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# ENTRY MODES INTO CHINA: THE BREMBO S.P.A. CASE

**Supervisor**

Ch. Prof. Renzo Cavalieri

**Assistant supervisor**

Ch. Prof. Lala Hu

**Graduand**

Eleonora Bassis

Matriculation Number 861632

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## 前言

国际化是公司逐步提高其国际参与和投入程度的一种方式。在国外经营的过程中，该公司可以获得并拓展关于国外市场运作与经营模式的知识，这样一来，可以扩大其在中国的知名度与影响力。简而言之，“国际化”可以定义为公司对于在国外运作的倾向以及在国内的实际运作。在该领域中，外国直接投资（FDI）起到重要的作用。概括而言，这种投资可以被描述为通过投资项目建立国外业务。建立国外业务意味着外国投资者对于在东道国的投资企业有着一定的管理权利。一家公司可以采用许多不同的模式来进入目标市场。科学文献显示，由于往往某一个特定模式会比其他的更适合某一家公司特殊的经营模式，所以企业可以自由选择进入目标市场的方式。鉴于此，选择的复杂性以及它对国外投资者的成败所产生的巨大影响是显而易见的，因为它会影响到公司的竞争优势、控制合伙人的程度、业务的费用与风险与战略目标。从在新兴市场做生意的公司的角度来看，市场进入模式的选择是更复杂的。这些公司的困难在于它们面临来自外界更大的不确定性与来自内部的更多限制因素。虽然公司在不断变化的环境当中必然面临许多的困难与挑战，但是在过去的几十年中国市场是一个中小型企业与跨国公司都想打开的新市场。随着全球化的进程，目前中国的经济发展现状越来越被认可，外国公司越来越认为其值得投资。许多的研究报告证明，越来越多的西方大公司在市场广泛开展业务活动。不过，打开中国市场并不简单。

一般而言，在中国的外国直接投资是一个在科学论文中被广泛的讨论的话题。科学文献显示，国外的投资对一家公司的国际化进程至关重要。然而，几乎没有研究报告站在企业的特殊层面上来分析这个问题。具体而言，大多的学术论文很少从管理与企业的角度来全面地讨论市场进入模式的选择的方法，而只是把重点放在一些特有的外国直接投资的理论的探讨，例如，交易成本理论、效益追求的理论以及国际生产折衷论。他们的研究重点在于辨认市场进入模式的战略的决定因素，而不是为企业进行市场进入模式决策提供一个全面的参考体系。

因此，本论文的目的在于分析跨国公司潜在的进入中国市场的模式。本论文从企业的角度出发，提供一个在企业特有的层面上进行市场进入模式决策的详细的分析与全面阐释。它对公司进行特定市场进入模式决策的原因与后果进行了全面阐述。为了更深刻地描述理论的

背景，更形象地从企业层面分析，本论文介绍生产汽车制动系统和零配件的意大利领先企业布雷博公司（**Brembo S.p.A.**）的实例。该公司被选择的原因不仅因为它是我故乡贝尔加莫的最成功的公司之一，而且因为它通过广泛的投资和多样的进入模式打开了中国市场。此外，该集团置身于汽车行业。该行业正在经历着迅猛的革命性变化，不仅因为该行业以创新、高科技及研究开发为重点，而且在管理体系和所有权的方面，中国当局原先的高度集权正在逐步转换为国外汽车生产企业拥有全部所有权的新局面，因此，外国企业投资中国市场的可能性更多。因此，这个革命性的改变引起了我的好奇。

该论文分为三个章节。第一章详细地介绍汽车行业。具体地说，首先分析全球行业形势，包括行业发展趋势、全球主要企业、在创新和技术方面的投资增加和行业未来发展的预测。其次，分析了中国汽车行业。该段落的重点是近年来突飞猛进的行业发展势头。中国汽车行业的快速发展源于过去三十年来的经济繁荣、国内生产总值的不断增长和中国新兴中产阶级的增长。如上段所述，该段落同样介绍中国主要的汽车制造商、行业的发展趋势与贸易活动、在电动与新能源领域的投资增长和未来发展趋势预测。最后，本论文详细地分析制动系统市场。该部分阐明了关于制动系统的交易与地理分布的信息和行业大型知名公司的主要活动，其中重点阐述电子与再生制动系统。这一部分使读者熟悉布雷博公司的经营环境。本章节的第二部分介绍布雷博公司。具体地说，首先介绍这一成功企业的缔造者，阿尔佩托·邦巴塞伊先生（**Alberto Bombassei**），布雷博集团目前的主席，然后介绍该公司的概要与历史。历史的部分分为三个段落。每个段落以公司的重要转折点为代表。其次，介绍了布雷博公司的企业理念与经营策略，即公司的价值理念与企业文化核心价值观，即创新、安全、设计及审美。之后，我简单地介绍了公司研究与开发的卓越中心“千米红墙科学技术院”（**Kilometro Rosso**）。其后，该论文简要地介绍布雷博尖端的产品与品牌，其中特别注重公司推出的先进的技术。最后，描绘了市场的新趋势。章节自始至终将布雷博公司定义为一家微型跨国公司，即一家在经营的方面类似于跨国公司的中小型企业。如此一来显示出了布雷博如何从与其他公司的激烈竞争中因为它卓越的管理能力脱颖而出。更具体地说，正是由于这些能力，该公司才能拥有强大的市场地位，并且跟上有影响力的国外竞争对手的步伐。

第二章讨论跨国公司从公司特定的层面上选择合适市场进入模式的方法。该章节首先列举公司打开中国市场的原因，然后阐述该论文的关键。在这一方面，一家公司通常采用一些理论模型来选择最合适的方式。从公司特定的层面角度来看，乌普萨拉模型（国际化增长战略）与Driscoll和Paliwoda研究报告在公司最后决策上起决定性作用。这两个研究成果都要

求公司对东道国的特点、行业特定与公司特定的因素进行详细的调查。对模型与环境评价进行说明之后，该论文描述了五种公司可以选择的市场进入模式，即出口、合资企业、绿地投资、并购及空地投资。该研究也详细地解释在中国最频繁选的市场进入模式。该部分不仅清楚的展示跨国公司更愿意通过整体有机结构（通常并购）还是无机的方式（出口与合资企业）在市场上出售，而且同时也展示了国外与国内汽车制造商最大的合作协定。最后，该论文阐述了布雷博在中国的投资方式和选择这样的市场进入模式的原因与关键因素。具体而言，该段落首先介绍该公司在本国家的历史与发展，然后分析公司如何在中国发展业务。该段落分为两个部分。每个段落分别阐述公司实施的业务战略。其次，描述了该公司在中国许多的生产基地。本论文简短地介绍每一座工厂的历史和布雷博对该工厂进行投资的原因。最后，从法律层面解释布雷博和其他所有国外汽车制作商被禁止在中国进行独资企业行为（WFOE）。

无论跨国企业选择什么进入模式，他们都将面临难以进入市场以及在中国难以发展的困难。打开中国市场是一个困难的过程。一旦出现问题，投资就很容易失败。在这个问题上，最后一章探讨了公司在中国投资时面临的潜在的困难与障碍。经理与市场专家都同意公司主要面临的困难是文化差距、业务计划有效执行，保护技术改造与知识产权以及与地方当局的关系。针对每一种障碍，本论文详细地解释阻碍产生的原因和可能的解决办法。具体而言，文化差距来源于宗教信仰、传统风俗知识及价值观的差异。科学研究已经证明这些差别绝对会影响合伙人之间的谈判与业务计划的制定。由于这些缘故，误解与僵局很容易产生。至于投资的有效执行，该段落再分为四个部分：中国市场的知识、最合适的合伙人的选择、人力资源培训以及相对应的人力监督。每一个因素都能很大程度上影响与合伙人建立良好关系并且进行互益合作。就知识产权的保护而论，目前的中国法律对国外投资者的核心业务并未给予充足的保护。因此，跨国公司需要采取有效措施，避免具有竞争优势的关键信息的泄露以及与地方当局关系的损害。谈到最后的话题，中国政府的不断干预与法律上对捐款、纠纷、合同的解除、合伙人的职能、所需的资源以及无形资产的估值相关条款并不健全，对公司与当地政府当局的关系影响非常大。在每个话题的最后部分都描述了布雷博采取的措施以消除或减小这些在中国做生意面临的困难所带来的负面影响。



## TABLE OF CONTENTS

前言.....	3
INTRODUCTION.....	9
<b>1. GLOBAL AUTOMOTIVE INDUSTRY, BRAKE SYSTEMS MARKET AND BREMBO</b>	
1.1 Analysis of automotive sector.....	15
1.1.1 The global automotive sector.....	15
1.1.2 The Chinese automotive sector.....	21
1.1.3 Brake systems market analysis.....	26
1.2 Brembo general overview.....	29
1.3 Brembo history.....	30
1.3.1 Early years.....	31
1.3.2 Debut into the racing world.....	31
1.3.3 Internationalization process.....	32
1.4 Products.....	33
1.5 Brembo strategy.....	34
1.5.1 Innovation.....	34
1.5.2 Safety.....	35
1.5.3 Design and aesthetic.....	36
1.6 Market tendency.....	36
1.7 Brembo as a pocket-sized multinational.....	37
1.8 Future forecasts.....	38
<b>2. BREMBO AS A MNE IN CHINA</b>	
2.1 Strategies of MNEs in the Chinese market.....	39
2.2 Entry modes.....	40
2.2.1 Export.....	43
2.2.2 EJV.....	45
2.2.3 Greenfield.....	46
2.2.4 M&A.....	47
2.2.5 Brownfield.....	49
2.3 Entry modes in China.....	50

2.4 Brembo development in China.....	52
2.4.1 Early years (1999 – 2007).....	53
2.4.2 Recent years (2007 – today).....	53
2.5 Brembo current geographical presence in China.....	55
2.6 Entry modes chosen by Brembo.....	55
2.6.1 Nanjing Brake Systems Co. Ltd. ....	57
2.6.2 Brembo China Brake System Co. Ltd. ....	58
2.6.3 Asimco Meilian Braking System Co. Ltd. (Langfang).....	59
2.6.4 Brembo Nanjing Automotive Components Co. Ltd. ....	60
2.6.5 Brembo Nanjing Foundry Co. Ltd. ....	61
2.6.6 Reasons for Brembo not choosing WFOE.....	62
<b>3. DIFFICULTIES FACED BY BREMBO AS A MNE ENTERING CHINA</b>	
3.1 Distance.....	66
3.1.1 Culture.....	67
3.1.1.1 Chinese approach to business.....	68
3.2 Development of a successful investment.....	72
3.2.1 Chinese market knowledge.....	72
3.2.2 Selection of successful Chinese partner.....	74
3.2.3 Human resources training.....	76
3.2.4 Supervision and monitoring of the Chinese partner.....	78
3.3 Protection of intellectual property.....	79
3.4 Working with Chinese government and authorities.....	82
CONCLUSIONS.....	85
BIBLIOGRAPHY.....	91
SITOGRAHY.....	101



## INTRODUCTION

Internationalization is a process in which a firm gradually increases its international involvement and commitment, acquiring, integrating and exploiting its knowledge about foreign markets and operations in order to expand its presence worldwide (Lin, 2000). Shortly, the term refers to an attitude towards foreign activities and the actual carrying out of them abroad (Johanson & Wiedersheim-Paul, 1975). In this field, foreign direct investments (FDI) play a primary role. Broadly speaking, this sort of investment can be described as the establishment of an overseas operation through an investment project, which implies that the foreign investor exerts a certain degree of influence on the management of the venture in the host country (Liu, 2009). FDIs can be set up with different methods of entrance in the target country. Scientific literature and experts have affirmed that a company has the option to choose any entry mode in a given market, since a single alternative of modality might be more suitable for a specific business strategy. In light of this, the reasons of the complexity of the choice and its closely influence in the success of the failure of a foreign investment are evident, as it affects significantly its competitive advantages, its ability to achieve control over partners, operations' costs and risks and strategic objectives (Deng, 2001). The selection of entry mode becomes even more complicated for firms operating in emerging markets, where they face higher external uncertainty and internal constraints (Lin, 2000). In spite of the numerous difficulties and challenges that an enterprise may encounter in a continuously changing economic environment, in the last decades, China represents a market in which every enterprise, both SMEs and MNEs, is aiming to enter and operate. As reported by numerous researches, a constantly increasing number of Western firms are active in the local market through a wide range of business activities.

