top vehicle superpower.

According to the data published in Datamonitor, in 2010 the entire Chinese automotive manufacturing industry has shown a growth of 1% to reach value of USD 174 billion. The industry’s compound annual growth rate (CAGR) in the period 2006-2010 has been 17.4%.

Table 3 China Automotive Manufacturing Industry Value: USD Billion, 2006-2010

<table>
<thead>
<tr>
<th>Year</th>
<th>$ billion</th>
<th>CNY billion</th>
<th>€ billion</th>
<th>% Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>91.5</td>
<td>620.2</td>
<td>68.9</td>
<td>30.5%</td>
</tr>
<tr>
<td>2007</td>
<td>119.4</td>
<td>809.3</td>
<td>89.9</td>
<td>11.2%</td>
</tr>
<tr>
<td>2008</td>
<td>132.7</td>
<td>899.8</td>
<td>100.0</td>
<td>12.9%</td>
</tr>
<tr>
<td>2009</td>
<td>172.3</td>
<td>1,168.1</td>
<td>129.8</td>
<td>29.8%</td>
</tr>
<tr>
<td>2010</td>
<td>174.0</td>
<td>1,179.3</td>
<td>131.0</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

CAGR: 2006–10 17.4%

Source: Datamonitor, 2011
In summary, with immense land area and population of more than 1.3 billion people, China, which in 2010 has become the second largest economic power in the world, is expected to concentrate on motorization and witness continuous growth of the automotive market. In this regard, the rise in vehicle production capacity is anticipated to continue (see Figure 2 below). In addition, the central government, which is encouraging a change from export demand to domestic demand to increase economic growth, is steadily stimulating its policy to enhance the vehicle industry, the rate of which currently surpasses GDP growth, as being an extremely strategic sector (China Automotive Industry Yearbook 2010).

Figure 2 - Change in Annual Vehicle Production Capacity by Type (1998-2010 Actual, 2011-2015)

Source: China Automotive Industry Yearbook 2010
4.3 Analysis of The Macro Environment of The Chinese Automobile Industry

4.3.1 Political Environment
As it has been mentioned above, in 2009 China has become the top vehicle superpower in the world. This has also made the Chinese automobile industry to continue its fast growth and become a pillar industry in the national economy.

It is a well-known fact that China has had an open door policy since the end of the 1970s. One reason for this has been to secure the financing for modernization with capital liberalization.

In order to attract foreign investment in the automobile sector, the Chinese government has provided the needed protection and privilege to the foreign automakers and made access in this industry easier. The joining of the World Trade Organization has opened the Chinese car market even more to the world. Many policies in the automotive industry have been relaxed and the tariff levels highly lowered. The large population of the country together with its increasing purchasing power, has made China extremely attractive to the big multinational companies in the sector.

The main purpose of the Chinese government in terms of its policy in the automobile industry is to encourage the development of its domestic car industry with the help and know-how of the foreign manufacturers. Therefore, in the recent years, the incentive policies of the Chinese government have enabled many of the domestic car producers to utilize foreign cars production platforms, engine technology and design in order their domestic car brands to compete with the foreign ones. What is more, in a joint venture between a Chinese and a foreign automobile manufacturer, the Chinese government has prohibited the foreign company to own more than 50% of the shares.

In March 2009, the State council of China has issued a new development outline (the Outline) for the automobile industry 2009-2011. The above mentioned Outline presents comprehensive development tactics including: industrial upgrading, technological enhancement and promotion of new engines (Yu&Yang 2010).

The three main objectives of the Outline are on the first place, production to be changed from low-end vehicle assembly to high-end manufacturing and products design. This tactic is expected to enable the automobile companies to compete more efficiently on a global scale.
Second of all, the industry is expected to place more attention on research and development of energy-saving and environmentally friendly vehicles. In terms of emissions reduction, the development of renewable energy automobiles is a key issue with respect to the protection of the environment and realizing environmentally friendly development for China in the future. Last but not least, the Outline presents the increase of the domestic vehicle demand as a key way in which the economic growth can be stimulated. In this respect, the government is expected to consider tax and financially incentive policies in order to encourage the consumers to purchase new automobiles.

To sum up, the Chinese automobile sector, which is supported by the central government of the country, is expected to play a very important role in the world’s automobile industry in the foreseeable future.

4.3.2 Economic Environment
It can be noticed that over the last two decades China has distanced itself from the centrally planned economic system towards the much more market oriented one. Since the initiation of the open policy, the country has experienced a rapid and continues economic growth and it has obtained a key role in the global market without a hesitation. This is summarized in Figure 3 below which presents the annual GDP per capita growth rate in percentages from the year 2000 to the year 2009.

**Figure 3 China’s Annual GDP per Capita Growth Rate in Percentages: Year 2000-2009**

Source: The World Bank, World Development Indicators
Of no less importance is the fact that China has become one of the world’s most attractive FDI destinations for most of the multinational automobile manufacturers. Figure 4 below shows the growth of FDI in the Chinese economy for the period 2000-2009. It can be seen that the amount of foreign direct investment through the years has steadily been increasing reaching its peak in 2008.

Furthermore Figure 5 summarizes the FDI growth rate in the time span between April 2009 and April 2010. As it can be concluded that the country remains a desired destination for foreign capital as FDI has grown by 24.7% in 2010 in comparison to one year earlier. According to China Daily, only in the first four months of 2010, the country has attracted foreign investments worth about USD 30.8 billion, which is about 11% increase with regard to 2009 (Qingfen 2010).

Figure 4 FDI in China in billion USD: Year 2000 to 2009

Source: The World Bank, World Development Indicators
In short, the big international vehicle manufacturers are attracted by the high profit potential of the automobile industry in China, due to the country’s booming economy at the moment, its large market size and dominating position in the global marketplace.

### 4.3.3 Social/Cultural Environment

China possesses many cultural traditions and habits that are much different from the ones of the Western countries. It is a well known fact that cultural differences highly affect the business practices of a country. Therefore, it is extremely essential for foreign companies to recognize and try to understand these differences when investing in China.

It is very important to be empathized on the fact that, the Chinese society is strongly influenced in its commercial activities, business ethics and organizational behavior by the Chinese concept of “relationship” called “guanxi” and is completely different from the Western concept of “relationship”. What is more, companies can gain competitive advantages by developing their networks of guanxi (Liang-Hung Lin 2010).

According to Boardman and Kato (2003) and Luo (2002), guanxi is regarded as the central notion of understanding the Asian society and its business behaviors. In its writings, Kipnis (1997) specifically points out that the formation of guanxi in the Chinese society involves complex social and affectionate networks within peers, families or friends and these networks comprise of three main elements, which are mianzi, affect and reciprocal favor.

Alston (1989) defines guanxi as one of the main dynamic characteristics in the Chinese society. It does not merely refer to a very special relationship between two people, but implies
an endless exchange of favors too. Therefore, the existence of guanxi relies on three elements: i) sharing identities and status with others in a group or mutually having an association with the same person; ii) actual connections and frequent contact between people and iii) getting close to someone by direct interpersonal interaction. Gunaxi is also regarded as interpersonal networks of reciprocal bonds.

According to the descriptions above, it can be concluded that interpersonal relationships in China are very abstract and are established by cultural-rooted criteria (Tsui and Farh 1997). Therefore, guanxi is considered by Xin and Pearce (1996) as a general and important element of culture and society. Of no less importance is the fact that, guanxi is the central power which promotes relationships between people or organizations. Guanxi is closely tied to life with regard to these Chinese organizations.

To sum up, the development of guanxi can be viewed as a major competitive advantage with the help of which competition can be faced and resource shortage can be overcome. It therefore becomes, in the Chinese society, the vital source of social capital (Lin 2007) and commercial activities. It is thus very wise of the foreign investors to consider finding local partners when initiating a business in China. Joint venture is therefore considered as the right entry mode strategy by many of the multinational automobile manufacturers not only due to administrative and political reasons, but what is more important, due to cultural differences.

4.3.4 Technological Environment
The encouragement policies implemented with regard to the automobile sector in China have led the domestic car manufacturers to make huge investments with regard to the improvement of the production facilities, safety testing systems and new technologies in the design. With this initiative China is making an effort towards the creation of its own standards. This is done in order Chinese car manufacturers to be independent from the patents held by foreign companies which are guaranteed by the new legislative implications with regard to intellectual property rights.

As mentioned earlier, China has realized that the reliance on low-end and labor-intensive manufacturing which use mainly imported technology is being no longer sustainable.
Therefore, the development of the automobile industry shall involve restructuring of the production and technological advancement.

The presented Outline by the Chinese government entails that passenger cars produced with domestically independent brands shall account for over 40% of the total car market, comprising about 10% (around one million) of the whole export production and sales in 2011. In this respect, the state intends to spend about 10 billion Yuan in order to support the automobile manufacturers in the upgrading of technologies in terms of the development of new car engines using alternative energies and recyclable batteries (Yu & Yang 2010).

The current shift in the China’s automobile industry policy from mere development, through emission control development, to enhancement of cleaner vehicle technology shows that the country is making a strong effort in order to balance the challenges of economic development, environmental protection and energy security (Gan 2003).

With respect to the new technological trends in the global automobile industry, the Chinese national policies and programs have been of great importance with regard to the implementation of cleaner vehicle technologies. However, in order the auto sector in China to become green there are still some challenges that should be considered. Such challenges are the high production cost of green cars, the construction of new infrastructure and the small immediate benefits to the consumers and manufacturers (Gan 2003).

The transition of the Chinese automobile industry towards cleaner vehicle technology shall not be expected to happen at once. However, this process has already been enhanced by the reinforcement of the vehicle emission standards. Of no less importance, is the stronger promotion of alternative fuel vehicles and the eventual transition to hydrogen and electric cars.

In summary, the Chinese government has already launched incentive policies for greener automobile production and purchases. It sees the investment in new infrastructure which supports the effortless use of electric vehicles as an initiative that will be highly beneficial in the long-term. The partnership between the government and the industry shall also become
stronger and what is most important the public awareness towards green vehicles has been raised.

4.3.5 Environmental Factors
The environmental factors in the Chinese automobile industry further supplement the new technological trends in the sector. The “green car” is a must which development is the tendency not only in China but in the whole world. The overconsumption of oil, the rising air pollution, the sound pollution caused by the traffic especially in the big cities and the lack of parking spaces to meet the rising demand of the growing number of cars on the roads, these are all factors that have to be considered and have a great impact on the environment with respect to the future prosperity of the global automobile industry everywhere.

4.3.6 Legal Environment
In terms of China’s legal and regulatory system, despite the numerous regulations and notices with respect to foreign investment in the country, it is a fact that transparency is the factor that is missing.

In the recent years the Chinese government has tried to make the legal and regulatory environment for the foreign investors less complicated, however many of the Chinese laws and regulations are still often unclear, confusing and difficult to understand.

According to the foreign investors the inconsistent, contradictory, ambiguous and subjective enforcement of many regulations and the lack of transparency are main problems in the investment climate in China. Therefore, no potential foreign investor should make endeavors into the Chinese market without thorough due diligence and professional advice (Icon Group International 2004).

4.4 Porter’s Five Forces Analysis of The Chinese Automobile Industry
In this part of the thesis the state of the competition and profit potential of the Chinese automobile industry will be analyzed through Porter’s five forces model (see Figure 6 below). As main buyers will be considered the dealerships in China, whereas as main suppliers the producers of raw materials and, components and parts which are ready to use.
Figures 7 to 12 below present main drivers of power in the Chinese automotive industry with respect to each of the five forces shown in Figure 6 above. The drivers depicted in the figures are considered to be the most important with regard to the chosen industry and are extracted from the Chinese industry profile in the Datamonitor database towards May 2011.

4.4.1 Bargaining Power of Buyers and Main Drivers for It
The figure below summarizes the main drivers which may weaken or strengthen buyers’ power in the Chinese automotive industry.

Figure 7 Drivers of Buyers’ Power in The Chinese Automobile Industry

Source: Datamonitor 2011
The fast economic development of China has increased the purchasing power of consumers together with the sophistication level of their needs and wants. What is more, the direction of government policy in the automotive sector directly and indirectly influences conditions in many ways, e.g., the regulations regarding environment’s safety or even the policies applied with regard to the credit system (Zhao 2005).

Buyer’s profile has been modified with the increase of private consumption as a result of the withdrawal in the Chinese economic life of state power. Today the key buyers in the automobile industry in China are dealerships, however the end-user customers have also high importance. The switching costs for the dealerships are extremely high due to the fact that the automobile manufacturers sign exclusive contractual agreements with them. Therefore, factors like switching costs and tendency to switch are weak buyers’ bargaining power determinants. Nevertheless, in order to reach the end consumers, the car producers in China rely on the dealerships. This factor makes the automobile manufacturers in China dependent on them and therefore, the bargaining power of buyers (in the face of dealerships) is rather strong. What weakens the buyers’ power is the product dispensability. In other words, dealerships themselves are dependent on the automobile manufacturers due to the fact that the product is a necessity to them. Another factor is the oligopolistic threat – the relatively low concentration of players since the market is dominated by main international automobile producers such as VW, GM and Toyota (Datamonitor 2011). It could also be stated that buyers’ power is weakened further by the combination of a large number of dealerships and a high level of product differentiation. Moreover, car dealers in China are obliged to sell brands and models of automobiles which are most preferred by their customers, this reduces bargaining power additionally.

In terms of backward integration of dealers into manufacturing this is very unlikely to happen because of the different nature of the two businesses. On the other hand, many of the manufacturers start their own dealerships, which makes the forward integrating for the automobile producers highly possible (Datamonitor 2011). Price sensitivity of consumers is a determinant that weakens their power, although the purchasing power in China is increasing with people’s income, respectively. On the other hand, today the financial independence of end-consumers is enhancing due to the progressive credit solutions and the fact that some of the Chinese banks are authorized to offer credit especially for the purchase of vehicles.
From what is being said about the main drivers of buyers’ power in the text above, the conclusion which could be drawn is that the bargaining power of buyers in the Chinese automobile industry is rather weak.

### 4.4.2 Bargaining Power of Suppliers and Main Drivers for It

Described below are the key drivers influencing the bargaining power of suppliers in the Chinese automobile industry.