Generally speaking, FDIs in China have been a largely discussed topic in scientific literature for its practical relevance in the internationalization process of a multinational. However, a very few studies have examined the issue from a firm-specific point of view. Specifically, academic works have payed little attention to the choice of entry modes at a managerial and firm-specific level in a comprehensive way, as they focus more on specific FDI theories (such as the transaction cost theory, efficiency-seeking theory and eclectic theory to name a few) to identify the determinants of the entrance strategy rather than providing an multi-item and all-round frame of reference on the subject that considers all the possible implications to the strategic objectives.

Therefore, the purpose of the work is to analyze the potential entry modes of MNEs in the Chinese market, providing a detailed and complete explanation at a firm-specific level of the reasons that lead a company to opt for a particular type of investment in the country and the possible consequences of the decision in the business strategy. In order to better support the illustrated theoretical background and the subsequent firm-level analysis, the case of Brembo S.p.A, Italian leader company in the production of braking systems and components for vehicles, is presented. The following enterprise was chosen not only because represents one of the most successful enterprises of my region of origins, Bergamo, but also because it is one of the few national companies that entered the Chinese market with a total range of investments and modes. Furthermore, the Group operates in an industry, the automotive one, which is undergoing a rapid and radical transformation, not only because the sector is moving towards innovation and R&D activities, but also because in China the high degree of control of domestic authorities in the governance and the ownership of ventures is switching to the full ownership of foreign carmakers and the consequent possibility for them to better access to the country. And this revolutionary change has easily attracted my interest and curiosity.

The first chapter offers a detailed presentation of the automotive industry. Specifically, the global sector is firstly analyzed, providing some data about growth trends, the worldwide key players, the increase of investments in innovation and technology, in particular in electrification, autonomous drive and new energy vehicles, and sectorial future forecasts. Secondly, the Chinese automotive industry is introduced, focusing on its exponential development in the last years due economic prosperity, result of the constant GDP growth, and the increase of Chinese burgeoning middle class. As for the previous section, the part as well presents the main Chinese automakers, sectorial trade and trends, R&D investments in electric and new energy vehicles and future predictions. Lastly, an detailed analysis of the brake systems market is provided. The pages mainly shed light on data and trends of brakes trade and geographical development, the major companies operating in the sector and their main activities, with particular attention to the recent development of electronic and regenerative brake systems. The depicted paragraphs are necessary to let the reader familiarize with the environment in which Brembo operates. In the second part of the chapter, an accurate description of the Group is given. Specifically, after the initial presentation of the author of such a successful enterprise, Mr. Alberto Bombassei, the section firstly emphasizes the company's successful history, subdivided in three paragraphs that represent the major turning points of the success of the enterprise. Secondly, innovation, safety, design and aesthetics, namely the main values and cornerstones of Brembo's philosophy and business strategy are illustrated, with a brief explanation of Kilometro Rosso, the company's "center of excellence" of its R&D activities. Then, the paper includes a brief depiction its sophisticated products and brands, with a special focus on the advanced technologies

introduced by the company. Finally, market tendencies and forecasts are delineated. Throughout the whole introduction, Brembo has been considered as a pocket-sized multinational, a relatively small-medium enterprise that operates like a multinational. The consideration was made with the aim to demonstrate how the Italian enterprise stands out for its great managerial abilities, allowing it to distinguish itself in the saturated market and keep up the pace with competitive and powerful global MNEs.

In chapter two, after an initial list of the reasons of entry into the Chinese market, the thesis provides a general framework of the methodology of the selection of the proper entry mode by multinationals from the firm-specific point of view. In the choice of the most suitable method, a company usually takes into consideration some theoretical models. From a firm-level prospective, the Uppsala model and Driscoll & Paliwoda study can highly support a firm in their final decision. Both studies require a careful examination of host country's characteristics, industry-specific and firm-specific factors. After the illustration of the models and the context assessment, the paper describes five modalities of entrance pursuable by firms, which are export, EJV, greenfield, M&A and brownfield. The investigation includes as well a detailed explanation of the most popular modes of entry in China by MNEs. The section clearly shows not only when MNEs prefer to be present in the market through organic ways (mostly M&A) and inorganic methods (EJVs and export), but also the biggest collaborations and agreements made between foreign and domestic automakers. Lastly, the paper provides a detailed depiction of Brembo investments in China and the relative reasons and crucial factors of the chosen entry mode. In particular, the paragraphs firstly present a brief explanation of the Group's history in the country, subdivided in two parts that represent the two different business strategies adopted by the company. Secondly, the development of Chinese activities and the numerous local sites and investments of the firm are illustrated. For each operation, the work includes a historical explication and the reasons that lead the enterprise to make the investment from a strategic and firm-specific point of view. Lastly, a legal explanation of the prohibition of Brembo and any other automobile foreign investor to set up a WFOE in the country is provided.

Regardless the mode of entry selected by multinationals, the concrete entrance and the following development of their activities in the Chinese market can be a particularly difficult process, which can easily lead the investment to failure. On this subject, the last chapter discusses the major barriers perceived by firms when investing in China. Both managers and market experts agree that the main difficulties encountered are cultural distance, the effective implementation of the business plan, the protection of the intellectual property rights and the relationship with local authorities. For

each obstacle, the thesis offers a detailed explanation about reasons and possible resolutions. Specifically, cultural distance is the result of divergences in beliefs, customs, knowledge and values. Scientific literature has proved that the following discrepancies can strictly affect negotiations and the development of business between parties, creating frequent misunderstandings and deadlocks. As regards the effective development of the investment, the section is further subdivided into four different parts: knowledge of the Chinese market, the selection of the proper partner, human resources training and the supervision of the local counterpart. Each element may considerably alter the establishment of a good relationship and a profitable collaboration between the parties involved. In relation to the protection of the intellectual property rights, the current Chinese legislation does not provide a sufficient tutelage to foreign investor's business core. For this reason, the MNE has to find valid alternatives to avoid the dissemination and the leakage of its competitive advantages. With reference to the last topic, the constant intervention and the ubiquity of the local governmental institutions together with the lacking legal apparatus might highly influence contributions, disputes, termination of contracts, roles, resource requirements and valuation of intangibles between partners, sensitively declining the relationship with the domestic authorities. At the end of each issue, the paper illustrates all the actions undertaken by Brembo to limit their negative effects both on its embarked operations in the country and on the investments illustrated in the second chapter.

The paper addresses only a limited part of the FDI issue in China. The work might be the starting point to conduct an investigation concerning other potential and profitable methods of entrance in the local market. In this regard, some scholars have argued that contractual joint ventures or joint stock companies are eligible options for multinationals (Wei, Liu & Liu, 2005). However, a wider range of modes is available to MNEs. In this regard, a study of the recent tendency of companies to enter the country through WFOEs rather than EJVs or the transition of already existing JVs into this new popular form could be interesting, since in 2013 more than 80% of them opted for this sort of investment (Cavalieri, 2015). It would be also intriguing to conduct a study concerning the entry strategy in the Chinese market of other multinationals active in the automotive sector or even in other economic industries. Furthermore, the comparison between the results of this work with similar studies across multiple industries could verify whether the outcomes of this paper are industry specific or can be applied as well to other sectors. Another relevant aspect would be worth analyzing is the differences from a legal perspective among the various modes of entry and their contractual implications. As every modality of entry is subjected to specific laws, a scrupulous evaluation of the existing Chinese legislation and a comparison among the sets of rules of each investment option would provide to multinationals an additional tool to all-round support them in the investment decision, to further verify the chance of success of their operations and to negotiate agreements more

in line with their strategic goals. Finally, since the majority of literature on FDI and entry modes is originated from the perspective of MNEs, it would be interesting to analyze the methodology of entrance of SMEs, specifically comparing if the strategies carried out by MNEs are similar with the action undertaken by small and medium firms.

The limitations that can be identified in this thesis are several. Personal lack of managerial and business experience is probably the biggest obstacle for an accurate analysis of the selection of the entry mode. To address the issue, a careful reading and entrustment of sectorial reports, marketing studies and scientific literature were essential to provide a solid and precise argumentation. In addition, in spite of the large quantity of data at my disposal and the great support received by Brembo, privacy and business secrecy have prevented me from obtaining more precise information concerning the Chinese deals, sometimes making the writing of the relative paragraphs difficult to comply with the objectives of the paper. Despite of this, I finally succeeded in elaborating a logic and complete argumentation.



## **CHAPTER ONE**

### **GLOBAL AUTOMOTIVE INDUSTRY, BRAKE SYSTEMS MARKET AND BREMBO**

#### **1.1 Analysis of the automotive sector**

The automotive industry is one of the most important and dynamic international sectors. It has been one of the main drivers of economy of the 19<sup>th</sup> century and contributed to the commercial and financial development of any region where it has been established, because it has created manufacturing employment, stimulated technological improvements and positively influenced other industries, such as raw materials, logistics and consulting (Wang, Fan, Aybar & Ficici, 2013; CEDARS, CEIBS, IESE & Roland Berger, 2016). In a few words, it creates economic growth. At the same time, the automotive industry is full of difficulties due to its cyclical nature and its big competition. Specifically, the majority of its value chain is capital intensive and the industry is frequently undergone rapid and radical changes that removed from the market firms with slow reaction times (CEDARS, CEIBS, IESE & Roland Berger, 2016).

In order to have a better understanding of it, it is useful to examine carefully its trends and evolution. The study offers a detailed analysis of the global sector, the Chinese sector and the emerging and rapid growing brake system market.

##### **1.1.1 The Global automotive sector**

Analyzing the industry's statistics and facts, since 1990s vehicles production and sales have incessantly increased (except in 2009 due to the worldwide economic and financial crisis which affected all countries in the world), reaching new records in the last years. This trend is clearly shown by 2017 global sales of passengers cars, which amount to 97,2 million units, of which 73,46 million passenger cars and 23,85 of commercial vehicles (Statista, 2017). Generally speaking, all automobile segments' (from premium up to low-segment) and all vehicles' type's (passenger cars, commercial vehicles and motorcycles) sales are expanding. Projections for the 2018 and 2019 expect a further sectorial growth, which is likely to reach the unprecedented value of more the 100 million manufactured units internationally (Statista, 2017; Euler Hermes, 2017).

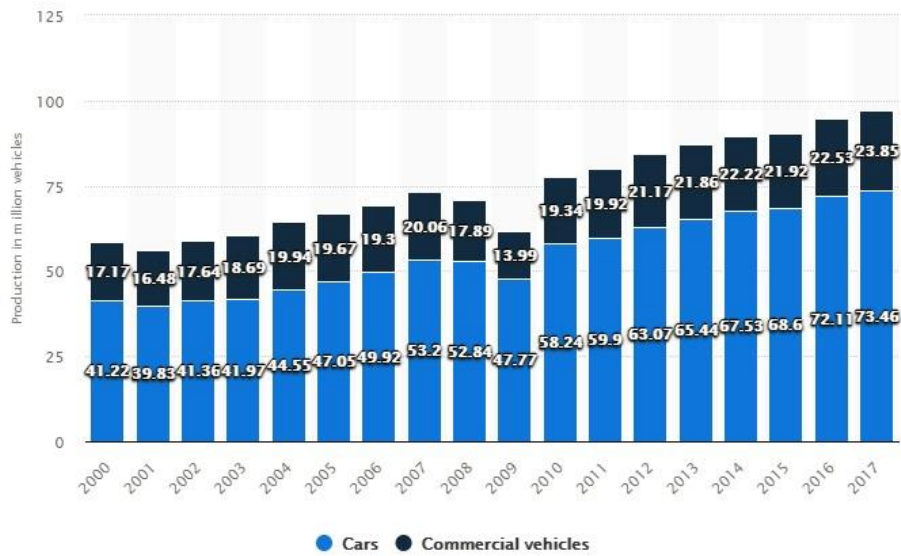


Figure 1: worldwide automobile production from 2000 to 2017 (in million vehicles) (Statista, 2017).

By data gathered by the research companies Statista and Euler Hermes, it is evident that China and the United States are the largest automobile markets worldwide in terms of production and sales. Specifically, in 2016 about 6,9 million passenger cars were sold in the US, with a grow of 0,2% in comparison to 2015 (Euler Hermes, 2017) and around four million units were produced in the country in the same year (Statista, 2017). Other key markets are Europe (especially Germany, France and Italy), with sales increased by 7% in 2016, however in 2017 the growth was almost equal to zero due to the Brexit effect, unemployment and the end of Spain’s incentive regime; Japan, which is slowing overcoming problems related to the adverse reduction of imports and exports due to the VAT increase in April 2014, and Brazil and Russia, which are still suffering from the economic crisis, linked mainly to high volatility and macroeconomic uncertainty (Euler Hermes, 2017, Standard and Poors, 2017).

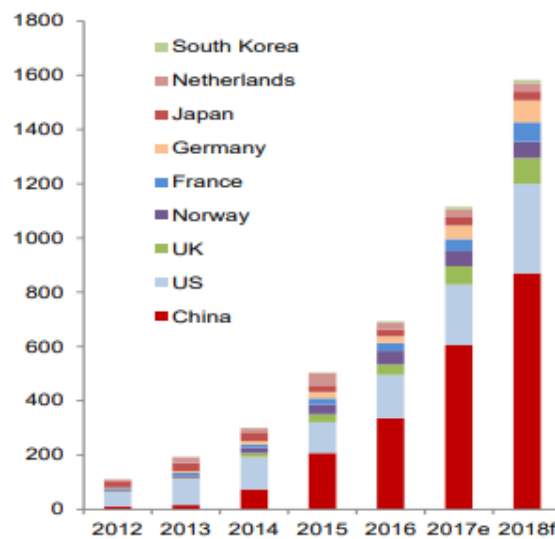


Figure 2: Vehicle New Registrations (Euler Hermes, 2017).



Since always, the United States has dominated the market: for example, in the early 20<sup>th</sup> century Ford played a significant role in the industry by introducing the assembly line car production and manufacturing its cars in mass. The abovementioned innovation completely changed the car-making process and granted to the company not only the leadership in the sector, but also the optimization of time and costs. Today, the firm is still successful and its Ford Focus is one of 2016's best-selling car worldwide (Statista, 2017). Following Ford's example, other enterprises have developed. Today, as stated by Forbes, the major automobile maker is Volkswagen, followed by Toyota and Renault-Nissan (Schmidt, 2017), whereas top automotive suppliers are Bosch, Continental, Denso and Magna (Statista, 2017).

Nowadays, the high number of global players operating in the industry has favored the so-called "Co-ompetition", namely strategic alliances with firms from converging industries (KPMG, 2017, pp. 28). It has been demonstrated that even enterprises' best efforts cannot live up with today's sectorial complexity and increased concurrence (Hecht, 2013; McKinsey & Company, 2016). Therefore, foreign automakers have no alternative but to put aside their self-interests and collaborate with one another. With this in mind, big producers started to cooperate through JVs or M&As with local companies. The reasons that push them to join forces through joint ventures are the pursuit of innovation and technology, the conformity to stricter and stricter environmental regulations<sup>1</sup>, the close observation of competitors' activities, strengths and weaknesses, the achievement of a higher pricing power and level of profitability, the globalization of their activities, the worldwide expansion of their influence and their brands and the maintenance of competitiveness (Euler Hermes, 2017; Standard and Poors, 2017). The biggest JVs include the 1983 agreement between General Motors and Toyota for the joint production of subcompact cars for the Chevrolet line in the US and the 1984 partnership of the just mentioned Japanese Group with Ford, known as New United Motor Manufacturing Inc (NUMMI) (Holusha, 1983; Staley, 2015). On the contrary, mergers and acquisitions allow firms to immediately gain more market presence, to acquire quickly new resources and achieve cost reductions by providing economic relief in the industry (Nieuwenhuis, 2015). The largest M&As of the sector are the Fiat alliance with Chrysler, Ford and General Motors merger, the Ford's acquisition of Volvo's car division, the Hyundai and Kia take-over, the Renault-Nissan-Mitsubishi Alliance (previously known as Renault-Nissan), Volkswagen's union with Rolls Royce and, above all, the merger between Daimler-Benz and Chrysler, with a deal valued US\$ 39 billion,

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<sup>1</sup> Recently, many nations worldwide have enacted a series of strict environmental regulations, mainly concerning pollution, the reduction of carbon dioxide (CO<sub>2</sub>) emissions and fuel economy to mitigate their adverse effects and safeguard citizens' health (Euler Hermes, 2017).

approximately EUR 32 billion and representing one of the largest acquisitions of the 1990s (Kang & Johansson, 2000; Nieuwenhuis, 2015; CEDARS, CEIBS, IESE & Roland Berger, 2016).

Even though the automotive industry is becoming more and more globalized, it still owns a distinctive national or regional character, owing to regulatory, geophysical, climate, cultural and socio-economic differences. Consequently, products are usually developed according to local customers' taste and needs and legislative requirements (above all environmental and safety standards), despite the apparent ubiquity of some brands and models (Staley, 2015; Nieuwenhuis, 2015). In particular, manufacturers take into consideration factors such as individual travel choices<sup>2</sup>, local vehicle preferences, suitability to transport policies and new technology to shape their products. Therefore, the same car might present different size, weight, components (engine power, automatic transmission, power steering) in different geographical areas (Nieuwenhuis, 2015). To support the above-mentioned statement, some examples are provided. In Europe the demand of vehicles with small and diesel engines is very high due to the high taxes imposed on fuel, whereas in Asia, especially in China, big cars are preferred owing to the increase of members in a family and to the showing off to the society of their wealth (Butler & Sharma, 2010). In the US instead, big autos are preferred because not only big cars are more suitable for long-distance drives between cities which are usually located very far away from each other, but also because it is the main symbol of Western capitalism and consumerism (Butler & Sharma, 2010).

A remarkable tendency of the industry in the last years is the increase of investments in innovation and high-tech. Powertrain electrification, electric mobility, autonomous driving, new energy vehicles, new mobility services are the new automakers' key challenges (Standard and Poors, 2017). Through new investments in technology and in the R&D fields, automakers expect to gain new business opportunities, to increase credit quality and market appeal, obtain further competitive advantages, to create synergies with other sectors (for instance, with large and powerful technology focused firms such as Google and Apple or large electronics makers such as Samsung) and to provide safer and value-added vehicles (Standard and Poors, 2017). From these premises, it is clear why premium companies are moving towards IT or electronic fields: they aim at a total integration between traditional mechanics and advanced and innovative technology that guarantees better design and engineering, advanced safety, location-based services and in-vehicle contents (McKinsey & Company, 2016; Standard and Poors, 2017). In this regard, the 2017 KPMG Executive Survey has

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<sup>2</sup> Factors influencing individuals' decision and behavior within the transport context include "modal choice, transport demand and choice, meanings attached to cars, public attitudes to transport policies, policy acceptability and attitudes to new transport technologies, including electric vehicles (EVs)" (Nieuwenhuis, 2015, p.29).

shown that sectorial trends until 2025 are all in view to this fusion, with OEMs<sup>3</sup> pushing for the development of battery electric vehicles (BEVs), connectivity and digitalization, fuel cell electric vehicles (FCEVs), hybrid electric vehicles (HEVs), new software or program codes and autonomous and self-driving cars.

Looking closely at the list, it is noticeable that electrified vehicles (EVs) are the most carried out projects by automakers. In spite of the high production costs, recently, electrification has been driven by widely available charging station, reduced battery and technology costs, increasing consumers' acceptance, incentives (e.g. tax breaks, parking and driving privileges, discounted electricity pricing) and national pressure to respect the environment through stricter emission regulations (KPMG, 2017; McKinsey & Company, 2016). Among the electric proposals, FCEVs seems to be the most sophisticated and successful system. Fuel Cell cars are zero emission vehicles, since the direct utilization of hydrogen makes possible the leakage of only water vapor from the exhaust pipe (Scandellari, 2015). According to experts, the technology can solve the recharging and infrastructure issues faced recently by other solutions, in particular by BEVs. As reported by the KPMG Study, its refueling process can be done rapidly at a traditional gas station, making the recharging times of 25-45 minutes of BEVs excessively long.

Another mentioned feature noteworthy is the autonomous driving. Fully autonomous vehicles (AVs) are the result of the progressive collaboration and investments of OEMs with Silicon Valley IT players in the sector (McKinsey & Company, 2016). Both parties aim at the creation of vehicles with zero-error ability, namely trustworthy autonomous car with reduced shortcomings in quality and fatal errors and with reliable safe and technical sophisticated solutions (KPMG, 2017). Some of the features provided by this sort of cars are adaptive cruise control, autonomous parking assistance, blind-spot detection and surrounding view, collision warning and avoidance, lane-departure warning, centralized computing platforms and data services (Standard and Poors, 2017). Experts presumes that the first AVs will be put into circulation only after 2020, mainly owing to still lacking safety standards (McKinsey & Company, 2016).

In light of the above, it is interesting to analyze which are the top companies in the field. Sectorial studies consider BMW as the undisputed leader in terms of electric mobility and autonomous mobility. Other automakers that have excelled are respectively Tesla and Toyota in the first area and Honda and Tesla in the second one (KPMG, 2017). Other noteworthy producers are GM and Nissan (Standard and Poors, 2017). Some partnerships for the development of new products

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<sup>3</sup> A Original Equipment Manufacturer is a company whose goods are used as components in the products of another company, which then sells the finished item to users (Investopedia, 2018).

are gradually standing out. Among them, the most promising collaborations are the agreement between ZF Friedrichshafen and French Faurecia, both leading companies in the production of cars and trucks, and the German supplier Continental and Chinese automaker start-up Nio to cooperate in the field of electric and autonomous vehicles (Standard and Poors, 2017).