**Figure 8 Drivers of Supplier Power in The Chinese Automobile Industry**

Central for the automotive industry in China and the world are naturally the commodity goods like steel and other metals and more differentiated input in the face of various ready-made components. In general, these items are produced by outside companies. In this regard there are large multinational suppliers with a strong presence not only in China but the global markets, which makes them independent and very powerful (Datamonitor 2011).

Another practice which strengthens suppliers’ power is with regard to players’ dispensability. The signing of contracts between manufacturers and suppliers, in order to ensure on time delivery of key commodity goods, strengthens suppliers’ power. However, the bargaining power of suppliers is slightly reduced due to the low differentiation of raw materials making it difficult to distinguish between them. On the other hand the significance of high quality raw materials and readymade components and parts to automobile manufacturers, increase suppliers’ bargaining power, together with the fact that there are no substitutes for the needed
raw materials and what is more the relatively small size of the reliable suppliers in the industry offering high quality components at a competitive price.

Of no less importance is the fact that, most of the suppliers sell commodity items not only to manufacturers from the automotive industry but to many other producers from various sectors, thus generating revenues from more than one segment in the Chinese economy, this makes suppliers independent and further increases suppliers’ power (Datamonitor 2011).

To sum up, the determinants thoroughly described above lead us to the conclusion that bargaining power of suppliers in the Chinese automobile industry is rather moderate.

4.4.3 Threat of New Entrants
The figure below presents the main factors influencing the threat of new entrants in the Chinese automobile industry.

Figure 9 Factors Influencing the Threat of New Entrants in The Chinese Automobile Industry

![Diagram showing factors influencing the threat of new entrants in the Chinese automobile industry](image)

Source: Datamonitor 2011

The entry barriers in the Chinese automobile industry have been significantly reduced due to the attracting policy of the government with regard to foreign direct investment in the sector. The factor which attracts many foreign companies is unsurprisingly the market growth. The boom of the auto industry and the increasing demand have revealed the lucrative market potential. Therefore market growth is the strongest factor increasing the threat of new entrants in the Chinese automobile industry.
Fixed costs are another important factor which influences the threat of new entrants. To set up a large production facility meeting the needs and demands of the Chinese market requires a large investment, therefore is a major entry barrier in the automobile industry. Of no less importance is the awareness of the foreign brand and the reputation it has. In China, brands like Volkswagen, General Motors and Toyota have a very strong brand recognition which is the main factor for their high revenues and market domination. Brands like these make it very difficult for new entrants to launch successfully their products on the market, in other words the factor: distribution accessible, is a weak threat of new entrants. Yet, in terms of sales the price is in most of the time, the major determinant, thus car producers may enter the Chinese market through the sale of cheaper vehicles.

Switching costs could also be said that are relatively high and therefore are a barrier for new entrants the same is valid for the undifferentiated product. However, the large number of suppliers is a strong factor increasing the interest of the new entrants. On the other hand the lack of transparency in the Chinese legal system, together with the ambiguity of laws and regulations create a barrier for manufacturers. These factors are further amplified by the involvement of intellectual property by foreign companies.

It is important to be noted that in the recent years China has introduced new legislation with regard to the reduction of carbon dioxide emissions in the air. The National III Standard has been introduced in 2007 in China, in 2008 Euro IV standards have been adopted by Beijing (Datamonitor 2011). In this regard, the costs are increasing with respect to new and innovative technologies required in the automobile industry to meet the new laws protecting the environment safety. The trend nowadays is towards more economic and environment friendly engines, this respectively requires higher R&D costs. New entrants must be aware of such trends and the new laws when entering the Chinese automobile market.

To sum up, the factors thoroughly described above determine the probability of new entrants in the Chinese automotive industry as relatively low (weak).
4.4.4 Threat of Substitutes
The figure below summarizes the most important factors influencing the threat of substitutes in the industry.

**Figure 10 Factors Influencing the Threat of Substitutes in The Chinese Automobile Industry**

The factor presenting the strongest threat of substitutes in the industry is the cheap alternative to new cars. This may be seen in the face of used automobiles which are sold by dealerships along with new cars. Especially, in the last few years dealerships have probably sold more used vehicles than new ones due to the global economic and financial crisis. Another substitute is the alternative mode of transport. Many of the end consumers may prefer to use public transportation instead of owning a car.

Of no less importance is the fact that, with respect to the new emission standards in the country and the governmental policies encouraging the use of green cars, in the long run the new automobile might be the more beneficial alternative.

The third factor influencing the threat of substitutes are the switching costs which are relatively high, especially with respect to the new technologies which have to be implemented and used in the production of green cars. To sum up, the threat of substitutes is rather moderate.

4.4.5 Market competitors
Figure 11 below presents the factors with the greatest influence on the degree of rivalry among competitors in the Chinese auto industry.
The high fixed costs, exit barriers and relatively high switching costs are important factors influencing the degree of rivalry in the auto industry, due to the fact that leaving it would mean a significant disinvestment and loss of revenues and assets. The high level of design and marketing costs in terms of product promotion increases the rivalry among market competitors.

The lack of diversity and similarity of players further increase competitors’ rivalry in the Chinese automobile industry. The number of players in terms of large scale manufacturers is fairly small. The Chinese market is consolidated due to the fact that manufacturers are interested to increase their market share through limited growth in large but mature markets (Datamonitor 2011).

In terms of market expansion it is a moderate factor influencing rivalry among competitors due to the established powerful brands in the industry, nevertheless some companies engage in more than one segment by utilizing different brands, e.g. BMW and Mini (Datamonitor 2011). Rivalry among competitors is also little reduced through a degree of differentiation in few diverse segments within the automobile industry like luxury cars and budget cars. Overall, the degree of rivalry in the industry can be defined as moderate.
4.4.6 Summary of Porter’s Five Forces

Figure 12 summarizes the power of Porter’s five forces with respect to the Chinese automobile industry.

**Figure 12 The Five Forces Driving Competition in The Chinese Automobile Industry**

![Five Forces Chart](image)

Source: Datamonitor, 2011

To sum up, the Chinese automobile industry is experiencing a steady growth despite the global economic downturn. The rivalry among competitors is enhanced by the existence of powerful international companies. The threat of substitutes in the market is moderate in the face of public transportation and used vehicles. In terms of threat of new entrants, regardless of the strong market growth, the required initial capital expenditures represent very high fixed costs and are serious entry barrier.

Of no less importance, are the additional costs and expenses required in order manufacturers to be able to meet the standards with respect to reduction of carbon dioxide emissions in the air.

The bargaining power of suppliers is moderate. It is increased due to suppliers’ large size, the fact that they deliver commodity items not only to the automobile industry but to many others and are independent from the automobile manufacturers. The consolidation of the industry further increases their power. The buyers’ power is rather weak because of the very high switching costs encountered by dealerships. The fact that buyers (dealerships) have to conform with end-users’ tastes and loyalty to certain brands further decreases their bargaining power.
5 Case Study Analyses Chapter

The purpose of this chapter is with the help of the theoretical criteria of Dunning’s eclectic paradigm, which was well explained earlier in the text, to examine FDI in the automobile industry in China by analyzing three of the biggest foreign players in the Chinese automobile industry and namely General Motors (GM), Volkswagen (VW) and Toyota.

The three companies which will be analyzed are homogeneous with respect to the industry they come from. Of no less importance is the fact that, their motives for investment in the Chinese automobile industry are similar. The three cases are excellent examples of market-oriented FDIs and their main determinant is the large market size of China. The heterogeneity in the cases comes from the different home countries of the three companies and thus the CAGE framework will be applied in order to analyze if the three companies’ preferences with regard to the Chinese auto market are intact by the distance determinants thoroughly explained and examined in the literature chapter above.

After the case study analyses will follow the conclusion chapter with a summary of main findings and recommendations with respect to the Chinese automobile industry and the three major foreign players in it.

5.1 General Motors (GM) Case Study

5.1.1 Brief overview of GM Company

General Motors is one of the largest automobile manufacturers in the world, it traces its roots back in 1908. The company’s headquarters is based in Detroit. General Motors employs 209,000 people all over the world, the company operates in more than 120 countries. Together with its strategic partners, GM produces vehicles in 31 countries under the following major brands: Buick, Cadillac, Chevrolet, GMC, Daewoo, Holden, Isuzu, Jiefang, Opel, Vauxhall, Wuling. China is GM’s largest market, other major markets are the United States, United Kingdom, Germany, Canada and Russia (General Motors official website 2011).

5.1.2 Introduction of General Motors (GM) China

In China GM has been the sales leader for six consecutive years among global automakers (Miller 2011). The company’s relationship with China dates back for more than eight decades. The vision of General Motors China is together with its partners to be the top automobile company in China. Today the company has 11 joint ventures and offers the largest spectrum of automobiles and brands in the automobile industry in China. On the Chinese
market GM sells vehicles under the brands: Baojun, Buick, Cadillac, Chevrolet, Opel, Wuling, Jiefang (General Motors China official website 2011).

General Motors negotiated its first Joint Venture in China- Shanghai GM in the early 1994 with their local partner Shanghai Automotive Industry Corp. (SAIC). In a recent interview with the editor of China Business Review (CBR), David Chen the vice president of GM China Group, discusses interesting facts about the current operations of the company’s business in China. According to the vice president, today GM China employs more than 40,000 people in nine cities. The company’s first car manufactured in China- the Buick Century was launched on the market in 1999. In 2010 domestic sales of automobiles produced by General Motors in its JVs reached a little more than 2.3 million units which has been an astonishing increase of approximately 29% in comparison to the annual sales of 1.8 million units in 2009. According to Mr. Chen the company’s success is based on the fact that GM’s vehicles have state-of-the-art technology in contrast to some of their European competitors which have been releasing models of automobiles on the Chinese market that were about 10 years old. The promise which GM have given to China and are trying to keep is to launch a new car every year.

According to the facts published in CBR, General Motors China is the first company to release a family car on the market in the year 2000 when at that time about 90% of China’s sales had been from government purchases. However, the company was right to take the risk because today most of the purchases come from private users.

5.1.3 Investment structure of GM China
According to the company’s website and the interview with GM vice president in China in CBR from June 2011, the company has set up 11 Joint Ventures and two wholly owned enterprises in the country. After the JV with SAIC was established in 1994, in 2002 the American giant negotiated its second Joint Venture between SAIC, GM China and Liuzhou Wuling Motors Co., (SGMW), which is located in Liuzhou, Guangxi. The JV has been the best mini commercial vehicle producer for five years and in 2010 has sold a little more 1.2 million vehicles in China. Together with SAIC, Shanghai GM has built a plant in Yantai, Shandong for the Chevy vehicles. The company has expanded its business operations in the northern provinces of China- Shenyang, Liaoning. There it set up a plant for Buick GL8 minivans and Chevrolet Cruze compact sedans. In 2009 Shanghai GM negotiated a JV with First Auto Works (FAW) for the production of commercial light-duty trucks.
5.1.4 Performance of GM China in the last couple of years

5.1.4.1 GM China the 2010 market leader and its most selling brands

In November last year, General Motors became the first global auto manufacturer in China to sell more than two million units of vehicles only in a year (Miller 2011). The Vice President of GM China has stated for the press that, although 2008 has been a rather weak year for the automobile producers worldwide because of the economic and financial crisis, due to the Chinese government on-time economic stimulus incentives which turned out to be very effective, 2009 and 2010 were excellent years for the company’s operations in China. The government’s incentives were introduced in January 2009 and included tax discounts for small engine automobiles, discounts for rural automobile buyers and inducements to replace old vehicles with newer and energy efficient models (Miller 2011).

The above mentioned incentives in the automobile industry in China led to the increase of sales in the sector with more than 40% in 2009. General Motors’s sales in the country increased with approximately 67% and the company manufactured and sold 1.8 million vehicles in 2009. As mentioned above in 2010 the company sold domestically produced cars in China of 2.3 million units, which is an increase of 29%. Although the stimulus package has ended in January 2011, GM China has declared a sales increase of 22.3% in comparison to January 2010. The company’s February 2011 sales have also set a record for the month of 184,000 units (Miller 2011).

The company’s success in terms of sales in 2010 was determined by the great customer interest of the company’s brands. Shanghai GM sold a little more than 1 million automobiles. The company’s most popular brand in China is the Buick of which were sold 550,000 units. Chevy which was introduced on the Chinese market about seven years after the Buick recorded sales of 543,000 units in 2010. Cadillac which is the newest automobile introduced by Shanghai GM in China, although the strong competition in the face of the well known brands like Mercedes and BMW, its sales increased with 139% with respect to 2009 and in 2010 17,000 units were sold (Miller 2011).

In front of China Business Review, Mr. Chen reveals that the SGMW Joint Venture also performed great in 2010 and recorded sales of 1.2 million mini commercial vehicles. The FAW-GM Joint Venture traded 88,000 trucks on the Chinese market in 2010. The first most popular automobile of the SAIC-GM-Wuling Joint Venture: Wuling Sunshine recorded sales
of 668,000 units in the fiscal year 2010. The company’s second most popular vehicle: Wuling Rong Guang minivan reached sales of 335,000 units in the same year.

5.1.5 The future goals of GM China
According to the Vice President of GM China, the country as an emerging market has unparalleled opportunities. The company expects the sales in the Chinese automobile industry to have even more sustainable growth in the next few years at a rate of 10% to 15%. General Motors wants to continue to be an industry leader with regard to sales, product development, capabilities and innovative and advanced technologies because the company has optimistic prospects of the Chinese automobile market in the long-run. Mr. Chen states for CBR that the company will work in a close cooperation with its partners to further develop the business “in China, for China, with China.”

5.1.6 General Motors: Analysis based on the OLI paradigm

5.1.6.1 Ownership advantage
General Motors’ ownership advantage stems from the company’s innovative concepts and products. Innovation is the driving force behind this multi-million corporation. Furthermore, GM’s core competencies refer to the company’s state-of-the-art technology, its superior know-how and pioneering ideas and great reputation backed up by excellent brand recognition of its automobiles.