Despite of the good intentions, the union of tradition and innovation seems to be quite complicated for companies. Firstly, it needs a lot of time and investments to be implemented and cannot be easily and suddenly integrated into the existing platforms, but a continuous adaptation to the sectorial context and current development programs is required. To foster the adaption and, consequently, exploit the full potential of technology that electrically controls every aspect of the vehicle and enables autonomous driving, the support of standards and the full power of swarm intelligence are fundamental. However, neither the auto nor the digital systems can succeed on their own. For this reason, auto producers have to redefine the utility of vehicles and facilitate the creation of service- and data-driven auto models through the coordination of infrastructure set-ups and the clear distinction of application areas (e.g. urban, long-distance) (KPMG, 2017). Secondly, advanced technology promotes the use of alternative and eco-friendly resources in substitution of highly polluting diesel and gasoline, such as the already mentioned electricity, but also lithium ion, methane and hydrogen (Scandellari, 2015). However, in spite of their high emissions of harmful nitrogen oxide and carbon dioxide, oil-based fuels complete replacement is impassable. They not only are widely used in long distance medium and heavy truck engines, rural areas, emerging countries, but also still have not any short-term efficient alternative (Standard and Poors, 2017). Nowadays, there is no raw material that allows automakers to meet the dioxide emissions targets in the European Union of 95 grams per kilometer and provides a better fuel economy as diesel car engines (Standard and Poors, 2017). Lastly, the majority of consumers have not embraced the idea of electric or alternative resources vehicles yet because the basic requirements for these sorts of vehicles are not meet yet. Market studies have demonstrated that the demand for innovative vehicles can be increased only through a new dense and user-friendly charging and communicative infrastructure and a better dissemination of information about results achieved in the field (KPMG, 2017). However, the effective development and installation of the infrastructure could encounter some obstacles related to the regional economic and cultural differences.

In conclusion, the global automotive industry is now at a crossroad. Automakers wish to more and more innovate their products; in spite of their commitment, it requires a large quantity of technological research and, above all, a drastic mind-shift of the final consumers, still bonded to traditional options. In this context, companies should reach a compromise between their ambitions

and the market demand, ensuring that their technological developments keep pace with the consumers mindsets (KPMG, 2017). Only if MNEs manage to find a middle ground and choose an optimal mix between production cuts and discounting necessary to align demand, supply and inventory levels, they can stay at the top of this cyclical and hypercompetitive market and, consequently, the industry will remain a key sector of the global economy (Standard and Poors, 2017).

Looking at the forecasted future market scenario, global vehicle sales will continue to grow, even though at a slower pace, approximately at 2% annually (McKinsey & Company, 2016). On the subject, the McKinsey & Company study ascribes the reduction of the sales rate to major changes in mobility behavior, with a consumers' tendency to connectivity, in particular for personal activities like media and leisure services, sharing of vehicles and on-demand mobility solutions, enabling consumers to use the quickest solution for any destination and purpose. In this regard, e-hailing services, namely the process of ordering a car, taxi or any other mode of transport through a computer or a mobile device (Word finder, 2018), will have an exponential increase to the detriment of private vehicles. In addition to the already existing Didi (滴滴出行), Uber and Zipcar, other new service providers will appear on the market. Moreover, the development of vehicles in compliance with domestic demand will not be on a national or regional basis anymore, but rather on a city level, in order to better adapt cars to local consumers' preferences and needs, policy and regulations. On the issue, the work expects that in big cities shared mobility will increase due to frequent traffic jams, lack of parking and congestion fees, whereas in rural areas private cars will still be the preferred means of transport. Lastly, it estimates that in 2030, from 10 to 50% of cars will be fueled by electricity, 50% of sold passenger vehicles will be autonomous and 15% fully autonomous (McKinsey & Company, 2016). On the contrary, the KPMG report focuses more on the creation of a digital platform by 2025 to manage directly all the relationships between automakers and consumers and to offer a complete range of services. One of the most awaited future services is the single sign-on on the platform of customers with a personal ID, enabling companies to relate directly with customers and meet all their specific requirements. Furthermore, the collaboration with IT companies will boost the production of sophisticated and high-technological vehicles, with a new operating system based on data rather than mechanics (KPMG, 2017).

### **1.1.2 The Chinese automotive sector**

As previously mentioned, in the last years, China has definitely become the world's biggest automobile market in terms of the number of vehicles. To provide some data about the sector's impressive figures, in 2009 China produced more than 13 million vehicles, which represents the 18% of the total world production, surpassing the US and Japan (Wang, Fan, Aybar & Ficici, 2013). Two

years later, in 2015, the production almost doubled, reaching 24,5 million units (CEDARS, CEIBS, IESE & Roland Berger, 2016). In 2017, manufactured autos amounted to 29 million, representing one-third of the global vehicle sales (CAAM, 2018; Standard and Poors, 2017). Furthermore, the National Bureau of Statistics has reported that in 2010 just over 70 million vehicles were registered in the country (Staley, 2015). In short, both domestic and foreign demand for cars has significantly increased.

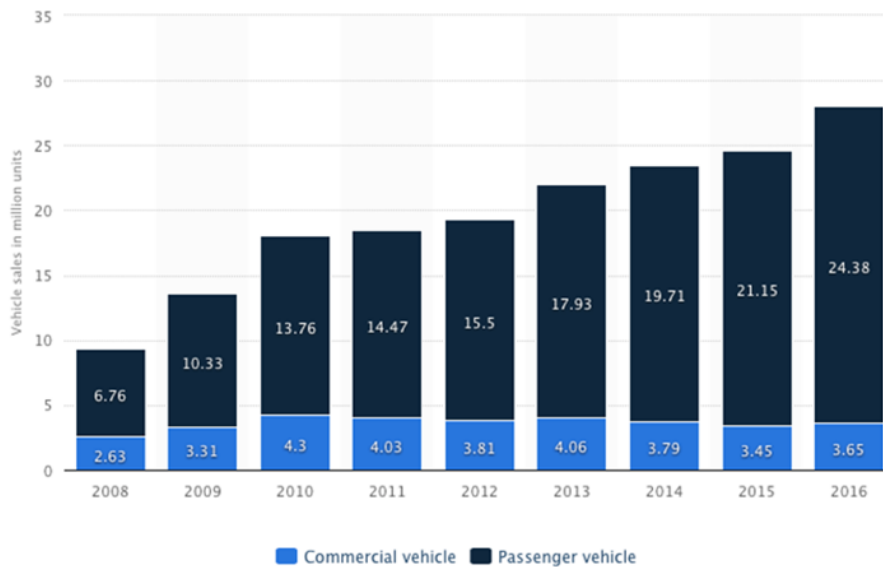


Figure 3: Chinese vehicle sales 2008 – 2016 (Statista, 2017)

However, after almost fifteen years of exponential growth, the domestic market seems to have entered a maturity phase of development. In line with GDP stable pace<sup>4</sup>, since the end of 2016 the growth is noticeably slower, especially in the passenger vehicle sector, varying from a double-digit value to a stable rate of 3%, although the number of vehicles produced increased by almost 900.000 units in 2017 (Perkowski, 2018). The slowdown is mainly due to the intensification of competitive pressure, industry overcapacity and more regulations (Standard and Poors, 2017).

According to market researchers, the main reasons of Chinese unparalleled development are the growth of GDP experienced by the country in the last thirty years and its large population composed of an increasing burgeoning middle class (CEDARS, CEIBS, IESE & Roland Berger, 2016). As far as economy is concerned, high speed and high long-term growth in an uneven short-term sales performance are the driving forces of the recent national enlarged economic prosperity: in a relatively short period of time, the industry has flourishing developed and succeeded in reaching the automotive industries of the most developed countries, even though it is still not as mature and

<sup>4</sup> The World Bank reports that after the double-digit growth of the previous years, the growth is stable at 6% since 2016. The GDP amounts to 6,511% in 2017 and in 2018 it is forecasted to reach 6,277% (World Bank, 2018).

competitive as the European or the North American ones due to its significant lack of after-sales services, technology and good reputation of Chinese brands (CEDARS, CEIBS, IESE & Roland Berger, 2016). In addition, recently, in line with global trends, a Chinese consumers' increase of purchasing decisions (with a higher number of clients visiting dealers, doing shopping online or a combinations of the two) and demand (in particular for sophisticated products), a greater interest in a wider range of vehicles (with an inclination to buy electric, hybrid and self-driven cars) and a significant growth in car sharing and renting can be observed (CEDARS, CEIBS, IESE & Roland Berger, 2016; Standard and Poors, 2017). The depicted evolution is the result of the recent increment in the accessibility to information and communication technologies in the country, which have contributed to Chinese economic, cultural, social and wealthy changes.

According to an analysis on the finished vehicles industry carried out by CEDARS, nowadays there are seventy registered automobile producers in China, which are active in every province of the country. Among the operating manufacturers, JVs among large Chinese companies and MNEs, state-owned Chinese societies and privately owned enterprises are the prevailing businesses in China. If we analyze each category, EJVs are mainly located in the North-west area. The first collaboration established in the country is the partnership of the Chinese institution with American Motors Corporation (AMC), a no longer existing US auto assembler, for the production and sale the Cherokee Jeep in China (Mears & Wang, 2016). The settlement marked the opening of the industry to foreign firms. In the following years, Volkswagen reached a similar agreement with domestic authorities for the manufacture of its Santana sedan in Shanghai (Mears & Wang, 2016). In relation to state-owned enterprises, Shanghai Automotive Industry Corporation (SAIC, 上汽集团), First Automobile Works (FAW, 中国第一汽车), Dongfeng Motor Corporation (DFM, 东风汽车) and Beijing Automotive Industry Corporation (BAIC, 北汽集团) are the biggest group companies, which account for over 50% of domestic market share. Their main goal is the development of high- and medium-end in the national market, which still focuses on the low-segment (CEDARS, CEIBS, IESE & Roland Berger, 2016). Other enterprises are Guangzhou Automobile Group (GAC, 广汽集团). On the contrary, in the private industry, BYD Auto (比亚迪汽车), Changan (中国长安), Chery (奇瑞汽车), Geely (吉利汽车), Great Wall Motor (长城汽车), JAC (江淮汽车) (Lin, 2017; Brembo, 2018). In the nonpublic field, Chery and Geely alone represent 30% of the domestic market shares (Shi, 2005). Considering both public and private companies, the combined total sales of these ten entities amount to 3.06 million units in the first quarter of 2017, accounting for almost 82% of the total sales of domestic vehicles (Lin, 2017).

If we closely look at the Chinese automotive trade, Chinese export mainly involves auto components and Chinese brands' vehicles. Analyzing the auto parts market, the research organization Export.gov estimates that the market value amounts to RMB 150 billion in 2016, with a 30% growth every year (Export.gov, 2017). On the other hand, the export of Chinese brands is rapidly rising: in 2017, 891 thousands units have been manufactured (CAAM, 2018). The country mainly exports to Asia (excluding the Middle East area), in particular to the Pacific area, with a 28% shares of the total vehicles sold, and South America, with a 26% share (CEDARS, CEIBS, IESE & Roland Berger, 2016). Exports to Europe and North America are increasing, however vehicles have to meet a minimum standards of safety and quality, such as requirements of the Euro NCAP<sup>5</sup> in Europe, otherwise they cannot be sold in the Western markets. The most exported brands are the already mentioned Geely and Great Wall for the passenger vehicle segment, Sinotruk (CNHTC, 中国重汽) in the truck segment and Yutong (宇通) in the bus segment (CEDARS, CEIBS, IESE & Roland Berger, 2016).

Analyzing the other component of the trade balance, China imports enormous quantity of vehicles from abroad, in particular from Germany, USA, Japan, to satisfy the domestic market demand, as Chinese consumers consider cars coming from these countries extremely performing and sophisticated. In this context of the paper, it is noteworthy that Italy is another key importer for China: in 2016 it exported vehicles worth of 1.1292 billion dollars to the Asian country, corresponding to the 6,77% of the total share of Italian export to China (ICE, 2017).