GM is a company of many firsts. It has an unbeatable record of innovation and technological leadership, going back to its early contributions in the automobile manufacturing, when the industry’s first workable electric starter was invented by GM in 1911 and the electric self starter engine became the standard for GM’s Cadillac in 1912. Another example of GM’s unrivalled innovation leadership is the establishment in 1920 of the General Motors Research Laboratories which was the automobile industry’s first fulltime in-house research centre, where many of GM milestone innovations were initiated. In 1926 the company was the pioneer in creation of a nationwide service strategy with the Cadillac. Another example of the company’s technological leadership is the introduction of OnStar satellite technology which made possible the tracking of a vehicle in case of an emergency or theft and let the passenger to establish a connection with OnStar personnel. In 2008 GM introduced its Chevrolet Volt (Chevy Volt) concept, which stands out as one of the most revolutionary progresses in automobile propulsion technologies today (GM Heritage Center 2011).
Of no less importance is the company’s EN-V (Electric Networked-Vehicle) concept car which was introduced in the 2010 Shanghai World Expo. and which brings a new light in the future sustainable development of the urban mobility worldwide (Miller 2011). As a whole, GM innovative leadership is moved aggressively towards the development of a variety of energy-saving technologies which include advanced internal combustion engines, bio-fuels and hybrids. The company has also undertaken the initiation to make advance battery development a core competency (General Motors 2011).

To sum up, GM ownership advantages derive from the company’s commitment to put forward its top quality product, performance and value to customers all around the world while also playing a significant role in reducing the global dependence on oil and consider the environment safety. Therefore, innovative ideas and change are central for the company’s identity and image.

5.1.6.2 Location advantage

In order to exploit its ownership advantages internationally and have the ability to grasp a firm hold of a foreign market GM has not overlooked the Chinese market. For the last several decades China has been the centre for most of the economic activities. As being a developing nation, the country has been growing at such a pace that it requires government intervention to control its growth due to the threat of exhausting its natural resources. The two main factors that determine GM location advantage are the large market size and foreseeable growth potential.

At the time when GM built their Shanghai plant, the company has made a big investment even before the market developed and their move was widely questioned as many wondered if there would be a car market in China at all (GM Heritage Center 2011).

However, the management of GM at the time the company’s first JV was established have known from the very beginning that despite the risk they were undertaking Chinese car market will expand and as we see today GM enjoys a huge success in the automobile industry in China as becoming the market leader in 2010 and what is more nowadays China is the largest market for the American giant.

The sustainable economic growth of China is being transformed into higher standard of living and customer demands alongside the increase of new and powerful middle class. It is a well
known fact that every year with the expansion of the new working class in China the registered number of automobile increases together with the customer demands. In this respect the state-of-the-art technology and models of GM cars perfectly meet the customers higher expectations. In other words, the American automobile giant manages successfully to implement its core competencies into the Chinese market.

As a whole the Chinese economic growth of 8% to 10% annually on average is simultaneously increasing the level of consumers’ purchasing power by an equivalent amount and the population interest in the purchase of cars is raising proportionally (Brush 2011).

According to the Shanghai GM vice president of vehicle sales, service and marketing the Chinese automobile market has a great unmet domestic demand. Nowadays there are on average 40 vehicles on the road per 1000 Chinese residents which compared to the USA where 750 people out of 1000 own cars is a very small number and the future growth potential of the Chinese market is revealed. It is a true fact that no one shall expect the number of cars per person in China to match those in the American market in the next few years. However, the statistics show that the ownership of cars in a country increases sharply when per capita income rises above USD 4000 per year. The Vice president of Shanghai GM expects this threshold to be crossed by China at the end of 2011 if not at the end of 2010 (Brush 2011).

Among other factors the incentive policies which the Chinese government has introduced with respect to the development of the domestic automobile manufacturing, makes China a very attractive and lucrative market for FDI in the automobile sector. This is a determinant which further increases the location advantage of GM in China.

To sum up the most important location advantage of General Motors in China derives from the country’s large market size and high growth potential of its automobile industry. However, in order to succeed the company has to learn and understand many things about the country and the way business is done there. GM should keep in mind that the best selection of operations in one foreign country is not always the optimal choice of operations in another. Nevertheless, the huge success of GM in China today shows that the American company has carefully contemplated on its strategy of how to establish a major presence on the Chinese automobile market and therefore it deserves today’s leadership position there.
5.1.6.3 Internalization advantage

From the fact that GM has become the market leader in 2010 with respect to the number of sold automobiles in China we can easily reach to the conclusion that the company has been able successfully to internalize its ownership advantages, mentioned above, with the host country’s location advantages and therefore, today GM operates in the foreign environment-China very effectively and efficiently.

Obviously GM is being able to exploit in the most lucrative way its ownership advantages internally in the foreign market. An example of this are the increased sales of the company’s cars such as the Buick and Chevrolet. With the expansion of the American giant into the Chinese car market the brand image of its cars was intact. In the 20’s and 30’s of the last century the Buick was a symbol of prestige and fortune in China. Today the Chinese buyers of GM cars are demonstrating their social status with their purchases of Buicks, Chevrolets and Cadillacs (Brush 2011).

Another reason for the success of GM in China is the fact that through its efficient internationalization strategy, the company has chosen to go local in China much earlier and with better partners than its competitors.

The company’s history in China shows that the American multinational has managed to combine its ownership advantages with the right selection of a host country in the most effective way by establishing strong ties in the foreign environment with its first JV much sooner than some of its biggest competitors. The selection of a local partner for their first JV has been also very well considered and has further contributed to the efficiency of their business in China. The selection of SAIC as their first local partner has been a very smart move for GM not only because this has been one of the premier auto manufacturers in China but also because they are a company which have strong international ambitions and therefore for GM it has not been that difficult to work with them in a close cooperation.

Of no less importance is the fact that, in terms of efficient and effective combination of GM’s ownership advantages on the foreign market, the company has successfully managed to implement its innovative ideas in its products and further adapt its cars to the local Chinese tastes and road conditions. With the help of its local partners the American giant has been able to learn about the local tastes and behind the scenes issues.
The company has about 2000 engineers in China to help GM adapt and design vehicles to meet the local consumers’ needs and demands. It modifies its automobiles to meet the hurdles of the road conditions and infrastructure in China. What is more, because of the emphasis that Chinese car drivers place on fuel efficiency, due to the rising prices of the oil, GM automobiles are often fitted with smaller engines. GM has also found a place in the lower priced segment of the automobile market in China with its new Chevrolet Sail which was introduced in 2010 and is especially designed for the budget car buyers.

To sum up, GM in China has successfully able to implement its ownership advantages in the Chinese automobile industry. The company’s most important location advantage in terms of the large market size and high market growth potential further contribute to GM triumph in China so that together with its local partnerships it has been the market leader for the last year.

5.1.7 General Motors and its Chinese partners: Analysis based on the CAGE framework

5.1.7.1 Cultural distance

“Culture is more often a source of conflict than of synergy. Cultural differences are a nuisance at best and often a disaster.” Prof. Geert Hofstede, Emeritus Professor, Maastricht University.

The quote above reveals a very important concept which many companies neglect in their endeavors to grasp the advantages deriving from a large marker size and high market growth potential of a foreign country. This concept is based mainly on the fact that culture highly influences the way in which business is done between two companies of different nationalities. The cultural aspects, as the literature reveals, definitely have deep effect on choices related with products from the consumer durable industry such as the automobile industry. In this respect some of the cultural distance determinants are more obvious, e.g. different languages and others are more subtle such as the different social norms in two different nationalities.

Therefore, in order to examine the risk which GM has undertaken with its decision to invest in China and to illustrate how big the cultural distance between an American and Chinese company is, Geert Hofstede’s most important cultural dimensions will be discussed with respect to the two countries.
Figure 13 Geert Hofstede Cultural Dimensions China vs. United States

Source: www.geert-hofstede.com

Figure 13 above depicts the five cultural dimensions examined in Hofstede’s research. With the help of those factors, the authors of the thesis will explain how culture with its social values and norms may influence the way business is done between China and the USA and most importantly examine what is the cultural distance between GM and its Chinese partners in the company’s JVs in this foreign country.

The first cultural dimension illustrated in the figure above is based on the Power Distance Index (PDI). It shows the extent to which the less powerful members of organizations and institutions accept and expect the fact that power is distributed unequally. From the graphic it could easily be seen that the U.S. has two times lower PDI than China. The lower PDI of the USA suggests that there is much greater equality between societal levels, in this respect within government, organizations and families, than in China. The high value of the PDI in China is an indicative of a very high inequality between the above mentioned societal levels. In other words, in the United States and respectfully GM as an American company, there is a great cooperative integration across power levels and this creates a more stable cultural environment than in China.

The second cultural dimension in the graphics is represented by the degree to which individuals are integrated into groups. The Individualism (IDV) ranking of China is extremely low, which is an indication that China is a highly collectivist society. This may be attributed to an extent to the Communist regime in the country and the emphasis it has on the collectivist society. China is a society in which people are integrated into strong, cohesive in-groups which protect themselves in exchange for unquestionable loyalty. Here should also be mentioned the guanxi in terms of strong relationship ties which have also influence on the
business. The high Individualism ranking of the U.S., on the other hand, is a sign of a society with a very individualistic mind-set and very loose bonds with others. Therefore, it could be concluded that the Americans are self-reliant and look after for themselves.

The third dimension illustrated above is Masculinity (MAS). The ranking of MAS in the United States is just a little bit higher than in China. However, both countries experience a high degree of gender differentiation of roles. In this respect in China and the U.S. the male dominates an important portion of the society and power structure, which on the other hand makes the female population to become more competitive and assertive.

In terms of the Uncertainty Avoidance Index (UAI) both China and the USA have rankings lower than the world average of 64, according to Hofstede’s research. A low ranking of this index shows that the two societies have fewer rules and do not attempt to control all outcomes and results. Such societies have a higher level of acceptance of ideas, thoughts and beliefs.

Last but not least is the fifth cultural dimension examined by Hofstede in his research. This is the Long-Term Orientation (LTO). There is a significant difference between the LTO indexes of China and The U.S. The highest ranking factor of China points towards a society with time perspective and a position of persistence. In other words, the Chinese are a nation that overcomes obstacles with time if not with strength and will. On the other hand, the low LTO ranking of the Americans is an indicative, according to Hofstede, of the society’s belief in meeting its obligations and mirrors Americans positive reception of the cultural traditions.

To sum up, with the help of Hofstede’s cultural dimensions, the enormous cultural distance between the American and Chinese societies could be illustrated with respect to the countries subtle distance determinants hidden in their diverse social norms and beliefs. In terms of consumers’ preferences of GM’s cars in China, the American giant has managed to successfully introduce models of cars which meet most of the customers’ needs and demands with respect to the smaller and more fuel efficient engines of some of the models. This particular demand of the Chinese customers is connected not only to some cultural traits, but also to some economic factors.

Furthermore, the examination of the factors affecting the cultural stance with respect to the indexes thoroughly described above, demonstrates that GM decision to enter the Chinese
market and work in a close cooperation with Chinese partners in a range of joint ventures in the Chinese automobile industry, is one that has taken into account the high risk involved when investing in much different with respect to culture country. Obviously, GM has taken into account that culture still matters when investing abroad and has carefully selected its JV partners in China. This is true because despite the big cultural distance between the two nations, not only in terms of language, religion and customs, but also with respect to different social norms and beliefs, GM has managed to cooperate in the most effective and efficient way with its Chinese partners in order to become the market leader with its vehicles in China in 2010.

5.1.7.2 Administrative or political distance

In terms of administrative or political distance between China and the United States it has been decreased with the accession of China into the WTO. However, the intensity of state involvement in the country’s economy is still high. Corruption in China is a major problem. In 2010 Transparency International ranked the country 78th out of 178 countries in the index with a score of 3.5, on a scale of 0 (highly corrupt) to 10 (highly clean). In contrast, the United States were ranked 22nd, with a score of 7.1.

According to the Maplecroft’s Global Risk Portfolio and an article published in its website, China has been classified as “extreme risk” in areas such as: civil and political rights, judicial independence, democratic governance, labor rights and human rights violations committed by members of the security forces. However, due to the country’s economic modernization and strong position in the world’s economy, it has been awarded “medium risk” rating for resource security, economic diversification and infrastructure (Maplecroft 2011). The United States, on the other hand, have been ranked as a low risk country. However, its credit rating has been downgraded on 05 August, 2011 by the rating agency Standard and Poor’s to AA+ from AAA+.

Having all these facts in mind, it could be concluded that the political and administrative situation in China creates serious hurdles for the American companies wanting to operate in this host country. However, despite GM late entrance in the Chinese automobile market, it established a JV with maybe the most powerful domestic partner at a time just prior to a rapid increase of the demand in the sector. What is more, the international joint venture project has been classified as the number one project, by the Shanghai Municipality and therefore the
company’s operations in China had very strong local government’s support, so that soon after the Shanghai GM production began, all automobiles used by the city leaders were changed to Buicks (Liang 2004).

Of no less importance, with respect to the automobile industry, are the numerous incentive policies presented by the Chinese government in order to stimulate the domestic consumption and moreover to increase the development and introduction of green vehicles. In this respect, GM in cooperation with its Chinese partners could profit through its innovative ideas depicted in the company’s electric vehicle concept, and obtain lucrative benefits from the government’s encouragement stimuli in the Chinese automobile industry.

5.1.7.3 Geographic distance

Figure 14 Map of China and The United States

![Map of China and The United States](image)

Source: CIA 2011

In terms of geographic distance, the main factors which will be analyzed here, in order to determine how far the two countries are, are the physical distance between China and the USA, physical sizes, access to water ways, roadways of both countries together with the transportation and communication infrastructure of the host country- China.

The distance between the capitals of the two countries is about 11,000 km. China is the fourth biggest country in the planet with a size of 9,596,961 sq km. In terms of access to waterways eastern Asia borders with East China Sea, Korea Bay, Yellow Sea and South China Sea. China has eight big ports and terminals which are Dalian, Guangzhou, Ningbo, Qingdao, Qinhuangdao, Shanghai, Shenzhen and Tianjin. It has 110,000 km of navigable waterways and 3.860,800 km of roadways, which makes China the second biggest country in terms of roadways after the U.S. 3,056,300 km are paved and include 65,000 km of expressway (CIA 2010). Therefore, in terms of transportation infrastructure, China provides excellent conditions, which are a big advantage in terms of international and domestic trade operations.
With respect to the country’s communication infrastructure it is ranked first with respect to the number of telephone main lines in use: 313,680,000, followed by the U.S. with 141,000,000. It is also number one in terms of mobile networks’ subscribers: 747,000,000. China has 15.251 million internet hosts and 389,000,000 internet users, placing it on the first place (CIA 2010). However, the big time difference between China and the U.S. hampers the easy communication between the countries.

The United States of America are the third biggest country in the world after Russia and Canada. It’s total size is 9,826,675 sq km. North America borders with the North Atlantic Ocean and North Pacific Ocean. The country has 41,009 km of waterways out of which 19,312 are used for commerce. It has 6,506,204 km of roadways which makes it number one in the world. There are many ports and terminals in the USA one of the most important are Baton Rouge, Corpus Christi, Houston, Long Beach, Los Angeles, New Orleans, New York, Texas City etc. (CIA 2010).

To sum up, the vast geographic distance between China and the U.S. makes the export and import from and to the host country more difficult in terms of time and transportation costs. Therefore, with regard to the excellent transportation and communication infrastructure in China establishing direct foreign investments in the country is a preferable scenario in order to benefit from China’s sustainable economic growth, especially for GM which has found the excellent JV partners in the host country in the face of SAIC, which are strategically located in the city with one of the biggest and busiest ports: Shanghai and is also one of the richest provinces in China and a major automobile manufacturing center.

5.1.7.4 Economic distance
China has moved from a closed, centrally planned system to a market-oriented country, since the late 70s of the last century. Today China plays a major global role it became the largest exporter in the world in 2010. China’s restructuring of the economy and the consequent efficiency gains have contributed to more than 10 times raise in GDP since 1978. In 2010 on purchasing power parity (PPP) basis, China became the second largest economy in the world followed by the U.S. In this regard China surpassed Japan in 2001. According to the USD values of the Chinese industrial and agricultural production, both surpass those of the United States. Furthermore, China is the second largest after the USA in value of its services (CIA 2010).
According to the CIA world fact book, in terms of per capita income, China is still below the world average. The global economic and financial crisis reduced foreign demand for exports from China in 2009. However, the country recovered quickly and outperformed in 2010 all other major economies as its GDP growth rate was around 10%. The GDP per capita (PPP) was estimated to amount to USD 7,600 in 2010, against USD 6,900 in 2009. In comparison, the United States of America which are the largest and most technologically powerful economy in the world had per capita GDP (PPP) in 2010 of USD 47,200 with an estimated growth rate of only 2.8% in 2010, compared to -2.6% in 2009 and 0% in 2008 (CIA 2010).

Chinese economy seems to remain on a strong growth path also in 2011. The plans of the government indicate to continue reforming the economy towards increasing domestic consumption and make China less dependent on exports for GDP growth in the foreseeable future. The two problems which the country faces today are inflation rate which exceed the government’s target of 3%. The second problem is the local government debt, which due to the stimulus policies has increased and is largely off-balance sheet and possibly low quality (CIA 2010).

To sum up, the economies of China and the USA are making important improvements recovering from the economic downturn in the recent years. The future of the two biggest economic powers in the world is interrelated in terms of politics, international relations and international trade.

Despite the two problems mentioned above, the Chinese automobile market remains a very lucrative target for the big multinational players in the industry. Therefore, GM as being largely influenced in its decision to enter the Chinese auto industry by its large market size and high growth potential has definitely a great location advantage. Moreover, the economic distance between the two countries is being further reduced by the sustainable economic growth of the host country which with its GDP growth of 10% has outperformed most of the major global economies and the live standard of the Chinese consumers, many of which are GM future potential customers, is quickly increasing.
5.2 Volkswagen (VW) Case Study

5.2.1 Brief overview of VW Company
Volkswagen was founded in 1937 and the brand name itself means ‘the car of the people’. VW is a producer of passenger and commercial cars (Datamonitor 2011). The headquarters of Volkswagen are situated in Wolfsburg Germany where the most advanced and one of the biggest VW car factories are (VW Annual report 2009). According to the annual report for 2010 the sales revenue even in difficult market environment of the VW Group increased by 0.6% which accounts to 6.3 million vehicles for the year. In addition, in 2010 the successful joint ventures with Shanghai Automotive International Company (SAIC) and First Automotive Works (FAW) delivered 1.9 million vehicles to customers (VW Annual report 2010). The VW Group operates in 13 European countries and six countries in the Americas, Asia and Africa. Moreover, globally VW employs 399,381 people which produce almost 25,400 vehicles which are sold in more than 150 nations (Datamonitor 2011). The Group consists of the following nine brands: Volkswagen passenger cars, Audi, Bentley, Bugatti, Lamborghini, SEAT, Skoda, Scania and Volkswagen Commercial Vehicles (Datamonitor 2011). The initial success of the company was due to the launch of the famous brand Beetle and Volkswagen bus in 1950s -1960s followed by the Golf brand 14 years later (EBF 2007).

5.2.2 Introduction to VW China
The Volkswagen Group has been present in China for more than 25 years. In addition, Volkswagen is the first western car manufacturer which entered China in 1985 and the first office was opened in Beijing. VW had a huge success in taxi and official car fleet which increased the sales and the credibility in the brand. Certainly, VW was the leader of the Chinese passenger car market until 2005 and continues to strengthen its position in Chinese market since 1985 (EBF 2007). VW negotiated its first joint venture with Shanghai Automotive International Company (SAIC) in 1985 and the second joint venture was in 1990 with First Automotive Works (FAW). SAIC and FAW Group are one of the top three leading automotive manufacturer companies in China. In total, VW Group has 4 vehicle production facilities and 5 plants for production of components situated in nine locations in China. In addition, SAIC possesses technology and design centers and in China the company’s workforce amounts to 40,689 for 2010 (EBF 2007).

According to the European Business Forum (2007) the success of the company is based on building enduring relationships with its joint ventures. Moreover, in China and in many other
countries the brand was associated and it is a symbol of a social status. The company takes its social responsibility very seriously. The VW group set its target to become the leading carmaker in environmental friendly conditions. In this respect, VW developed guidelines for the continuous reduction of emissions. Furthermore, since 2005 the fleet consumption was reduced by 20% by the use of BlueMotionTechnologies (Just-auto 2011).

5.2.3 Investment structure of VW China
Volkswagen in China relies on the following two joint-ventures the first is with Shanghai Automotive International Company (SAIC) founded in 1985 based in Shanghai, and few years later the second JV with First Automotive Works (FAW) was set up in 1990 situated in Changchun. Interestingly, SAIC is the first car-making joint venture in China after the reform. According to the VW annual report for the year of 2010 Volkswagen has a 40% share in the FAW joint venture in Changchun and a 50% stake in the Shanghai Volkswagen joint venture (VW Annual report 2010). One of the key factors behind the success of VW in China was its capability to build and manage long-term joint-ventures.

The Chinese market has always been important for VW and has considerably increased in the past several years. Until now the company has 9 production facilities in China both for vehicle and component plants and two more vehicle plants are planned to be constructed. Moreover, VW plans to increase their production capacity in the long-term to achieve around 3 million vehicles for a year. Until the end of 2015 the VW group is expected to invest 10.6 million euro which will be financed directly from the cash flow of the Chinese joint ventures and will represent one of the major automotive investments in China until now (Volkswagen Annual report 2010).

The Volkswagen Passenger cars, Audi and Skoda volume brand, Lamborghini and Bentley luxury brands represent the VW group for the Chinese market. The car models that are especially produced and are of particular interest for this market are: Passat New Lingyu, Lavida and New Bora, Audi A6 and Skoda Octavia. The newly launched models Audi Q5 and Tiguan went beyond expectation in terms of demand. The Group succeeded to expand its leadership in the Chinese market for 2010 (VW Annual report 2010).

5.2.4 Performance of VW China in the last couple of years
The joint ventures of VW for the year of 2010 succeeded to sell more locally produced vehicles than in 2009. Currently, the VW Group China reported a strong performance in 2010
with 1,923,500 vehicles which is 37% higher than the previous year. The vehicles were delivered to clients in Honk Kong and mainland China during 2010. The VW Company is planning to invest 10.6 billion euro from 2011 to 2015 to sustain its position in the Chinese automobile market. The President and CEO of the VW Group in China has said that even though the car market growth in 2011 can decrease slightly the company expects to experience a good performance in the future years. In addition, the Volkswagen Group’s investment is made particularly for the product development and new product extensions. Additionally, it represents the largest investment in China in the automotive industry (VW official website 2011).

Exceptionally, for 2010 VW brand sales amounted to 1,513,570 which included 43,613 imported vehicles. Audi sold 227,938 vehicles from which 33,018 are imported. Skoda delivered 180,515 cars to customers. Bentley sold 901 cars and Lamborghini 247 cars in 2010 in China. The CEO of VW in China- Mr. Neumann has said that there are a lot of challenges and opportunities for the company in the recent years due to the extraordinary growth in China and VW will be the future carmaker in China (VW official website 2011).

In mainland China and Honk Kong, VW is number one preferred brand for a premium car. For instance, Audi sold over 200,000 cars in 2010 and 194,920 units were locally produced in China. Its new products (Audi Q5, A5, and A3) increased the demand and sales for the brand. What is more, this year VW sales reached 1 million cars. All these facts demonstrate the solid base of a brand as Audi on the Chinese market and its future potential for market growth (VW official website 2011).

The VW brand shows outstanding results firstly because its strategy to launch modern and inexpensive models with fuel efficient technologies as TSI engines and DSG Transmission and secondly by launching the new models Tiguan, Phaeton, Touareg, and Volkswagen CC. The VW brand performs successfully and it can be seen by the number of units sold for the following models Golf (50,000 units), Lavida (240,000) and 160,000 units of New Bora sold (VW official website 2011).

5.2.5 The future goals of VW China
A part of its electro-mobility strategy of Volkswagen is its fast progress to produce electric vehicles in China from 2013-2014. Moreover, the E-Golf and E-Lavida were presented in 2010 and the first electric test of the VW Brand was made in 2011 in China (Just-Auto 2011).
In addition VW is planning to launch a new car brand specifically produced for the fast growing Chinese market. The government is promoting the Chinese brands recently and due to the joint ventures’ (SAIC and FAW) encouragement to make local new brands the VW’s have sales increased by 36% over the year (Just-Auto 2011).

According to Landwehr (2011) VW is prepared for long-lasting sustainable growth thanks to its strong partnership with FAW and SAIC. In the next couple of years VW will try to increase customers’ satisfaction with quality, service and brand building in order further to increase the interest of the brand in China. VW will bring the latest, the most innovative and environment friendly technologies to China in combination with the construction of new plants with the aim to boost the capacity of sales to 3 million cars in the following several years (VW official website 2011).

5.2.6 Volkswagen Analysis Based on The OLI Paradigm

5.2.6.1 Ownership advantage
Volkswagen as being one of the world’s leading automobile manufacturing companies and the largest carmaker in Europe possesses many competitive advantages. The company has led the way in commercializing the passenger vehicles in Europe through its technological advancement and very innovative and efficient production system.

VW has an unambiguous technological advantage in absolute terms if compared to the Chinese automobile manufacturers. Of no less importance, is the strong brand power which the company enjoys all over the world.

Volkswagen as being one of the first foreign car manufacturers to establish a joint venture with a domestic company in 1985, also possesses the first mover’s advantage in China. Therefore, Shanghai Volkswagen is being able to make the most of the firm’s specific ownership advantages and the success of the European car manufacturer in China has been absolute for more than 20 years.

To sum up, the ownership advantages of VW derive from the company’s strong global brand awareness and its very advanced technologies at the time it entered the Chinese car market in 1985, which completely satisfied the needs and demands of its customers in the foreign market. Volkswagen also possessed a very innovative and efficient production system at that
time which led to the company’s dominance in the Chinese automobile market for more than two decades.

Today VW has aimed its powers to anticipate the future needs and demands of its customers and to transform these needs and demands into innovative technologies. The company is trying to meet its customers’ wishes for individual and affordable mobility through sustainable technologies (VW official website 2011). In this respect, Volkswagen’s Blue Motion technologies represent the latest direction of their auto making ideology showing that the company is fully committed to clean, sustainable and effective development (Yu 2010).

5.2.6.2 Location advantage
As it has already been mentioned earlier in the text, Volkswagen entered the Chinese automobile market in 1985 by establishing a joint venture with SAIC, which has been one of the biggest and most profitable auto groups in China at the time and today. Together with its local partner, Shanghai Volkswagen has maintained the position of the most successful overseas funded industrial venture in China for many consecutive years from the time it started operation in the foreign market (Xiaolian Li 2000).

VW has definitely managed to utilize its ownership advantages internationally by selecting the best location in terms of China. Moreover, Volkswagen has strategically selected the best local partner in the face of SAIC, not only because it was the best managed automobile company in China at the time, but is situated in the most economically vital city in China—Shanghai. Being one of the first foreign companies in the automobile industry in China, VW was able to choose among the best local human resources and the top suppliers in order to achieve a high level of content localization and be cost competitive (Xiaolian Li 2000).

Volkswagen has made a very strategic choice by establishing its first JV with SAIC also due to the company’s tactical geographic location in Shanghai. The city is the most densely populated and prosperous in China. It is the heart of Central China serving the whole Yangtze River Delta and upstream Yangtze river region. According to Xiaolian Li (2000), due to the close economic ties of Shanghai with the Central China, its products have always benefited from their high reputation and are much less to be rejected because of local protectionism.
Of no less importance is the fact that, being an early entrant VW also managed to receive many incentives and host government’s support at many levels. Today the incentive policies of the Chinese government with respect to the automobile industry also encourage the growth of domestic sales and the development of the sector.

To sum up, by selecting the most strategic city for its first operations in China, VW has been able to successfully locate its business closer to its target customers. Therefore, with Shanghai as its first location in China, VW had the biggest market share for more than two decades in the Chinese car market and was among the most profitable companies in the sector.