It is also fundamental to underline the fact that nowadays more and more international automakers started to focus their Research & Development investments in China. Recently companies not only are moving their research centers in the country, but are also implementing a series of operations to accelerate the product development and at the same time to adapt their products to the local demand (Yan, 2017). A perfect example that clearly shows the abovementioned situation is the BMW localization of its R&D center in Shenyang, the capital city of Liaoning. According to Johann Wieland, president and CEO of BMW Brilliance Automotive Ltd.<sup>6</sup>, the new facility will actively contribute to innovation and will boost the corporate Group's sales in China.

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<sup>5</sup> The European New Car Assessment Program has created a five-star safety rating system to compare vehicles differences and to help customers and businesses to identify the safest choice for their needs (Euro NCAP, 2018). Euro NCAP conducts a series of tests, valuing standards equipment and considering possible accident scenarios. The higher number of stars a car obtains, the more safety requirements are met.

<sup>6</sup> BWM Brilliance Automotive, also known as 华晨宝马 in Chinese, is the name of the joint venture between the BMW Group and Brilliance China Automotive Holdings Ltd. Founded in May 2003, its business operations aims to increase the purchasing of BMW's Group cars (BWM and Mini) in China.



Thanks to the increase of R&D activities in China, recently electric and new energy vehicles have become a thriving market in the country. As far as the EVs are concerned, according to the China Association of Automobile Manufacturers (CAAM), in 2017 Chinese automobile companies sold 794 thousand units, recording an astonishing increase of 53,8% compared to 2016. A great leap forward considering that in the United States, the world's second largest auto market, only 200.000 cars were sold (Perkowski, 2018). And this trend is likely to continue in the next years. On this subject, Standard and Poors affirms that electrified cars could expand to the 35% of sales in 2026 in the country, mainly owing to the new carbon scheme that is going to be introduced in 2019 (Standard and Poors, 2017). Furthermore, in September 2017 the Ministry of Industry and Information Technology (MIIT) announced two new sets of rules that will take effect in 2019, namely the Temporary Management Regulation for Corporate Average Fuel Consumption (CAFC, 中国乘用车企业平均燃料消耗量核算办法) and the New Energy Vehicle Credits Program (新能源汽车积分并行管理办法), with the goal to increase the incentives to car companies that invest in the field of NEVs and EVs (Perkowski, 2018). As reported by Forbes, "Currently, China's central government provides subsidies from RMB 20,000 to 44,000 (EUR 2580 to EUR 5680) per vehicle, depending upon range, with most local governments adding 15-50% to that amount. For an EV with a range of 250 kilometers or greater, government subsidies can amount to RMB 66,000, or EUR 8524, per vehicle" (Perkowski, 2018). In this way, automakers are further encouraged to pursue electrification and design new fuel-efficient cars.

In relation to NEVs, in 2016 Chinese automakers sold 450.000 vehicles, almost reaching the 500.000 units foreseen from the 12<sup>th</sup> five-year Plan (CEDARS, CEIBS, IESE & Roland Berger, 2016). In this regard, experts affirm that, at this rate, the production will likely achieve 5 million NEVs in 2020. The boom of the industry is mainly due to the government's constant commitment to support the sectorial growth and to make domestic cars more in line with international standards. To refer an example of the incessant assistance provided by authorities, in April 2015, national institutions allocated RMB 37 billion (approximately EUR 4.788 million) to sustain domestic companies researches in the field (CEDARS, CEIBS, IESE & Roland Berger, 2016).

As a consequence of the high investment in R&D activities of global players in the market, domestic companies started as well to pay attention to the development of vehicles with an higher number of technical and qualitative elements. In particular, they created a new strategy based on the satisfaction of final client needs, in order to realize products in line with their increased requirements of performance and safety (Brembo, 2018).

Analyzing the future market trend, experts strongly believe that China will maintain its leader position, since further growth in terms of volume is forecasted. Specifically, it is foreseen that by 2023 vehicle sales will increase in volume to 33 million units, representing more than 30% of global sales (KPMG, 2017). Other studies even expect the market to reach 40%, with 43 million vehicles sold in the country. On the other hand, further market experts estimated instead a slowdown in the industry, mainly due to the high sectorial competition and a reduced domestic demand (Standard and Poors, 2017). Regardless of the actual evolution, both traditional low-end and premium manufacturers will increase their sales, with domestic automakers paying more attention to the second segment (Brembo, 2018). In relation to R&D activities, innovation will continue to be developed, but not necessarily by Chinese players. In fact, domestic automakers are expected not to be the frontrunners neither for electric and autonomous mobility nor data-based vehicles. On the contrary, foreign OEMs operating in the country are supposed to launch new projects in China to reduce vehicles' impact on the environment (KPMG, 2017).

### **1.1.3 Brake systems market analysis**

In conjunction with the worldwide development of the automotive sector, components and spare parts industry has prospered. Among its subdivisions, the brake system sector has experience a profound growth and has become one of the most competitive and flourishing branches of the automotive field. According to a report drawn up by the US market research and consulting company Grand View Research, in 2016 the market has been valued 19,471.6 million dollars and it is expected to develop at an annual growth rate of 5,5% over the period 2018 – 2025. Moreover, as another report written out by Markets and Markets points out, by 2021 the market size will be equal to 31,94 million dollars. Experts have all agreed that the reasons of this exponential increase are mainly linked to technical improvements in terms of production capabilities, product diversification and management skills.

If we consider the trade of brake systems in each geographical area, the Asia Pacific region, in particular China and India, has grown the most, with an arise of 6,7% in export. Specifically, the two countries exported brakes and parts respectively worth EUR 772 million in 2015 and EUR 117 million (CBI, 2017). The increment is primarily due to costs reductions, such as low labor and raw materials costs, a gradual increase in infrastructure and a greater interest in braking systems and luxury and premium vehicles from the increasing burgeoning middle class (CEDARS, CEIBS, IESE & Roland Berger, 2016; CBI, 2017). North America and Europe market follow, with a growth respectively of 4,7% and 2,9% (Grand View Research, 2017). For research purposes and a better understanding of the whole study, it is relevant to call attention to the Italian trade of brake systems.

If we take into consideration the Italian export, the country mainly with Western countries, which recognize more the high quality of the national products (ICE, 2016). Among the global recipients, China is only placed at the 20<sup>th</sup> place, with a value of 146.597 thousand dollars of earning, however decreased to 6,2% in the period 2011 - 2015 in comparison to the double-digit rate of the previous years (ICE, 2016). The drastic reduction is linked to a major presence in the industry of Chinese OEMs, which supply the domestic market. As for import, Italy is the third largest importer of brakes with EUR 61 million in 2016, only preceded by United Kingdom and Germany (CBI, 2017). The country primarily imports brake parts from emerging countries, in particular from China.

Many brakes producers operate on large-scale worldwide, especially in the abovementioned geographical areas and in both OEM market and AM<sup>7</sup>. Detailing analyzing the two industries, the first market presents a high concentration of companies and a rapid vertical integration process due to sectorial increased knowledge and investments. On the contrary, the after-market is a fragmented one, because it is composed of a high number of manufacturers not quoted in the stock exchange that compete with MNEs by reducing some expenses, such as human resources costs and by offering a narrower range of products (Arosio, Bianchi, Paleari, 2000).

Getting back to the main topic, the major companies operating in the field are Advanced Braking Technology Ltd., AEG AG, Akebono Brake Industry Co. Ltd., Aisin Seiki, Brembo S.p.A, EBC Brakes, Federal Mogul LLC, Knorr-Bremse AG, Mintye Berhad, Nissin Kogyo Ltd., NUCAP, Pacifica Group Pty. Ltd., Robert Bosch GmbH, Scandinavian Brake System A/S, TBK Co. Ltd. and ZF Friedrichshafen AG (Global Market Insights, 2016; Grand View Research, 2017; Markets and Markets 2017). As a consequence of the high number of enterprises active in the sector, competition is particularly strong: firms are usually under a huge pressure because their profitability is reduced to minimum, since automakers try to ease transfer cost by putting these expenses onto their shoulders (CEDARS, CEIBS, IESE & Roland Berger, 2016).

A brake system manufacturer normally produces both disc and drum brakes. Disc brake systems usually have a rotor and a caliper with brake pads, similar to those used on a bicycle; whereas drum brakes have metal drums bolted to the wheels and are mounted on a fixed braking plate (Gilles, 2005). Further analyzing the differences between the two sort of brakes, it is essential to stress that disc brake market is wider than the drum one in order to provide a significant reduction in stopping distance as compared to drum brakes (Markets and Markets, 2017) and a safer and enhanced riding

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<sup>7</sup> The After-market is the secondary market of the automotive industry. It focuses on the value chain segments that come after vehicle production and sales. It includes retailing and distribution of spare parts and services, such as repair and vehicle diagnosis, remanufacturing and production of spare parts, chemicals, tools, equipment and accessories (Finkbeiner, 2016, p.7)

experience through a shorter and more controlled braking distance on rough terrains or slippery roads, higher less brakes' cooling time, better thermal conductivity, lower noise, longer brakes' durability and lower wear rate (Global Market Insights, 2016).

Moreover, in line with the last tendencies of the automotive industry, all companies recently are largely investing in R&D activities and safety, trying to develop eco-friendly, reliable and robust braking systems. On the subject, a significant increase of investments in the electronic field can be observed. In this regard, firms have tested on racing cars and introduced on the premium market a series of electronic systems, namely ABS, EBD, ESC and TCS, which make brakes more secure and provide better control in various situations. Specifically, the Anti-lock Braking System (ABS) prevents wheels to lock or suddenly stop moving when unexpected or hard braking is applied in an emergency; in this way, stopping distances in an emergency is safety reduced (Carsome, 2017; Volkswagen, 2018). The Electronic Brake Force Distribution (EBD) shifts forward the car's center of gravity when braking, creating a reduction in grip which can cause the rear wheels to lock and preventing the rear end from swerving (Volkswagen, 2018). The Electronic Stability Control (ESC), also known as ESP (Electronic Stability Program), VSC (Vehicle Stability Control), VSA (Vehicle Stability Assist) or DSC (Dynamic Stability Control), works when the vehicle goes sideways: through sensors in the vehicle that accounts for ABS, it steers the throttle by stopping the potential skid, cutting power and applying the necessary brakes to counteract the slide (Carsome, 2017). Lastly, Traction Control System (TCS) stops wheels from slipping during acceleration and reduces engine output if a spin occurs, especially in adverse weather conditions. In fact, in case of rain or snow, it provides throttle application, consequently guaranteeing the balance between throttle and traction and a safer drive (Carsome, 2017; Volkswagen, 2018).

In addition to the depicted electronic systems, stricter regulations enacted by national governments play an important role to ensure higher brakes and vehicles safety. Among the numerous laws established, the most significant efforts are the EU Pedestrian Protection Regulation, which requires producers to provide vehicles with Brake Assist Systems, and the European General Safety Regulation, which requires the equipment of ABS to trucks and buses (CBI, 2017). In light of this detailed explanation, it is clear why companies' commitment in the field is so high. A substantial increased-in-safety-and-performance electro-mechanical brake represents the future of the entire sector, as it can provide a better and safer drive not only to racing and high-end cars, but also to any

vehicle in service. Looking at some data, in 2016 the increment of investment amounts to 5,9% (Grand View Research, 2017). And for the following years, the value is estimated to further grow.



Figure 4: worldwide automotive brake system market, by technology, 2014 – 2025 (Grand View Research, 2017)

In addition to electronics, electricity holds a growing role in the industry. According to market experts, the most innovative technology of the field is the regenerative braking system (RBS) (CBI, 2017). It is new type of braking system that can recollect the majority of the car's kinetic energy wasted during braking by the rub of brake pads against the wheels and convert it into electrical or mechanical energy, increasing the efficiency and performance of the vehicle, reducing brake and engine wear and saving energy, which is stored in an auxiliary battery and used at a later stage (Gupta, Kumar, Deb & Shayan, 2014). The accumulated energy is generally re-used in flywheels, in accelerations or decelerations, or by hybrid and electric cars in their battery (Gupta, Kumar, Deb & Shayan, 2014).

Examining the sector forecasts, brake system market predictions indicate that in the next eight years there will be an upsurge of production and sales due to the implementation of more advanced systems, which will reduce the number of car accidents and road deaths. Innovation and R&D activities will be the driving factors of the industry: in the next coming years, the sophisticated electronic technologies will be fully integrated with new safety techniques, which will regulate the over stopping distance and further improve the ability of vehicles to work in adverse weather conditions (Grand View Research, 2017).

## 1.2 Brembo general overview

“Brembo is a world leader in the design, development and production of braking systems and components for cars, motorbikes, industrial vehicles and machinery, for the OE market, after-market and racing. The Group has recently branched out into the design and production of safety systems” (Brembo.com, 2018). Through this brief definition, the company presents itself to the world. Since

its foundation, Brembo is the synonym of success: as of today, it has won over 300 world championships in different racing categories, operates in more than 16 countries with 19 plants in three continents, has 33 companies in the Corporate Group and in the last years its stock values has increased of 185% (Brembo.com, 2018). The author of such a profitable firm is Mr. Alberto Bombassei, chairman and president of Brembo S.p.A. In his long career, he has received countless awards, such as the Premio Leonardo, one of the biggest Italian awards for businessmen who stand out for promoting the “Made in Italy” and its excellences (My Brembo, 2017). Moreover, the 20<sup>th</sup> June 2017 he has been inducted into the Automotive Hall of Fame<sup>8</sup>.

To understand better this charismatic and full-of-initiative figure, it is helpful to report some declarations made by his colleagues about him. During an interview given at the induction of the Italian man into the Automotive Hall of Fame, Mr. Dan Sandberg, president and CEO of Brembo North America, describes him as follows: “He is very persistent, he sees opportunities where people don’t see them, he’s always a very optimistic person when it comes to business”. Mr. Roberto Vavassori, Business Development and Marketing senior manager of Brembo, adds about him: “He is not an engineer by education, not a designer in the practical sense, not a founder of pure technology, nevertheless he has the ability to attract people and his curiosity is bringing him to build what is today Brembo”. From this depiction, it is clear that he not only has a strong passion for cars and the automobile world, but also he is an enthusiastic looking-forward leader who puts a great deal of effort in the company and in the relationships with customers and workers. In other words, passion has been the key to Brembo’s strong growth and success (My Brembo, 2017).

At the induction ceremony, the chairman states that “The mission I have given to Brembo has been to spread the culture and integration of the disc braking system into the various automotive sectors, starting from automobile racing, motorcycles, cars, commercial and industrial vehicles”. Broadly speaking, the full integration is possible by offering high quality products and by applying worldwide the same production and management processes, technology and know-how (My Brembo, 2017). It is remarkable that the strong international outlook is however simultaneous with the respect of its origins and business values (Venturi, 2010).

### **1.3 Brembo history**

During its 57-year history, Brembo has progressively become the undisputed leader of the braking system market. In its half-century long adventure, it has gained the international reputation

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<sup>8</sup> Prestigious recognition for personalities who have distinguished themselves in the automotive industry and have given a big contribution to the sector. Since its establishment in 1939, the association has rewarded more than 800 businessmen (My Brembo, 2017).

as a winning and excellent company, not only following the success on the racing competitions, but also for carrying out several innovative researches and projects. The following chapters detailed describes the Group history, distinguishing it in three major phases: the early years, the debut into the racing world and the internationalization process.

### **1.3.1 Early years**

Founded in 1961 in Paladina, near Bergamo, not very far from Milan, the firm started as Officine Meccaniche di Sombreno, a small machine shop run by Emilio Bombassei, the father of the Group's current president, and Italo Breda, Emilio's brother-in-law (Brembo, 2011). The store mainly sold foundry materials and handled orders of vehicle's components; in that period, the firm still did not manufacture brakes (Venturi, 2010). As Officine Meccaniche, the firm gained precious experience and technical knowledge in the mechanical and metallurgical sectors, which attracted some high-level customers, such as Alfa Romeo and Pirelli; consequently, the business started to grow. In 1964, the owners realized that developing its own products with innovation and aesthetic design as added-values is far more profitable and exciting than selling imported goods or manufacturing on commission (Brembo, 2011). Based on this idea, they decided to give an industrial outline to the firm and to produce brake discs for the spare parts market (which were usually imported from the UK by Dunlop) and, shortly afterwards, other braking system components (Brembo.com, 2018, Mutinelli, 2016). Ten years later its foundation, the enterprise changed its name into Brembo, acronym of the owners' surname and Alberto and Sergio, Emilio's sons, who started to work full-time side by side with the father.

### **1.3.2 Debut into the racing world**

Throughout its existence, Brembo's motto has been "From Racing to the Road": as Mr. Bombassei himself explained, for the company, competition is an essential laboratory to transfer technology over time to customers for the best road application. The union with the racing world started after having become Moto Guzzi and Ferrari's brake systems supplier respectively in 1972 and in 1975. From that moment on, the firm received recognition in Europe, especially from many French, Spanish and German companies, and evolved into the famous leader that is today. Moreover, in the 70s, Brembo is the first firm to manufacture and sell components<sup>9</sup> on the AM, opening a huge market and creating a network of distributors across Europe (Brembo, 2011).

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<sup>9</sup> In addition to discs, Brembo started to manufacture axles, brake fluids, calipers in aluminum or cast iron, chassis, fork joints, master cylinders pads, pedals, pumps, suspensions and wheels (Brembo, 2011).

Since 1980s, the enterprise has focused not only on the development of its products and technological and innovative processes, but also fixed the goal to further expand its presence in the racing world, since the collaboration was still limited to a very few Formula 1 teams (Brembo.com, 2018; Mutinelli, 2016). In the time range of ten - fifteen years, Brembo became the supplier of almost all F1 cars, 24 Hours of Le Mans, Grand Prix motorcycle racing and endurance racing' teams (Brembo, 2011). Moreover, through the experience gained on the tracks, the firm expanded its product range: it launched the production of brake caliper in aluminum for cars and entered the industrial vehicles' market (Venturi, 2010).

### **1.3.3 Internationalization process**

1983 was a turning point in the history of the firm. As Kelsey-Hayes, an American competitor which produces braking systems, acquired more than one-third of Brembo's share capital, the Italian company started its internationalization process and its opening to global market, mainly to the North-American one (Mutinelli, 2016). After Kelsey-Hayes sold its quotes in 1993, Brembo's growth kept on rising because the enterprise concentrated its energies on its strengths, in particular on its attentive management<sup>10</sup> and technological capabilities, to become more competitive internationally (Brembo.com, 2018, Mutinelli, 2016). In 1995, Brembo entered into the Milan Stock Exchange to accelerate the international diffusion. As a result of the entrance into the stock market, the enterprise started to expand the brand globally by carrying out some M&A activities. Since 1996, it acquired Alfa Real Minas (a Brazilian society producing disc brakes and assembling flywheels), the British AP Racing Ltd. (which manufactures brake and clutch system for sport vehicles) and 70% of the Marchesini (Italian producer of magnesium wheels for race motorcycles) (Brembo, 2011). With the advent of the new century, other acquisitions were established with the Italian B.C.B.S, the Japanese B.S.E, the Norwegian Norbbit, the Argentinian Perdriel SA and the Italian Rassini to name a few, expanding its market presence and the range of its products (Simonelli, 2017). Among all the FDI, it is worth mentioning the several JVs that Brembo has set up with other foreign businesses. For instance, in 2004 it set up a Joint Venture with Chrysler to develop ceramic composite brake systems (Venturi, 2010). In 2005, KBX Motorbike Products Private Ltd., a JV with Bosch's Indian subsidiary Kalyani Brakes, has been established in order to improve the motorcycle production and enter the Indian market (Mutinelli, 2016). In the same year, the company became the main supplier of Harley-Davidson, consolidating its position in the US market (Venturi, 2010). Moreover, in the 2000s, the company established some foundries abroad through greenfield investments, such as in Dabrowa

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<sup>10</sup> In the 80s, as a consequence of the more international vision and a bigger size of the company, the management started to pay more attention to numbers and economic analysis, in particular economic sustainability and cost analysis and concentrated less on the "emotional" side of business (Brembo, 2011).



(Poland), Escobedo (Mexico), Homer (Detroit, USA), Nanjing (China), Ostrava (Czech Republic), Pune (India), Santo Antonio de Posse (Sao Paulo, Brazil), to vertically integrate its production capacity and to optimize the production cycle (Brembo.com, 2018; Mutinelli, 2016; Simonelli, 2017).

#### **1.4 Products**

At his induction ceremony into the Automotive Hall of Fame, Mr. Bombassei explained that “Today, if a car uses Brembo brakes it means that it is a special car and of course the reverse situation is also true: almost all of the special cars, those that are exciting for customers, use Brembo products”. Through this explication, it can be deduced that the company’s products are synonym of top quality and high performance, can easily move people, because the driver acts as if he is making an extraordinary experience through an out-of-ordinary car, and are geared towards social use, regardless of the vehicle’s type, because vehicles using Brembo’s brakes are accessible to a public differing in age, from young people who use scooters and motorcycles to businessmen who use premium segment cars (Brembo, 2011).

Nowadays, the range of products offered by Brembo is extremely wide. The company sells braking systems and components through seven different brands, all emblems of high quality and sophistication. The Group’s brands are AP (car brake systems and components for the AM), the already mentioned AP Racing, Breco (discs and drums in the AM), Brembo, Brembo Racing (products for car and motorbike racing), ByBre (brake systems for scooters and small and mid-power motorbikes – up to 600 cc) and Marchesini (design, production and marketing of light-alloy wheels) (Brembo, 2017).

Today, Brembo has fixed the goal to manufacture electrical brakes that weight less, can recover energy, do not pollute and free of asbestos and other harmful materials (Brembo, 2011). Some of the brands’ best-seller products, which comply with the abovementioned requirements, are full or ventilated cast iron brakes, which facilitates the brake cooling, spheroidal or aluminum cast iron caliper, suitable for racing vehicles because they are light-weighted, and complete side-wheel module composed of caliper, disc and stub axle (Arosio, Bianchi, Paleari, 2000).

Looking from the racing world’s perspective, with its 40 years’ experience on the racetracks, Brembo’s brakes and components are excellent products, which allow sport teams to reduce a race lap times by a few tenths of a second; these spared tenths can be fundamental to win a race. This time reduction is obtained by developing increased engine power and by using some sophisticated and advanced products, such as extreme brake caliper, the lightweight brake disc, the co-cast floating

brake disc, the M50 brake caliper, the PVT plus brake disc and the B-M8 brake caliper to name a few. All of them are the result of years of continuous research and dedication (Brembo, 2017).

## **1.5 Brembo strategy**

As Mr. Bombassei affirmed during the speech given at his induction into the Automotive Hall of Fame, today Brembo's challenges are "Continuously improving the vehicles' technical content, making vehicles more eco-friendly and further increasing their safety and ease of use". In this way, innovation of well-performing brakes can reduce the number of car accidents and road deaths. In other words, the company's final goal is to innovate, design and manufacture sophisticated brake systems, which are both emotionally beautiful and safe.

In order to have a deeper knowledge of the Group's strategy, it is useful to examine the three key elements of the brand, namely innovation, safety and design and aesthetics.