5.2.6.3 Internalization advantage
VW has successfully managed to efficiently and successfully integrate its ownership advantages in the foreign market. What is more, Shanghai VW could absolutely make the most of its company specific ownership advantage and location advantage and the main reason for this is that it possessed the first mover’s advantage.

The JV between VW and SAIC appeared to be a huge triumph as the company ruled the largest market share in China. In its attempt to expand and diversify its revenue generating locations, VW managed to achieve its objectives by making use of its advanced technological and production advantages at the time.

Today Volkswagen China reports a very strong performance in 2010 with more than 1.9 million vehicles produced and sold to domestic customers in China, which is an increase of 37% in comparison to 2009. The two JV of VW in China- Shanghai VW and FAW Volkswagen are planning additional investment in the business in terms of sustainable growth, due to the solid performance and positive outlook for the company’s operations in the future (VW official website 2011).

Following the example of its American and Japanese rivals, today VW brings its lattes technologies to China in order to be competitive on the market with regard to the raising consumers’ demands and preferences. Furthermore, the company’s ownership advantage with respect to advanced technology is benefiting VW as the German automobile manufacturer is planning to introduce a fleet of E-cars with the VW logo in China in 2011. The company is planning to make the promotion of a greener environment one of its core competencies in the
future. This vision will further strengthen VW brand identity in China and make the business operation in the host market highly efficient in terms of profitability.

5.2.7 Volkswagen and its Chinese partners: Analysis based on the CAGE framework

5.2.7.1 Cultural distance

Figure 15 Geert Hofstede Cultural Dimensions China vs. Germany

Through the five cultural dimensions thoroughly examined by Hofstede’s research, the way how culture with its social values and norms may influence the way business is done between China and Germany will be analyzed. Based on that main conclusion will be drawn of how far the countries stand from each other in terms of cultural distance and how this may reflect on their mutual business operations in the country.

The first cultural dimension illustrated in the figure above is based on the Power Distance Index (PDI). As it has already been mentioned, PDI shows the extent to which the less powerful members of organizations and institutions accept and expect the fact that power is distributed unequally. From the graphic above it could easily be seen that Germany has almost three times lower PDI than China. The lower PDI of Germany suggests that there is much greater equality between societal levels, than in China, which is expected for a West European country. The high value of the PDI in China is an indicative of a very high inequality within government, organizations and families. The immense difference in this cultural dimension is a clear signal that the stability of the cultural environment in the two JV operations of VW in China may be shaken in terms of the good cooperative integration across power levels. Therefore, the tasks in the Shanghai JV have been clearly divided between the two partners as VW is being responsible for the technology and production and SAIC for
political relations and sales. This clear division of responsibilities has facilitated the stability of the business environment in the JVs.

With regard to the Individualism (IDV) ranking of China, it unsurprisingly is extremely low, due to the fact that, China is a highly collectivist society. Whereas, the seven times higher Individualism ranking of Germany, is a sign of a society with a very individualistic mind-set and very loose relationships with others. Therefore, the same conclusion could be drawn for the Germans as for the Americans, and it is that they are self reliant.

The third dimension-Masculinity (MAS) shows that MAS in Germany is just slightly higher than that of China. This is a clear signal that both countries experience a high degree of gender differentiation of roles, which makes the males to dominate the power structure of the two societies.

The Uncertainty Avoidance Index (UAI) of Germany has a ranking of 70 which is a bit higher than the world average of 64, according to Hofstede’s research. The higher index is a clear indicator that the Germans are a society which has many rules and wants to control all outcomes and results. On the other side, China has a ranking of less than 40 which makes it a society that has a high level of positive reception of new ideas.

The fifth index examined in the Hofstede’s research is Long-Term Orientation (LTO). The great difference between the LTO indexes of Germany and China, indicates that Germany is a society that values cultural traditions and fulfills its social obligations, whereas the values associated with high LTO are thrift and perseverance.

To sum up, the cultural distance between China and Germany is a vast one. However, from the successful operations of the two JVs between VW and SAIC and VW and FAW, the conclusion could be derived that VW has seriously taken into consideration that culture matters when doing business abroad and has managed to create a win-win situation for both of its domestic partners and itself.

5.2.7.2 Administrative or political distance
The administrative and political distance between Germany and China is high, on the first place due to the completely different legal systems. The legislative system in China is also very ambiguous to foreign European investors in the country.
Another factor which increases the distance is the fact that the two countries did not share a mutual former history in terms of colonial ties with one another. With regard to international trade organization memberships the political distance between China and Germany has slightly been reduced with the entrance of China into the WTO.

In terms of institutional infrastructure of Germany and China both countries enjoy a stable political stability which is a factor that influences the investment decision of many European and in this respect German companies to do business in China.

On the other hand the corruption level of China ranked by Transparency International in 2010 on the 78th place out of 178 countries, as it has been mentioned in the text above, has a negative effect on the investment decisions of the European companies and German ones as well. In contrast Germany has been ranked 15th, with a score of 7.9 on a scale of 0 (highly corrupt) to 10 (highly clean).

The facts above may lead us to the conclusion that China is highly distanced from Germany with respect to the above mentioned criteria in terms of administrative and political factors.

However, the fact that VW had and still has a successful JV partnership with two of the biggest Chinese car manufacturers should not be overlooked. One reason for this is that despite the distance between China and Germany with respect to many administrative and political factors, Volkswagen, as being one of the first foreign companies to enter the automobile industry in China had the first mover’s advantage and enjoyed the most political incentives in the car industry during many years of operation in the foreign market. In this respect VW was the undoubted leader of the Chinese passenger car industry for about 20 years and had a near monopoly in government and taxi sales.

Therefore, we can conclude that the numerous incentive policies of the Chinese government in the early years of VW’s business operations in the host market and the incentive policies introduced by the Chinese authorities in the automobile industry today, make this particular sector extremely lucrative for foreign investments and VW is one of the main companies which has foreseen those possibilities despite the high risk involved with respect to high administrative distance and deserves to be among the top foreign automobile manufacturers in China nowadays.
5.2.7.3 Geographic distance

Figure 16 Map of China and Germany

In terms of geographic distance several factors will be taken into account in order to examine how distant China and Germany are. Physical remoteness is the first factor in this comparison. China is about 7,200 km away from Germany.

Germany is located in Central Europe having borders with the Baltic Sea and the North Sea. China is advantageously located in the northeastern parts of Asia. China is an enormous country with a total area of 9,596,961 sq km, therefore it is very important to emphasize on the fact that Volkswagen’s strategic location derives the most from the host country’s size. Of no less importance is the tactical location of the German car manufacturer’s first production operation in Shanghai. Shanghai is one of the most important ports in China. It serves as the gate to the enormous market of the country. There is also a higher quality of demand and the region is characterized by a well-developed infrastructure which further compliments its attractiveness for the foreign automobile manufacturers. What is more, the region has the highest number of competing auto producers, which makes it one of the most important and competitive automobile clusters in China.

In terms of transportation and communication factors China is the second biggest country with respect to the size of its roadways and number one with respect to telecommunication facilities. Germany has excellent transportation and telecommunication infrastructures. However, the time difference between the two countries increases the geographic distance, due to the fact that it represents a hurdle to the communication.
To sum up, it could easily be reached to the conclusion that China and Germany are very far away in terms of geographical distance. Therefore, the export and import from and to each of these countries is expected not to be cost effective. In this regard, the establishment of FDI in China with respect to a leading European car manufacturing company as Volkswagen could be characterized as a very smart and strategic decision through which the lucrative benefits of the high growth and large size of the sector could be derived.

5.2.7.4 Economic distance
China and Germany are very far away in terms of economic distance. The German economy is the world’s fifth largest and the largest in Europe.

In terms of gross national income (GNI) and GDP per capita of the two countries, the GNI (PPP) per capita in China in 2010 has been estimated to amount to USD 7,570, whereas the GNI (PPP) per capita in Germany in 2010 is valued at USD 38,170 (World bank 2010). With respect to GDP (PPP) per capita in China it was USD 7,600 in 2010 and in the same year the same indicator in Germany was USD 35,700 (CIA 2010).

However, in terms of GDP real growth rate the largest economy in Europe shows a very small growth rate in 2010 of only 3,5%. The global financial and economic crisis has definitely influenced Germany in a negative way in 2009 the GDP real growth rate of the country was -4,7% and in 2008 the mere 0,7% (CIA 2010). Whereas, despite the crisis China has been on a steady growth trajectory in the last three years with GDP real growth rate of 9,6% in 2008, 9,2% in 2009 and the remarkable 10,3% in 2010. The projections for 2011 are also positive (CIA 2010).

In conclusion could be stated that China and Germany are making progress in recovering from the economic downturns in the last few years. The future of the Europe biggest economy and that of China should definitely remain related with respect to close international relations and international trade and what is more beneficial for both countries political decisions. China with its positive economic growth and developing economy remains a target country for the operations of the Europe largest automobile company in the face of Volkswagen.
5.3 Toyota Case Study

5.3.1 Brief overview of Toyota Motor Corporation
Toyota Motor Corporation (TMC) is the world’s largest automobile manufacturer as of 2011 (overtook GM in 2008). It is a Japan-based company Toyota and its subsidiaries Hino Motors and Daihatsu Motor Co. produce compact and subcompact cars, mini-vehicles, mid-size, luxury, sports and specialty cars, recreational and SUVs, pickup trucks, minivans, trucks and buses. Toyota manufactures auto parts, components and accessories for its own use and to sell to others. Toyota brands under its name models such as Camry, Corolla, Land Cruiser, Yaris (Vitz in Japan, Vios in China and Taiwan), Prius and luxury Lexus line, as well as the Tundra truck. TMC produces cars with both combustion or hybrid engines (Reuters 2011).

5.3.2 Toyota’s FDI activities in China
Toyota, compared to the other two big automakers (General Motors and Volkswagen) in the world, entered the Chinese market last. The company announced its plans to enter in 1994, but the government permission was obtained in 2000. Before investing in production of any cars in China, the corporation invested in establishing Toyota Motor Technical Center China (TTCC). The purpose of this was to train Chinese suppliers and dealers of car components in Toyota Production System, known worldwide as TPS. The TPS has been introduced in China since 1970’s when TMC held seminars and coached technical guidance on production sites. Later on in the 1990’s these seminars were held on annual basis (both in Japan and China) as TMC announced its intention to enter the Chinese market (Lee and Fujimoto 2003). In 1996 Toyota and TAIC established Tianjin Toyota Motor Engine (TTME), which would ultimately supply Toyota’s Chinese cars with locally produced engines, which are in tact with Toyota’s high quality standards. Since then, many TMC suppliers started to localize in this area. By the time of Toyota’s agreement for a car assembly plant in 2000, 18 Toyota suppliers have already established their local plants in Tianjin province. By the end of 2002 Toyota had 56 local establishments of TMC suppliers, which was even more compared to VW (entered China in 1984) at the time (Hatani 2009). By the end of 2002, Toyota and its keiretsu suppliers were involved in almost 70 joint and cooperative ventures in China. Keiretsu networks are “institutionalized relationships among firms based on localized networks of dense transactions, a stable framework of exchange, and patterns of periodic collective action” (Lincoln, Gerlach and Takahashi 1992). The late entry of Toyota could be partly explained by Chinese government ban on establishing new passenger car joint ventures,
which was set in the “Automobile Industry Policy” act from 1994. However, the ban was dismissed in 1997 that allowed Toyota to enter the Chinese market in May 2000 with a joint venture with TAIC. The newly established entity, Tianjin Toyota Motor Company (TTMC), is to produce small cars similar to Toyota’s famous Yaris model, thus aiming for the compact car segment, which showed great growth and sales potential. The vehicles are to be specially designed for the Chinese market. The initial goal was to produce 30,000 vehicles in 2002 and ultimately 120,000 cars on annual basis. In addition, Toyota also established in Tianjin Toyota Motor (China) Investment Co., Ltd. (TMCI). The main purpose of this company is to provide marketing, advertising and sales support for Toyota’s Chinese cars. TMCI is also engaged in training and educating employees in sales and quality services. TMCI is wholly-owned by Toyota Motor Corporation. By 2005, TTMC has fully implemented the TPS. This was achieved by extensive training of Chinese employees in Japan, which in turn would train other employees in China. TTCC was also helping in this process by transferring experienced employees in key manager and supervising positions in TTMC. This joint venture uses a large number of local parts suppliers for its needs (more than 50% of all parts are manufactured in China). For that reason TMC strongly encourage efficient foreign suppliers to invest in Chinese market (Lee and Fujimoto 2003).

Prior to this joint venture, in 2000 Toyota started to produce mid-size buses named “Coaster” in the Sichuan province. The joint venture, Sichuan Toyota, was set up in 1998 between Toyota and Sichuan Travel Automobile. Some of the employees were sent on a monthly basis to Japan to pick up and learn about essentials of TPS. Sichuan Toyota had some basic features that characterized the joint venture. Firstly, full production standardization was hard to achieve. Secondly, due to cheap labor cost in Sichuan province, Sichuan Toyota set up an employment system based on specific job activities and clear job responsibilities. Thirdly, Sichuan Toyota had to keep large inventory of parts due to its big distance from major parts suppliers based mainly in Tianjin and Shanghai. The quality of parts produced by subcontractors was also a big issue for this joint venture. That is why, Sichuan Toyota provided technical support for local parts manufacturers (Liu and Brookfield 2006).

Toyota also negotiated with Beijing Auto Works for establishing a long-term partnership. Eventually, Toyota refused to transfer technology for car manufacturing. The negotiations
ended up in a similar way with Shanghai Automotive Industry Corporation (SAIC) in 1995 because Toyota refused to meet the minimum technological transfer set by the Chinese government. In the meantime, in 2002 FAW, the largest automotive group in China, acquired Toyota’s partner TAIC. Toyota and FAW announced their strategic alliance in August 2002. Consequently, Toyota and FAW agreed on a new joint venture to produce a wide range of automobiles including luxury sedans, SUVs and compact cars. (Gallagher 2003). This partnership gave Toyota the opportunity to further expand its Chinese presence. Fujio Cho, at the time president of TMC and as of now chairman of TMC, noted back in 2002 that the two companies have maintained a fruitful relationship throughout the years by mutual visits. It was planned that the joint venture should produce about 300,000-400,000 vehicles per annum by 2010. Vehicles were to be manufactured in existing FAW plants (with technical support by Toyota), existing plants of TMCI and new TMCI plants that were planned to be build by 2005. It was also planned that the joint venture Sichuan Toyota Motor Co. Ltd. (STMC) in Chengdu City, Sichuan province would manufacture SUVs under the Toyota brand. Another aspect of the alliance was the establishment of a joint sales company that would support sales and marketing activities. In addition, TMC agreed on supporting the development of a FAW-branded vehicle. The goal was to establish full-line production in China. As Fujio Cho noted “We are going to deepen our cooperation relationship in extensive areas from R&D, sales to services” (Lee and Fujimoto 2003). Toyota and FAW will be opening a new joint-venture plant by early 2012 with a production capacity of 100,000 vehicles annually (Toyota official website 2011).

In 2004, Toyota announced its plans to establish a partnership with another Chinese company - Guangzhou Automobile Group. Two joint ventures were set up, one for engine manufacturing and a passenger vehicle assembly plant (Toyota’s second in China), both in the Guangdong province. At that time some 15 suppliers of TMC have already established their plants in the area of Guangzhou, Guangdong province.

Toyota increased its sales in 2010 with 18% compared to 2009 and reached total sales in China of 857 thousand cars. The company produced about 770 thousand vehicles in China and rest of the sales are from imports (see Appendix 1).
5.3.3 The future goals of Toyota in China
On March 16th 2011, Toyota announced its new 5-year global development strategy. China will remain Toyota’s most important and biggest market in the future. The goal is China to count for 15% of TMC global sales. By 2015, the company is aiming to sell 1.5 million vehicles annually in China alone. In order to reach this goal Toyota must double its sales in the next 5 years. Toyota and its Chinese partners from FAW and Guangzhou will expand capacity in multiple locations in order to reach the sales goals. In addition, the company will also put more focus on its sustainable development in China. Toyota will invest in developing a new plug-in hybrid car for China in addition to its hybrid Prius which was launched in China in 2009. Toyota also plans to localize itself more in China by hiring more local talent and managers in order to help Toyota avoid issues (China Business Focus n.d.). Meanwhile, in 2010, TMC announced its plan to invest as much as 689 million US dollars in a wholly-owned R&D center in Jiangsu province. The center will begin operations in late 2011. It will be the biggest R&D center of Toyota worldwide. The main focus will be the development of energy vehicles and models that can meet local demand. This serves to show that Toyota considers China not only as one of its most important manufacturing bases but also as an important global R&D base (Toyota official website 2011).

5.3.4 Toyota: Analysis based on the OLI paradigm

5.3.4.1 Ownership advantage
It has been widely regarded that one of Toyota’s distinctive ownership advantages/core competences is their manufacturing system also known as TPS. The company manages material and inventory flows in such a way that it ensures inventory is sufficient at any time to meet customer demand. This perfection of just-in-time system and kaizen principles (continuous improvement) makes Toyota one of the world’s most efficient companies. Kaizen principles are deeply rooted in all areas and processes. Other parts of the value chain are also dealt with benchmark excellence. In Toyota’s operations, for example, are applied efficient automated assembly processes with embedded quality control systems, thus providing top quality of its final products. Overall, its value chain activities and the value chain activities of its suppliers are perfectly linked and synchronized with one another. In order to achieve this excellent synchronization, Toyota continuously trains its suppliers and dealers in the TPS culture. Another aspect of the TPS is the use of Kanban. It enables Toyota to order a new part as soon as this part is used, thus reducing communication time. This is Toyota’s most
distinctive advantage over its competitors. TPS has become a benchmark in world’s auto industry with many of the carmakers failing to replicate or match. This all defines Toyota’s incredible lead-time. According to Liker (2001), Toyota aims and succeeds at delivering outstanding quality products and services with great value added to their customers. Kaizen and JIT are the two most important pillars of TPS, which distinguish Toyota from other carmakers. Toyota’s TPS integrates perfectly inventory control, supply chain management, assembly and subassemblies, parts manufacturing, total quality control practices, systems for managing innovation and kaizen and production scheduling. For example, GM conducted a study in 1980’s that found that on a Toyota’s assembly line a changeover from one model to another took eight minutes, while for GM this time is eight hours (Camp 1989).

One of Toyota’s core competencies that puts them far ahead of other carmakers is the corporate culture and especially the way Toyota treats its employees and customers i.e. their human resource management (HRM). Toyota believes that their HRM lays outstanding foundation for completing Toyota’s mission and objectives. Effective HRM establishes good corporate culture and ensures high quality of production processes. TMC views its personnel as a way to improve productivity and quality significantly. On the other hand, GM and other car companies would rather take its employees as a commodity, something that could be easily replaced. It should be noted that the culture of Toyota is not only embedded in the corporation itself but also in their suppliers’ cultures. The Japanese emphasis of the group over the individual also has helped promotion of devotion to the company. The respect for people and kaizen principles once again are core to this unique corporate culture that makes the TPS to work so well. As already mentioned, Toyota undertakes many trainings of its suppliers and car dealers in order to ensure that the core values of its corporate culture are also core values for its suppliers and dealers.

Toyota’s brand recognition gives the company another advantage over its competitors. Toyota’s name is worldwide known. The fact that TMC cars and parts are labeled as “Made by Toyota” rather than “Made in (country)” speaks for the market strength of the brand (Toyota official website 2011).
Another area of Toyota’s core competences is the hybrid car segment in which it has a first-mover advantage. By being first in this market segment TMC had the opportunity to gain experience and knowledge and benefit from it over its competitors. Toyota Prius is the best selling hybrid vehicle in the world and was introduced back in 1997.

Overall, the ownership advantages of Toyota such as its TPS, top quality, brand recognition, corporate culture, human resource management, anticipation of future auto trends and innovation makes Toyota the number one car company in the world and gives them self-assurance to invest abroad.

5.3.4.2 Location advantage
In order to utilize its ownership advantages in the best possible way, Toyota has chosen the Chinese market for its great location advantages that it offers. Most of all, the Chinese market size plays crucial role in attracting foreign FDI. Chinese economy is one of the fastest growing economies in the world. Even in a time of severe economic recession in 2009, China became the world’s top manufacturer as well as largest market of automobiles, surpassing respectively Japan and the USA. In 2010, sales in China were 13.8 million cars, which represents growth of 33% compared to 2009. Sales have jumped 10 times in the last 10 years. In addition, total production of automobiles in 2010 was 13.9 million vehicles, which is an increase of 34% on a year-to-year basis (Bloomberg news 2011). Such a tremendous growth was mainly achieved through establishing of numerous Sino-foreign joint ventures. One of the reasons explaining this boom is the increasing demand. The continuous increase in people’s income, especially of those living in the cities boosts sales. It is considered that if GDP per capita surpasses USD 1,000, the country will experience increased demand for passenger vehicles. As shown in Appendix 2, Chinese GDP per capita is well over this threshold for quite some time now. The real GDP growth is estimated to keep its current trends for the next few years.

Other factors such as political and industrial will have also spurred sales and production. Chinese government has played instrumental role in making its car industry number one in the world. As a pillar industry in the Chinese economy, the government has been encouraging FDI under strict legislation and investment incentives. The reduction of tariff and non-tariff barriers (such as quotas). In order to be admitted to the WTO in 2001, Chinese government
was obliged to reduce some of its protectionist measures. Reductions included import tariff ratio, which fell from 22.1% to 17%. The tariff was also decreased from 80% to 25% by 2006. Trade was further facilitated by abolition of quotas for both imports and exports of cars by the end of 2004 and foreign carmakers could directly import and export their cars without the help of agents. Chinese government also facilitated FDI in the automobile sector at the time of its WTO admission by eliminating limits for types of vehicles produced by foreign companies, allowing joint production of engines, providing car loans by foreign carmakers, etc. Other policies that further facilitated FDI inflows were decrease of local content requirements and dismissing regulations on imports of auto parts. Regional or province protectionist policies, such as entry barriers, were also heavily decreased. In 2004 the new “Automotive industry development policy” was released. It was widely influenced by Chinese WTO accession and rising demand in the sector. Local content requirements and limitations on FDI provisions were abolished.

The special economic zones (SEZ) and the “open door” policy that was initiated in 1970’s strongly facilitate FDI in the Chinese car industry. The manufacturing and transportation infrastructure has vastly improved in those SEZs and around big cities especially on the eastern coast.

Low manufacturing costs also influenced high investment rates in the industry. Compared to developed countries such as Japan, China offered relatively cheap and qualified labour force to work in the auto industry. Foreign companies would want to foster this abundant pool of cheap and qualified workers in order to cut production costs.

China, as a rapidly developing and emerging market, has shown great growth potential for its car industry, which will not cease in the near future. Moreover, its strategic location, geographic closeness to Japan, large seaports and land borders with other Asian countries and central position within the continent put extra emphasis on its location advantages.

Obviously, agglomeration economies play critical role in Toyota’s entry strategy. As mentioned in the case above, Toyota and its suppliers started to cluster in provinces in which Toyota planned to establish production plants, thus easing the corporation’s entry into the Chinese market.
To sum up, all these factors laid great foundation for Toyota’s entry into the Chinese car industry. It seems that there are four main drivers that define high speed FDI activity in the Chinese car industry. First, the steady and fast development of the macroeconomic environment of China. Second, the political will in terms lowering taxes, barriers, quotas and tariffs, which helped fast growth of the automobile market. Third, the large market size and growth potential as well as growing purchasing capacity of the Chinese people. Finally, car consumption is increased by heavy urbanization and industrialization processes. In addition, in Toyota’s case, the pre-clusterization process that was initiated by TMC, helped in creating agglomeration economies, which are to be fully exploited by Toyota after its full entry.

5.3.4.3 Internalization advantage

Toyota has started exporting cars to China since 1960’s and later on, especially in the 1990’s, initiated a series FDI operations prior to establishing production joint ventures. This process of pre-clusterization was strongly supported by its keiretsu suppliers, which entered the market before TMC. This internationalization process was almost identical to Toyota’s entry into the US market and is typical for risk-averse countries such as Japan. This will be further discussed in the next subchapter.

Although Toyota’s supplier network is of crucial importance in terms of “just-in-time” parts supply and quality control, car assembly is always undertaken with Toyota’s participation. This ensures better quality control. The key here is that no matter where the assembly takes place, the quality of end products will still be the same. Due to this very important quality control, which is also one of the company’s most distinguished ownership advantages, Toyota must internalize the process of car assembly manufacturing. If this process was contracted to a third party without the adequate participation of Toyota then it is less likely that this ownership advantage would be exploited in such a successful way. Because of the importance, especially of first-tier suppliers, Toyota involves them in R&D activities. Moreover, the company involves supplier’s employees in heavy trainings and keep very close relationship with them. This is due to the fact that Toyota needs to have outstanding quality control. Work between Toyota and its suppliers is of mutual benefit.

TMC obviously puts great deal of importance on quality and therefore it must have very good level of control in order to ensure that quality standards are met. This is achieved through
internalization of all important elements of its business. Internalizing can prevent unwanted technology transfer. Moreover, intellectual property rights are a big issue in China. Therefore, it is advantageous for Toyota to internalize its ownership advantages in order to protect and develop itself in this growing market. Chinese authorities have imposed many regulations in the car industry, that’s why issues related to intellectual property rights, technology transfer and quality control become even more important in the case of China.

Despite of Chinese abundant labor force, for Toyota it is crucial to train employees internally in accordance with its corporate culture. This one of the most distinctive features of Toyota. Employees are those who make sure that only good quality parts and products advance on the assembly line. Trainings are held internally by Toyota and quite often key personnel is sent to Japan. Suppliers’ employees are also trained by Toyota to ensure consistency of values and goals.

5.3.5 Toyota and its Chinese partners: Analysis based on the CAGE framework

5.3.5.1 Cultural distance
The cultural differences between China and Japan are not as obvious as those between China and the other two countries discussed in this thesis, namely USA and Germany. In order to measure different aspects of the culture, Hofstede’s cultural dimensions will be discussed with regard to Japan and China.

Figure 17 Geert Hofstede Cultural Dimensions Japan vs. China

Source: http://www.geert-hofstede.com/

Japan ranks an average score of 50 on the power distance dimension, as shown on the figure above, which means that there is a well-defined hierarchy in both work and society. Establishing respect and trust is very essential among subordinates at work. Understanding
the position of the person one does business with is very important for successful partnerships. On the other hand, China scores 80 on the power distance index, which is quite above the average level for other Asian countries. This shows that there is a great deal of inequality in the Chinese society in terms of power and wealth distribution. In China hierarchy is even more important than in Japan.

In terms of individualism, both countries score low. However, China’s result shows that the society and the local business environment are strongly committed to their respective groups such as family, work, etc. Therefore, loyalty is much appreciated in China and strong relationships are of vital importance. In this line of thoughts, Chinese guanxi, as already discussed in the previous chapter, is considered as one of the most important traits of doing business in the country. Collectivism of Chinese society is one major feature that must be taken into deep consideration by every foreign company. Although, a little less expressed, Japanese are also a collectivist society and the success of the organization is very dependent on group effort.

The next cultural dimension is masculinity. Japan scores 90 on this dimension, which is more than any other country in the world. This serves to show that Japanese are very assertive, masculine and separation between genders is quite big. Japanese usually live in order to work rather than work in order to live (Fredric and Jun 2003). Mixing of personal and work matters is avoided in Japan. Considered as workaholics, Japanese prefer to work with clear and well-defined tasks. Japanese undertake much training, especially in the beginning of their careers. This further defines their masculine feature and devotion to work. Toyota has been organizing series of trainings to its Chinese counterparts, even before it actually entered China, in order to help foreign employees understand and accept Toyota’s cultural characteristics. On the other hand, China scores an average result and aligns itself with most of the countries.