### **1.5.1 Innovation**

The firm is known to be the pioneer of several new and original projects, including aluminum brake calipers, carbon-ceramic brakes, residual torque reduction and the BBW system<sup>11</sup> to name a few (Arosio, Bianchi, Paleari, 2000). The abovementioned examples speak of themselves: R&D activities are the core of Brembo's success. They include continuously research on mechatronics, generated by the combination of mechanics, electronics and computer science (Cantù, 2010) and on technological innovation to reach the highest level of safety, comfort and performance. All this is possible through the integration of different processes and the optimization of the production cycle by using state-of-the-art materials and eco-friendly technology (Mutinelli, 2016).

The prime importance that the company attaches to R&D is evident by the fact that among 9042 employees, 971 (almost ten percent) of workers are engineers and product specialists, who works daily in improving brakes' characteristics and performance by studying new technologies, materials and shapes (Borsa Italiana, 2017, Brembo 2017).

Most of the abovementioned R&D activities take place at the Kilometro Rosso. Defined as "a center of excellence" by Brembo (Brembo.com, 2018), it is a Science and Technology Park located in Stezzano, a town near Bergamo, in Lombardy, and designed by Jean Nouvel. The Italian region is

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<sup>11</sup> The Brake-by-Wire technology is a revolutionary innovation because the brake application creates a modulated electrical signal, which controls the electromechanical actuators of the caliper in each wheel. F1 cars use this setup to replace the majority of the hydraulic systems, to reduce hydraulic problems and obtain more auto control (Arosio, Bianchi, Paleari, 2000). In this field, the most complete and advanced product of the company is an electro-hydraulic BBW system with an integrated solenoid valve. Through the continuous research on the sector, the Group aims at the use of this electric brake system to all future vehicles (Brembo, 2016).

recognized as one of the industrial and economic drivers of Europe, together with Baden-Württemberg, Rhône-Alpes and Catalonia (Cantù, 2010). Founded in 2003 and covering 400.000 m<sup>2</sup>, the park provides a modern and dynamic environment, hosting more than 50 enterprises (mainly from academic, entrepreneurial and scientific fields) working in different sectors and disciplines and with an highly innovative outlook, 45 laboratories, several R&D centers, offices and six conference rooms. The center promotes “knowledge, innovation and cutting edge technology” (Brembo.com, 2018) and allows partners to share experiences and methodologies thanks to enterprises’ mutual proximity and to explore in a synergetic way new frontiers of science and technology through experimentation (Brembo.com, 2018). In particular, the park focuses on mechatronics, technology transfer and R&D projects (Cantù, 2010). Until February 2018, it has already produced 1870 scientific publications, published 61 patents in 2017 and allocated EUR 80 million for financing 21 research and development projects (Kilometrorosso.com, 2018).

Since the foundation of the park, Brembo has actively contributed to the Kilometro Rosso by providing brake competences, sector studies and laboratories. The engagement of the firm in the science park is another evident proof of the importance that the company gives to innovation, technology and research. Today, Kilometro Rosso host the headquarters of Brembo S.p.A and Brembo SGL Carbon Ceramic Brakes, a Joint Venture between Brembo and SGL Group, one of the leading manufacturers of carbon-based goods, which represents one of Brembo’s most technologically advanced products (Brembo, 2011).

### **1.5.2 Safety**

Since brakes are one of the most important safety equipment in vehicles, Brembo ascends high importance to the issue (CBI, 2017). The Group ensures a secure drive through the application of technical requirements that Italian and international standard bodies issue to define in detail how to produce excellent products and align production processes with the best practices worldwide. In this way, safety, quality and respect for the environment are guaranteed. According to recent studies, braking alone could reduce the accident frequency and limit the severity. Through continuous investments in this field, Brembo is making a huge commitment by decreasing the number of accidents by nearly one-third (25%) and severity by 12% (Brembo, 2017).

Moreover, to verify product safety and efficiency, since the 70s the company has a testing department, which carries out many technical static and dynamic tests in different operating and environmental conditions in laboratories, on the road and on racetracks. Prototypes are usually subject to load, pressure and braking torque in order to identify product’s weakness and critical issue and to improve it in compliance with international safety standards (Brembo, 2017).

### **1.5.3 Design and Aesthetic**

Mr. Bombassei often describes his business as “The art of Braking”. The company has always been synonym of state-of-the-art brakes in sense of performance and reliability. About Brembo products, Mr. Luca Cordero di Montezemolo, former Chairman of Ferrari and Fiat S.p.A., at the president induction into the Automotive Hall of Fame affirms that “When we talk about breaking, people normally think it is a really important piece of safety, a piece of performance, but breaking is an appealing product”. Moreover, the firm a few years ago received a prestigious industrial design award with the following explanation: “If it were not a brake, it would be a work of art worthy of any modern art museum”. These examples highlight brake not only as a safe and high-performing product, but also as the result of the love of beauty and the importance that Brembo attaches to aesthetic look. It is remarkable how a visible mechanical equipment hidden underneath the chassis and behind a hubcap, usually ugly and not very refined, thanks to Brembo, has become an object of design, in which shapes and functions go hand-in-hand. This way of designing accurately reflects the concept of “Italianness”, namely the innate capability of Italian businesses to bring a sense of style to ordinary objects, a skill forested by centuries of being accustomed to beauty, which can be found in buildings, landscapes and traditions (Brembo, 2011).

Narrowly speaking, the company promotes the design of new forms, which are lightweight, have greater thermal stress cracking resistance and reduce pad wear. Taking into consideration materials, other than the already mentioned carbon-ceramic and aluminum discs and the ordinary cast-iron brakes, Brembo is starting to use unconventional materials, such as techno polymers and reinforced light metal alloys (Brembo, 2017).

Along with customer’s styling centers, the firm defines shape and color. Today, there are over 40 different colors and over a thousand different brakes’ shapes.

Brembo gives particular importance to painting, not only because preserve car aesthetic appearance from the sight of a rusted and oxidized disc, but also because it protects from corrosion and heat, increase disc’s scratch resistance and allows free application from drips, sagging and lumps (Venturi, 2010). Moreover, in compliance with the company’s eco-friendly requirements, low solvent or solvent-free paintings are used (Venturi, 2010).

### **1.6 Market tendency**

Brembo is one of the largest braking systems producer worldwide. The Corporate Group total sales are a visible prove of its international success. In 2016, total net consolidated revenues amount to 2,279.1 million €, surpassing the record of 2,037.2 million € of the previous year (Brembo.com,

2018). A look at the brakes main applications shows that 76,2% of 2016 total sales come from the car segment, becoming consequently Brembo's main market, followed by commercial vehicles (9,8%), motorcycles (9,0%) and racing vehicles (5,0%) (Brembo, 2017).

Analyzing the OE market and AM, in the last years, the demand in both market segment has increased. On this subject, however, it is relevant to stress that a higher number of new vehicles' registration has determined OE sales' proliferation, whereas the after-market growth is a consequence of cars' higher wear and tear (Arosio, Bianchi, Paleari, 2000).

Broadly speaking, Brembo's products are sold worldwide. The company is export-oriented and sells its brakes in more than 70 countries directly or through exclusive distributors (Mutinelli, 2016). However, in strategic markets, such as in the US or in China, it prefers to exploit local firms and distributors, which have a deeper knowledge of the market, to facilitate the entrance into the foreign country, gather more information about the context in which operates, promptly respond to market's requests and needs and receive a feedback about its decisions and actions (Brembo, 2017). In this case, Brembo usually sells brakes and components to other businesses, which commercialize them with their own brands (Arosio, Bianchi, Paleari, 2000).

### **1.7 Brembo as a pocket-sized multinational**

Brembo is a classic example of pocket-sized multinational, an Italian native term indicating a relatively small-medium enterprise, which operates like a multinational (Proz.com, 2018). Broadly speaking, this sort of firms are characterized by the following factors:

- The commercial widespread presence of the firm in the world in terms of sales and production
- A strong and competitive leadership
- A change in the corporate governance, that from family-owned evolved into a society with private equity (Mattina, 2012).

Specifically, these sort of firm success lies on its ability to innovate without following to the letter the norms of big corporations, but rather specializing in niche markets and producing creative-intensive artisan goods (Stroppa, 2016). In other words, the quality and the capability to grant customers' requirements are what count most, not the price or the dimension of the enterprise. In substance, being recognized as a pocket-sized multinational is a great honor for a company, as it demonstrated that the enterprise stands out for its great managerial abilities, allowing it to distinguish itself in the saturated market and keep up the pace with competitive and powerful global MNEs.

In compliance with this depiction, Brembo has continuously grown, even during the 2009 global economic and financial crisis, expanding its range of products and increasing its number of

customers. The delocalization of a large part of its production abroad allows the Group to further expand worldwide the “Made in Italy” and Italianness with its capacities of innovation and design (Bertelè, 2011). The high quality of its products enables the company to be competitive in highly segmented market (Stroppa, 2016). In this regard, since its foundation, the firm mainly focuses on the niche market of the premium segment, result achieved through the production of a smaller quantity of goods but with a very high degree of specialization (Brembo, 2017; Mattina, 2012). The chosen positioning completely reflects company values such as sportsmanship, safety and innovation (Brembo, 2011). The attention payed to the high-end segment is not the same payed to the middle and low market, in which the firm does not operate. Nevertheless, since the foundation of the Czech plant in 2010, the company started to be active in the mid premium segment, collaborating with automakers such as Land Rover, BMW, GM and Audi (Brembo.com, 2018).

### **1.8 Future forecasts**

According to sector-based future forecasts, in the next years, the Group will become the largest brake systems manufacturer worldwide. As Mr. Matteo Tiraboschi, executive vice president of Brembo, has stated in an interview for My Brembo, the company’s internal periodical, that the enterprise will continue to grow, since the income statement is expected to remain positive and a large number of investments in the form of new plants and strategic agreements are planned in the next coming years. The favorable trend is as well confirmed by Banknord. According to the entity’s report, the stock market is likely to expand, mainly due to high profitability of shares, which are going to attract more investors. The Group will keep on analyzing customers’ needs and market preferences to develop the best brakes possible in line with international environmental and safety standards.

Furthermore, the constant innovation and research of new sophisticated materials and the design of new brake systems based on mechatronics and electronics, together with the wish to expand its market presence worldwide and to understand better foreign countries’ scenario, will lead the firm to increase the collaboration with other key players of the automotive industry, including OEMs, suppliers and service providers, and international associations (Brembo, 2017). On the issue, Orlando reports that, starting from 2019, the company is going to invest EUR 100 million in innovation, not only in terms of research, but also in terms of processes, with, for instance, the abolishment of paper in favor of videos and touch-screens. In this way, Brembo will undertake a radical transformation in a model of industry 4.0, with a new form of digital organization based on better interconnection, traceability, cyber-security and data sharing with suppliers (Orlando, 2018).

## CHAPTER TWO

### BREMBO AS A MNE IN CHINA

With an impressive annual growth in the last 20 years, nowadays China represents a market in which every enterprise, both SMEs and MNEs, is aiming to enter and operate. According to the last reports, approximately 2000 Italian firms have invested in China in the last years, with total revenues that amount to EUR 5 milliard in 2016 and providing more than 60 thousand job opportunities (ICE, 2017). But what exactly attracts so many foreign businesses to China? And how can they enter the flourishing market in a way that allows them to maximize profits and, at the same time, minimize costs and risks and protect themselves from any change in governmental policies or dissemination of information? To answer the questions, a detailed explanation from a firm-level point of view of the strategies adopted by foreign firms to enter the country is necessary, followed by an analysis of Brembo's determinants of the entry mode choice in the Chinese market.