The fourth dimension is the uncertainty avoidance index. Japan scores 90 on this index, which ranks them among the most risk-averse nations in the world. This means that Japanese feel highly uncomfortable when dealing with risky and uncertain situations. They tend to use protocol and rules to avoid making mistakes. The reason for this is to try to avoid conflict and maintain harmony. Drastic changes are also avoided. Due to their natural risk-aversion,
Toyota entered China incrementally – first, by exporting, then by establishing a cluster of suppliers and supportive activities such as parts manufacturing and marketing and sales functions and finally by creating of a joint venture for car assembly. This non-aggressive path is the main reason for Toyota’s relatively small market share in China compared to other foreign carmakers. Unlike Japan, China only scores 38 on uncertainty avoidance. However, this might be quite decisive. Although, in some cases laws and rules might be neglected (as for example laws with respect to intellectual property rights), the cultural expectancy tends to control behavior. In this case, the fear of losing face in front of society and family defines Chinese behavior.

The last dimension of culture is long-term orientation. Japan, as other Asian countries score high – almost 80. This means that they are future oriented. The long-term orientation also relates to Japanese lifetime loyalty to work and the group it belongs to. The “loosing face” aspect is also correlated to the long-term orientation of people. With respect to the long-term orientation, China scores the highest – 118. For both cultures, it is common to overcome problems with time rather than with strength and will.

Overall, China and Japan are not that far away from each other in terms of culture as opposed to Germany and the USA. Both countries score similarly on the power distance index, although it is slightly more obvious for China. Therefore, Toyota easily established its corporate hierarchy in China. It further facilitated the proper control for the transplantation of Toyota’s TPS and since China scores the highest on this it was mutually beneficial for Toyota and its local partner. Both countries are also collectivist societies, which means successful partnership is achieved through group effort. In terms of Hofstede’s dimension, Japan and China are relatively similar but other cultural attributes need to be taken into consideration in order to fully understand the cultural distance between the two countries. Obviously both languages are different and among the hardest to learn in the world. Given the importance of guanxi and Japan’s negative image in China it is more difficult for Toyota to establish and nurture effective local business networks. For instance, TMC lost the bid to GM for a joint venture with SAIC in 1995. With respect to religion, despite Chinese official religion being atheism, both countries share Buddhism and principles of Confucianism. Japan and China have had many conflicts throughout the years and Toyota must have been more sensitive in
terms of this. For example, Toyota launched a commercial of one of its cars with a traditional Chinese-style stone-carved lion saluting the passing car. This was negatively perceived by local consumers and was taken as an insult. This was just one of the several commercials that Toyota wrongly aired in China, not taken into account Chinese pride and culture. To make things even worse, TMC failed to address this issue and make a public apology on time (Fan 2007). This was a typical example of Japanese fear of losing face publicly and their tendency to overcome problems with time. This was once more proven with Toyota’s big recall crisis from 2010 due to technical failure of some car parts. The company initially denied the Chinese market was affected but later on after some pleasure from outside, admitted. Both examples caused great deal of reputation damage. According to a recent survey carried out by Global Times, Toyota is the least favorite foreign car brand among Chinese consumers (China Business Focus n.d.). Due to its strong brand image, though, as well as the growing market, Toyota managed to expand its market share although not with the expected rate. Toyota also failed to launch enough car models in China, especially in the low price range, compared to other foreign carmakers. For example, GM has more than 40 car brands in China, of which many have been engineered locally (GM official website 2011), while Toyota produces less than 10 (Toyota official website 2011). Not aligning with customers’ preference for compact low cost cars is one of the reasons why Toyota was not able to boost sales as market leaders VW and GM. Recently TMC announced its plans to launch a low-priced compact car in 2013, which is a step towards satisfying customers’ preferences (In Auto News 2011). Toyota’s strategy in China is for customers to identify its brands with high quality and high technology, but they missed the point that most customers in China make decisions according to price rather than quality. This tendency is slowly changing as income grows as well as the number of Chinese millionaires, but for now price is still the predominant determinant for car purchase as prices of cars in China are higher compared to USA for example. To sum up, although the evident similarities between China and Japan, Toyota still made some mistakes with regard to culture. If the company wants to become number one on the Chinese market as well it needs to take seriously into consideration cultural attributes such as customer preferences, etc.
5.3.5.2 Administrative or political distance
With respect to administrative/political distance between Japan and China, of most importance are attributes such as government policies, political hostility, institutional weakness, absence of shared monetary or political association, etc.

Government policies in China such as tariffs, quotas, local content requirements and taxes were something compulsory for the auto industry as it was declared by Chinese authorities as a pillar industry in the country’s economy. As such, the Chinese automobile industry was heavily regulated and protected by local government. With China’s WTO admission, quotas and local content requirements were eliminated and tariffs were significantly decreased. In addition, other incentives such as lower taxes on compact and environment friendly cars were offered to customers, thus further boosting demand. However, regulation and some protectionism will hardly be abolished by Chinese authorities in the near future, as Chinese auto industry is now the biggest in the world. For example, 50% equity threshold in joint venture partnerships for foreign carmakers and transfer of technology will be here to stay for years to come. As a market leader in the hybrid segment, Toyota can benefit from incentives and demand for greener automobiles.

Another attribute of administrative distance is the level of development of the host country institutional infrastructure. This is one area in which China has to improve a lot more in order to increase its attractiveness to FDI. Chinese legal system and intellectual property protection have been immensely criticized. This is one major obstacle for foreign carmakers because they need to be sure in their technology protection in order to transfer state-of-the-art technology. For example, Toyota lost a lawsuit in 2003 to Chinese private car manufacturer Geely as local court ruled that both logos are clearly distinct (Los Angeles Times 2003). China scores a corruption index of 3.5 as of 2010, which ranks the country on 78th position out of 178 countries. Here is another big difference with Japan as it is ranked 17th in the world with a score of 7.8 (Transparency international 2010). This serves to show that Japanese would regard China as risky for doing business.

Both countries have negative relationship in historical plan. The Japanese invasion in China in 1930’s and the following Sino-Japanese war have been a great burden for them. Chinese perception for Japan is relatively negative. Therefore, Toyota’s recent recall crisis and the
before mentioned commercial adds have had a negative outcry in China and hurt the company’s reputation.

To sum up, the administrative/political distance between Japan and China is quite obvious and significant. Therefore, Toyota’s operations in China have been facing serious obstacles throughout the years. The company needs to be very sensitive in every action it takes in China because of the historical issues between both countries. In addition, more focus must be headed towards green automobiles as this is the future of the industry and will definitely help Toyota recapture its good reputation.

5.3.5.3 Geographic distance

Figure 18 Map of China and Japan

Several attributes of geographic distance will be taken into consideration in order to measure how close actually to each other Japan and China are. Physical remoteness, sea and river access, transportation and communication infrastructures are among the most common attributes of geographic distance and they will be used and discussed with respect to China and Japan.

Both countries are strategically located in the northeastern parts of Asia and are only separated by East China Sea, which serves to prove that the physical remoteness of both countries is insignificant. Since China is enormous in terms of size, it is better to consider Toyota’s strategic location in China when comparing and analyzing geographic distance. TMC has established production operation in two major locations in China – Guangzhou and Tianjin. A much smaller production facility is situated in Chengdu (Sichuan province).
Moreover, Toyota’s main facilities are situated on the eastern coast of China, which further decreases the impact of geographic distance. Physical distance between Tokyo and Tianjin is just 2,000 km. and between Tokyo and Guangzhou is almost 3,000 km. Such figures are not significant for China as even distances within the country might exceed these figures twice. Enjoying such a close distance to each other, Japan and China also benefit from being separated by just one-hour time difference, which is very important for conducting business.

China has a big coastline on the east, which further narrows the physical distance with Japan. As already mentioned, Toyota’s main plants are established in Tianjin and Guangzhou. These cities are among the biggest Chinese ports and are major transportation centers. As such, Tianjin and Guangzhou have sophisticated transportation infrastructures. Moreover, Toyota, with the help of its keiretsu suppliers and local partners, has been establishing a modern transportation, communication and manufacturing infrastructure in Tianjin and Guangzhou quite before its actual entry. This process, as already mentioned earlier, is known as pre-clustering. Communication between China and Japan is easier to manage in terms of time since both countries, as already noted, are separated by just one-hour time difference. Chinese telecommunication infrastructure is developing quickly since major investments and consolidation occurred in the past decade, thus further narrowing the gap with Japan’s excellent communication infrastructure (The world fact book 2011).

To sum up, in terms of geographic distance China and Japan are much closer compared to USA and Germany. Toyota definitely gains from the closeness between the two countries as it regularly organizes trainings of Chinese employees in Japan. Furthermore, due to requirements for close supervision of proper implementation of TPS, closeness is of significant importance for Toyota. The company strategically chose to establish plants and clusters on the eastern coast of China, thus further decreasing the distance and transportation costs. In addition, the presence of just one-hour time difference, China’s improving communication and transportation infrastructures and the presence of big ports, especially in Tianjin and Guangzhou, makes the geographic distance more insignificant for Toyota. Importing cars and parts from Japan would not have been that cheaper if the distance was much greater.
5.3.5.4 Economic distance

With respect to economic distance, as Ghemawat (2001) points out, the most important attribute is the level of consumers’ income. Other attributes are difference in cost or quality of labor resources, natural resources, infrastructure, information, etc.

China has experienced rapid growth in the last decades and Chinese gross national income (GNI) has been increasing. As of 2010 the GNI per capita is 4,260 US$, which means it is an upper middle income, but it is far greater in large cities, which increases demand for automobiles (World Bank 2011). Therefore, the sustainable raising income of consumers will be boosting demand even more, thus creating more market opportunities for carmakers. Japan, as a developed country, has GNI per capita of 42,150 US$, which is a very high income (World Bank 2011). This shows great disproportions in terms of consumer’s income between China and Japan. Therefore, Japanese companies should take this into consideration and market cheaper and compact cars in China as nature of demand varies significantly with differences in income level. Toyota failed to do so in the beginning of its production in China and that is why it struggles to catch up with market leaders VW and GM. The company sensed that it needed cheaper models and plans to launch a cheap vehicle on the market in 2013.

Differences in labor costs are another attribute that creates distance. Cheap labor could be very beneficial in cases where no specific skills are required, but in the auto industry skilled labor force is essential. China can offer abundant, skilled and relatively cheap labor in this industry. However, Toyota, because of its unique production system needs extensive and constant trainings of its Chinese employees in order to achieve high quality standards.

The quality of transportation, communication and manufacturing infrastructures in China can vary significantly across regions. Eastern China has much more developed infrastructure than other regions in China. That is why most of the carmakers have clustered around these coastal areas. This is true for Toyota as well, which enjoys great cluster of suppliers, sales offices and assembly plants in both Tianjin and Guangzhou.

To sum up, the economic distance between Japan and China is quite high. However, the rapid development and the high growth rates of the Chinese economy and auto industry and
consumers’ income levels serve to prove that the large economic distance is actually misleading. In addition, Chinese huge market also plays instrumental role in attracting world leading carmakers. On the other hand, current income levels must be taken into consideration when deciding what car models should be launched in China. That was one of the big mistakes of Toyota – not to market cheap enough vehicle in order to meet customers’ income levels.
6 Sustainable trends in the Chinese automobile industry

The automobile sector is the largest source of CO2 emissions in the world. Therefore, the industry has been working hard looking for new technologies in order to lower these emissions significantly. This is increasingly relevant issue for the Chinese automobile industry even before the country became the world’s largest market and producer of vehicles. Investment in low-carbon hybrid (HEV), plug-in hybrid (PHEV) and electric vehicles (EV) is an imperative for overcoming environmental issues. To address this sustainable trend in the sector, Chinese authorities must work closely with foreign and local carmakers and try to achieve some challenges such as higher transfer of state-of-the-art low-carbon technologies and higher local R&D input by both foreign and local car manufacturers, increasing consumer awareness, production and use of renewable energy etc. Customers’ demand and government incentives will spur greener vehicles in the industry. It is predicted that by 2020 every third car in emerging countries will be either hybrid or electric engine (Deloitte 2009). Chinese government is set to shape the future outlook of not only its own but also the global auto industry as it is becoming the most important market in the world. Investment incentives towards renewable energy and environmental policies as well as support for domestic carmakers will be instrumental. In order to keep up with new tendencies major carmakers and their suppliers have to be proactive to meet these challenges. According to the authors of this thesis two major drivers will be defining the sustainable trends of the automobile market in China – consumer demand and preferences and government policies and incentives.

Consumer preferences will change significantly the demand for cars in China in the next 10 years. This means that carmakers will have to take seriously into consideration regional demand. Consumers in emerging markets such as China will put more focus on luxury and greener automobiles, while current preferences lean towards compact and cheaper cars. In last couple of years customers showed little willingness to pay more for green technologies as they remain expensive. Stimulating consumer demand and developing more efficient and inexpensive green technologies will put these carmakers ahead of others with good profits and sustainable growth. In China, the income of consumers will continue to keep its sustainable growth in the near future, which will inevitably affect their preferences. As of 2008 the number of cars per 1,000 people was 22 in China (see Appendix 3). This number will significantly grow in the next 10 years and this serves to show that demand for cars will likely keep its growth (see Appendix 3). The number of Chinese people buying a car for the first
time will continue to grow. Along with increasing income level, Chinese consumers will increase their expectations as well and will put more emphasis on things such as added value. Price consideration will not be the guiding principle when purchasing cars. Value-oriented cars with more safety and green technology features will gain momentum in the next 10 years. However, China’s huge territory and difference in income level, which significantly varies in inner rural areas compared to the rich coastal regions on the east, mean that carmakers will have to be even more sensitive to consumers’ preferences. As a Ford executive recently said, “In the interior of the country, there has been movement from motorcycles to small cars but price remains the most important factor. But individuals in coastal areas are willing to spend money on the latest and greatest and on a global product. They see themselves as part of the global market.”. The emergence of the luxury car segment, especially in the coastal areas, gives the carmakers the opportunity to exploit it by expanding their car portfolios in China (Deloitte 2009).

The rising prices of oil and environmental concerns such as global warming will also shape demand and preferences for automobiles. Vehicles that rely less on fossil fuels such as hybrid cars or use renewable sources of energy like electric cars will be much more desired. One major problem, which significantly puts EVs in a disadvantageous position, is the fact that technologies, such as batteries, are still quite expansive. Carmakers along with the support of governments are challenged now to achieve such manufacturing efficiencies that will make EVs less expansive. This may boost sales as most first-time buyers take into account price when purchasing. Currently, HEVs and EVs are a small fraction of total vehicles on the road. The adoption of EVs has been delayed for several reasons – higher prices of EVs, limited range, lack of infrastructure and not enough government incentives. By 2008 HEVs in China represented only 0.00028 of the market, which is 2,617 vehicles total (Genovese et al. 2010).

In China, consumer preferences towards EVs and HEVs are to a large extent influenced by government tax incentives. For example, Chinese authorities have introduced tax cuts on vehicles with engines under 1.6 liters. China is one of the few countries in the world that offer EV subsidy (up to 7,000 US $) for potential customers (Deloitte 2010). Reducing pollution in the big cities in China has been a great challenge for local authorities in the last decade. Therefore, demand for EVs will be greatly influenced by government regulation and
incentives. In Beijing, for example, local officials have put a limit of 240,000 on the issuance of car license plates. Similarly, in Shanghai, local government makes actions for every car plate and prices can go as high as 5,000 US$ (Miller 2011). Moreover, in the 12th five-year plan, the Chinese government has put significant focus on becoming a lower carbon economy (see Appendix 4). In addition, China has set the goal to have 500,000-1,000,000 new-energy vehicles on the roads by 2015. Moreover, the government will provide by 2015 7.6 billion US$ for R&D as well as 7.6 billion US$ in subsidies for consumers and infrastructure (Hannon et al 2011). Central and some local governments’ consumers can get private subsidies up to 18,000 US$. Interestingly, China’s main source of CO2 pollution is not cars on the road but rather big coal-powered plants. However, Chinese government’s goal to be the leading manufacturer of HVs and EVs will likely increase demand by introducing a set of incentives, subsidies and tax breaks in order to accelerate adoption among Chinese consumers (Deloitte 2010). In this line of thoughts, HVs may play crucial role in the transition to EVs. HEVs have recently been recategorized as efficient vehicles rather than new-energy vehicles. The main advantages of HEVs are lower CO2 emissions compared to traditional internal combustion engines, greater fuel efficient and less reliance on specific infrastructure.

There is hardly a car manufacturer, both local and foreign, in China that has not considered EVs as part of their future sustainable growth. It is considered that new joint ventures between foreign and local companies will change the model of transferring technology from outside. Joint R&D centers will put significant focus on developing cheaper, smaller and long-lasting Lithium-ion batteries. It is estimated that the cost of batteries will drop by 2015 from current 0.5-0.9 US$/Wh. To support EVs, Chinese companies are currently building the required infrastructure (Hannon et al 2011).

Toyota emerges as one of the market leaders in the field of low-carbon vehicles. The management decisions have been towards greener technologies, which will be the key for long-term competitiveness. The company has below average sensitivity to carbon constraints set by governments and it puts Toyota in a better position compared to VW and GM (World Resource Institute 2011). Toyota is the market leader in the hybrid segment with its Prius. The company started production of its Prius model in China in 2005 but by 2010 the hard reality is that it has not been as successful in China as in other countries. There have been sold just over
1,000 Prius per annum in China, which is a small fraction of total 16 million sold worldwide (Dunne 2010). Due to the small sales number, Toyota decided to stop production of Prius locally and instead to import it. But the problem here is that local government gives subsidies for green cars only to locally produced cars. Therefore, Toyota has postponed the introduction of the new Prius until the rules of the new green car policy are clear (Tycho 2011). In 2010 TMC introduces the hybrid variant of its famous Camry model as well as Lexus Hybrid model. The president of Toyota, Akido Toyoda, announced in early 2011 that the company will introduce all of its green technologies in China. The new R&D center in China will develop alternative EVs (Courtney 2011). By doing so Toyota surprised competition, which have been cautious with transferring their latest technology. Toyota has the opportunity to become market leader in this very promising segment in China.

VW is a world leader in selling low-carbon emission cars. The company derives more than 90% of its global profit from vehicles with low and medium carbon intensity (World resource institute 2011). The company shows that environmental protection and automobile progress can go hand in hand. VW has started its Blue Motion Technologies program. It is an umbrella brand for all green and fuel-efficient vehicles and technologies. As part of this program, VW in China has been able to reduce the consumption of its vehicles with 20%. E-Lavida is the first vehicle with an electric motor and battery developed in China. VW will introduce in 2013-2014 their first locally produced EV and the goal is that these vehicles will not only be eco friendly but also affordable and reliable (Winterkorn 2011). In the last few years, VW transferred quite a lot of their green technologies to China as they anticipate the green car segment to define the future of the industry. This decision has proved to be right as Lavida sales has raised with over 60% in 2010 compared to 2009 (Volkswagen 2010). VW’s e-mobility strategy for China will address exclusively local needs and will deploy the entire Blue Motion technology base of the carmaker. As the CEO of VW AG stated “Our goal is market leadership in e-Mobility by 2018. China is the world's most important market for the Volkswagen Group, and the success of e-mobility in China is crucial to the global implementation of the e-Mobility strategy.” (Bristow 2011).

GM seriously lags behind VW in terms of profit from low carbon vehicle. The company derives more than 70% of its profits from cars that emit more than 270 g. CO2/km (World resource institute 2011). This is mainly due to the great share of US market and local
preferences towards SUVs and other fuel intensive cars. It is a great challenge for GM to overcome this current situation and move towards more sustainable green development, especially since governments are increasingly sensitive and are implementing more and more carbon constraints. This makes GM very vulnerable in terms of tighter regulation and lower emission standards. GM recently launched its awaited Volt, which is a PHEV. At the 2010 Shanghai Auto Expo, GM introduced its Chevrolet Equinox Fuel Cell EV as well as its famous Chevrolet Volt. In addition, GM has been working on increasing the efficiency of traditional internal combustion engine cars, where GM lags significantly. GM was the first company in China to launch volume production of hybrid cars – its Buick LaCrosse Eco-Hybrid (Miller 2011).

To sum up, in the next decade the Chinese automobile industry will go through significant changes. It will be by far the largest market and producer of cars in the world leading with a big margin to the second placed country. Price will still be a defining factor in purchasing decisions, especially with rising income of population of rural areas and the ongoing urbanization. Therefore, carmakers must find ways to exploit the emerging EVs segment by finding ways to decrease EVs prices. China has laid a great foundation for further development and adoption of greener technologies. The country is the world’s largest manufacturer of solar panels, it has installed the world’s largest wind power capacity and has been developing a dynamic market for EVs (Hannon et al 2011). The three carmakers seem to be following these trends although with different pace. GM is definitely lagging behind Toyota and VW in terms of green cars. They are facing huge challenge to overcome the tendency of producing high fuel intensive vehicles. Currently, Toyota stands alone among the three as best green car manufacturer. However, Toyota’s problems that the company has faced recently in China and the historical tension between Japan and China gives other carmakers an opportunity to catch up. In addition, GM and VW are the current market leaders in China and have well established themselves with strong political ties which inevitably gives them a handicap in competing with Toyota. Overall, every of the three companies stand a chance in this promising segment and with regulation and policies under consideration we will be able to see a clearer picture in the next couple of years.
7 Conclusion Chapter

China as being the world’s largest automobile manufacturing country since 2009 is one of the most attractive investment destinations for foreign automakers. Exactly this huge market potential and sustainable growth urges the three most powerful car manufacturers: General Motors, Volkswagen and Toyota to establish joint ventures in China.

The three companies manage to successfully integrate their core competencies in terms of technological advantage in quality, innovation, and energy efficiency in the foreign market. The strong brand recognition of their models sustains their high market share in the automobile industry in China. Of no less importance is the fact that GM, VW and Toyota have chosen very strategic locations of their operations, and namely the most profitable and developed Chinese regions mostly on the East coast.

General Motors’s and Volkswagen’s investment strategies in China are market-oriented. As it has already been mentioned the market size and sustainable growth are the main drivers for the two companies’ foreign direct investments in China. Of no less importance are the political incentives implemented in the automobile industry by the Chinese government and their positive effect on the development of the domestic consumption of cars.

Despite the vast cultural, administrative, geographic and economic distance between General Motors’ and Volkswagen’s home countries with respect to China, the biggest European and U.S. automobile manufacturers have taken into consideration the most important distance determinant factors, and the successful operations of their joint ventures is an unprecedented sign for this.

In this regard, the American giant: General Motors, despite its late entrance in the Chinese automobile industry, has managed to outperform its competitors and become the leader in 2010. The U.S. company has obviously carefully contemplated on the above mentioned distance determinants in order to build a winning strategy in the host market. By respecting the cultural and economic distance between the two countries, GM has been able to offer its customers the most desirable products by meeting their needs and demands. Of no less importance is the fact that, GM has managed to grasp the benefits of the Chinese government incentive policies in the sector, notwithstanding the vast administrative distance between the
two countries. The enormous geographic remoteness between China and the U.S. has also influenced the company’s decision that it would be most beneficial to establish a JV in China instead of relying on exporting.

The above mentioned facts are also true for the Europe’s biggest automobile manufacturer: Volkswagen. It was one of the first foreign companies to invest in the Chinese market and reaped great benefits out of its first mover’s advantage, by dominating the Chinese automobile industry for 20 years. Despite the fact that in the recent years, VW has lost its market dominance, the German carmaker has realized that in today’s automobile industry in China, in order to be successful and competitive it must not rely on technologically outdated models but only on the up-to-date tendencies in the automobile manufacturing. With its contemporary ideas in hand, the last year has been extremely beneficial for the European giant, realizing great amount of revenues and sales in China.

Toyota’s FDI activities in China are only market-oriented, as are these of VW and GM. This is inevitable as the market is already the biggest in the world and still in the early stages of its development. Therefore, the market size and growth is the main driver for Toyota’s FDIs. Other determinants that influenced Toyota to enter the market are the political will and incentives that have been implemented especially after the WTO accession of China. With respect to the distance dimensions, Toyota seems to score contradictory results. Although, Toyota as a Japanese company is much closer to China than German and US carmakers, it has struggled to take advantage of it. Misplaced commercials, historical tension along with late and improper reaction to last recalls of vehicles have seriously damaged Toyota’s image in China. The political distance is probably the main drawback of Toyota in China. Historical issues between the two countries seem not to be forgotten and Toyota must be extra sensitive with regard to politics or administration. The geographic distance gives Toyota great advantage over GM and VW, as the company can cheaply and easily organize their trainings. Economic distance should be taken into consideration only with respect to consumer income that shapes consumer demand and preferences for automobiles. This is a huge drawback for Toyota as the company failed to meet demand for cheaper cars.
In order the world’s three biggest automobile manufacturers to sustain and improve their competitive position in the world’s biggest car market they should take seriously into consideration the development of new energy vehicles. This is an imperative for Toyota, GM and VW not only because of environmental issues and social responsibility of the companies but also because of the fact that Chinese government has set a plan to become a true environmental friendly and energy efficient economy. By investing in new energy vehicles, the carmakers will reap the benefits and incentives that the government is and will be offering. In addition, until EVs become as popular, attractive, cheap and convenient as traditional fuel fossil cars, the three companies shall continue to put their focus on consumer preferences. The economic development of China will most likely give two sorts of opportunities. First, eastern coastal areas with their faster development and higher incomes will boost demand for luxury automobiles. Second, rural areas will boost demand for compact and cheaper cars as income in those areas is still below average for China and the infrastructure is to be better developed. Therefore, anticipating consumer demand and preferences and taking advantage of government policies will be crucial for the future sustainable growth of carmakers in China.
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Appendix 1. Toyota’s sales and production in China

Source: Toyota official website
## Appendix 2. China’s annual data and forecast

### Annual data and forecast

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<th></th>
<th>2006&lt;sup&gt;a&lt;/sup&gt;</th>
<th>2007&lt;sup&gt;a&lt;/sup&gt;</th>
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<td>Private consumption</td>
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<td>5,753&lt;sup&gt;b&lt;/sup&gt;</td>
<td>6,410&lt;sup&gt;b&lt;/sup&gt;</td>
<td>7,023&lt;sup&gt;b&lt;/sup&gt;</td>
<td>7,739</td>
<td>8,509</td>
<td>9,402</td>
</tr>
</tbody>
</table>

<sup>a</sup> Actual.  <sup>b</sup> Economist Intelligence Unit estimates.  <sup>c</sup> Economist Intelligence Unit forecasts.

*Source: International Monetary Fund, International Financial Statistics*
Appendix 3. Car ownership per 1,000 people and current and future growth rates in China

Figure 13: Number of cars per 1,000 people – 2008

Source: “Automotive Industry Briefing”. Economist Intelligence Unit

Passenger cars per 1,000 citizens, China and India until 2022

Source: CEIC, Bloomberg, Erste Group Research
Appendix 4. Key energy and climate policy goals and indicators in China 2006–2020

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Energy Intensity (% reduction in five years)</td>
<td>20%</td>
<td>18.1%</td>
<td>16%</td>
<td>Not set</td>
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<tr>
<td>Carbon Intensity (% reduction in five years)</td>
<td>Not set</td>
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<td>17%</td>
<td>40-45% vs 2005</td>
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<tr>
<td>New Energy (% of primary energy)</td>
<td>10%</td>
<td>9.6%</td>
<td>11.4%</td>
<td>15%</td>
</tr>
<tr>
<td>Growth Rates</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary Energy Consumption (annual growth)</td>
<td>4%</td>
<td>8.3%</td>
<td>3.75-5%*</td>
<td>–</td>
</tr>
<tr>
<td>Electricity Energy Consumption (annual growth)</td>
<td>–</td>
<td>11%</td>
<td>8.5%*</td>
<td>(5.5%)*</td>
</tr>
<tr>
<td>Electricity Generating Capacity (annual growth)</td>
<td>8.4%*+2,3</td>
<td>13.2%*</td>
<td>8.5%*</td>
<td>(5.6%)*</td>
</tr>
<tr>
<td>GDP (annual growth)</td>
<td>7.5%</td>
<td>10.6%</td>
<td>7%</td>
<td>–</td>
</tr>
</tbody>
</table>

* Asterisked numbers indicate estimates made by government that are not formal targets. Bold numbers are new targets.

Source: Hannon et al 2011
Appendix 5. Car sales in China (%)