#### 2.1 Strategies of MNEs in the Chinese market

Since 1978, Chinese economy has developed dramatically because the gradual openness of the country borders to foreign companies. After the implementation of some economic reforms and business policies, in particular the Open Door Policy and China's admittance into the World Trade Organization in December 2001 (Wang, 2013), the socialist system is slowly changing into an open-to-capitalism structure, to which Chinese themselves usually refer as "capitalist socialism", based on a less retained national control over foreign investments, facilitated technological transfer and reduced trade barriers<sup>12</sup> if compared to the past (Teng, 2004; Simonelli, 2015). The ongoing opening to the world and the progressive economic liberalization drew the attention of foreign firms in terms of trade and investments, as the country offers numerous business opportunities, countless natural resources, cheap labor and a vast market potential (Shenkar, 1990). Consequently, imports and exports have intensified and foreign MNEs were fostered to invest in China, enhancing their competition's ability in the country and allowing them to grow in terms of sales, revenues and

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<sup>12</sup> Before the entrance into the WTO, high tariffs, import quotas and strict product standards protected the internal market, making difficult for foreign companies even to export into the country. With regard to the industry of the case study, the import tariffs for the automotive sector amounted to 70-100%, unacceptable to bear for foreign exporters. However, the admittance into the WTO made a decisive contribution to the improvement of the situation, through the reduction of tariffs to 25%, the elimination of some import quotas and fees of ownership and an easier set up of JV and M&A (Teng, 2004).

customer base (Teng, 2004). As a result of the higher number of Western firms operating in China, an unprecedented boom in FDI has been registered in the country.

The new economic framework has as well increased the welfare of the majority of the Chinese population: general increase of income, recent urbanization and new cultural tendencies inspired to Western models determine new consumption criterion, mainly based on the creation of status symbols (e.g. luxury, wine) or focused on price performance (e-commerce). In other words, Chinese are more yearning to appreciate and buy high-quality goods, services and brands to show off to the society their new acquired level of wealth (Lasserre, 2012).

For MNEs, being present in China means also the possibility to expand their market presence and sales. In this regard, numerous managers have affirmed that operating in the country allows them to understand better the emerging tendencies in the local supply and demand, adapt themselves to market peculiarities, and, consequently, provide products created precisely for the Chinese market (Dikova & Van Witteloostuijn, 2007). Companies might also sell their top products of their brands, in this way moving themselves from Western saturated markets and industries that reached overcapacity to approach countries that has an urgent need of sophisticated goods (Cox, 2006; Lasserre, 2012). In addition, the proximity to local customers enables firms not only to reduce the distance in terms of logistics and commerce, but also to continuously supervise possible changes in trade policies (Farnesina, 2016).

Firms invest in China as well to enter into possession of precious assets, resources and capabilities not available or at a higher costs in home countries, in particular cheap production processes and labor force, materials and capillary distribution networks, and to cut costs, especially onerous transportation, coordination and communication expenses, exploiting economies of scale, maximizing the efficiency of the investment (Liu, 2009).

Lastly, as key competitors might have already emerged in the country, companies need to keep up with the concurrence and enter China in order to stay competitive and not to lose their market presence (Wang, Fan, Aybar & Ficici, 2013). Because of the thriving rivalry, in the last years, some sectors, such as health care, food, retail and the previously illustrated automotive sector, have recorded an unprecedented growth, allowing foreign companies to make higher profits in China than in the rest of the world (Farnesina, 2016).

## **2.2 Entry modes**

MNEs may enter the target market by different modes of entry. Entry modes can be defined as the way a firm chooses to organize its activities in a foreign country (Gundersen, 2012). This



organization “makes possible the entry of a company’s products, technology, human skills, management or other resources into a foreign country” (Root, 1994, p. 24). For a business going abroad, the determination of the proper entry mode is of primary importance, as it significantly influences the way it operates in the host country and clients are served, but, above all, the success of the investment (Driscoll & Paliwoda, 1997). In particular, the choice affects the company’s competitive advantages<sup>13</sup>, its ability to achieve control over partners, operations’ costs and risks, strategic objectives and, naturally, its earnings (Deng, 2001). However, given the high number of attainable methods of entrance<sup>14</sup> that lead to different levels of control, risk and commitment, and the recent transformation of the business environment that affects international strategies designed to capitalize on the long-term and growth opportunities, the decision is not easy to be taken (Driscoll & Paliwoda, 1997). For this reason, the multinational needs to define a detailed entrance strategy before investing in the target market.

A MNE usually depends on some theoretical models to select the entry approach. Among the numerous alternatives offered by the scientific literature, the Uppsala model is probably the most reliable theory that identifies at a firm-specific level the steps undertaken by companies when going abroad. Basically, it considers the internationalization process as a learning-oriented procedure. According to its authors, Johanson and Wiedersheim-Paul in 1975 and Johanson and Vahlne in 1977, knowledge is the main determinant of internationalization, because the lack or difficulties in obtaining it can significantly affect the enterprise’s perceived risk and opportunities (Johanson & Vahlne, 1977). To overcome this problem, the gradual and incremental gain of local understanding and resources through incremental decision-making and constant learning about local market and operations allows the enterprise to minimize its risk by increasing its commitment in the host market (Johanson & Wiedersheim-Paul, 1975; Johanson & Vahlne, 1977; Lasserre, 2012; Wu & Zhao, 2007). According to the Swedish scholars, the decrease of perceived risks extends control of sales, the exposure to offer and demands and, lastly, operations (Johanson & Wiedersheim-Paul, 1975). The model expects four sequential stages of entrance, denominated establishment chain by the researchers: the enterprise firstly enters the target country with a very low engagement, usually through irregular export activities in neighboring countries or areas with similar business practices, then exports through independent sale representatives (agents), after that establishes sales subsidiaries

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<sup>13</sup> Competitive advantages are all the activities undertaken by an enterprise to create value (Lasserre, 2012). It usually refers to marketing, advertising, brand management, specialized logistic, R&D, design and after sales services.

<sup>14</sup> As reported by Gundersen in her study, Brouthers and Hennart counted sixteen entry modes that a firm might adopt to enter a foreign market. They agent, contract, cooperative ventures, distributors, export, equity, non-equity, equity joint venture, non-equity joint venture, franchise, level of equity ownership, license, majority joint venture, minority joint venture, management contract and wholly owned entity. In the list, alliances, brownfields, greenfields and M&A are not included (Gundersen, 2012, pp. 8).

and, lastly, starts to produce abroad (Johanson & Wiedersheim-Paul, 1975; Lasserre, 2012; Wu & Zhao, 2007). It is clear that firms adopting the following model aim at the development of their activities abroad in small steps rather than making large investments at single points in time (Johanson & Vahlne, 1977). Furthermore, each phase represents a different degree of involvement of the firm in the target market, leading to a diverse experience and gain of information (Johanson & Wiedersheim-Paul, 1975).

Different from the above-depicted model, in 1997 Driscoll and Paliwoda introduced another foreign market entry decision framework. They firstly determined three main modalities of entrance, which are export, contracts and investments. Contractual entry modes include a large number of agreements, such as franchising, licensing, management contracts, non-equity joint ventures and turnkey contracts, whereas investments comprehend acquisitions, joint ventures and start-ups (Driscoll & Paliwoda, 1997; Wu & Zhao, 2007). The work then differentiates the three identified modalities according to five dimensions, which are control, dissemination risk, resource commitment, flexibility<sup>15</sup> and ownership. As reported by the researchers, “the extent to which each of these dimensions influences the choice of entry mode will vary depending on the dimensions that firms consider important when electing an appropriate institutional arrangement and the weighting of these dimensions by individual firms” (Driscoll & Paliwoda, 1997, p.59).

For the identification of the most appropriate entrance modality and the consequent achievement of the objectives of internationalization, both theories require the multinational to conduct a detailed and all-round assessment that considers a large number of exogenous and situational factors. For managers, it is essential to evaluate the impact of these determinants on the mode selection, since every single variable affects the control, risk and commitment of the entry mode (Driscoll & Paliwoda, 1997). In particular, the MNE has to ponder the following aspects (Aulicino, 2005; Wei, Liu & Liu, 2005; Wang, 2011; Wang, Fan, Aybar & Ficici, 2013; Driscoll & Paliwoda, 1997; Lasserre, 2012; Wu & Zhao, 2007):

- Host country’s characteristics, like economic and financial environment, governmental and trade policies, bureaucracy, legal requirements, financial and entry barriers, percentage of acquirable control of the investment, country risks and degree of industrialization and development.

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<sup>15</sup> Flexibility can be defined as the capability of a company to change entry modes quickly at the least cost in correspondence to the changing economical, business and financial context (Driscoll & Paliwoda, 1997).

- Industry-specific factors, which include firm's sectorial knowledge, required asset intensity, possible costs and risks, general market trends, demand, customer necessities and, tastes and preferences, existing competitors, business environment and government intervention.
- Firm-specific factors, relative to the company's size, its international experience to enter a foreign market, its business core and competitive advantages and the possibility to protect them, resources and financial commitment, enterprise's production cycle, corporative policies and strategies and product differentiation.

Numerous studies have demonstrated that the attentive investigation of the abovementioned elements has considerably helped firms in the selection of the appropriate investment. In this way, they managed to expand themselves into foreign markets, enhancing their international competitiveness and, at the same time, reducing potential entry barriers, costs, risks and any possible problem related to the investment (Cheng, 2006). In other words, the careful evaluation of all the elements lead foreign companies to a successful process of internationalization.

The enterprise can also conduct further analysis based on other specific FDI theories, which include the transaction cost theory, efficiency-seeking theory, eclectic theory and Dunning's OLI framework to name a few. However, the paper will not linger on them, as these assumptions are not carried on from a firm-specific point of view, but rather at a host country and industry level.

After the careful study of the main influencing factors, managers are ready to take their final decision and create the proper entry strategy. In light of this exhaustive presentation of the entrance approach, it is necessary to report the characteristics of the attainable entry modes. Among the sixteen possible alternatives achievable by executives, the work investigates only the modes of entry effectively adopted by Brembo, namely export, EJV, M&A, greenfield and brownfield.

### **2.2.1. Export**

Export<sup>16</sup> is the simplest form of entry mode. It is usually the first modality selected by firms new to the internationalization process, due to their lack of experience in the host market and the less dependency to location-bound (Ma, Wang & Li, 2017). In fact, the low initial investment and resources commitment that characterize the following entry mode allows the company to reverse easily the investment in case of an unprofitable operation, as assets can be redeployed in other investments without costs (Lasserre, 2012). In this regard, many researchers, including Bilkey, Tesar,

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<sup>16</sup> Defined as the production of goods in an existing plant in the home country or in a country that is not the target one (Raff, Ryan & Stähler, 2009), export can be either direct or indirect. Through indirect export, an intermediary sells the products to customers in the foreign market, whereas direct export is the direct sales to customers without intermediaries (Gundersen, 2012). Furthermore, export can have different levels of commitment: occasional transaction, long-terms contracts and foreign agent and distributor relationship (Lasserre, 2012).

Johanson, Vahlne, Cavusgil, Kedia and Chokar to name a few, have demonstrated that companies commonly operate under the philosophy of increased commitment. In compliance with the theoretical framework of the Uppsala model, their studies clearly show that the firm's engagement intensifies in relation with its international activities: the more a business learns about the foreign market, the more uncertainty will be reduced. In other words, the more experiential knowledge the firm gains, the more costs are perceived low and earnings increase (Johanson & Wiedersheim-Paul, 1975; Calof & Beamish, 1995). Given the foregoing arguments, it is clear that, in the early stages, MNEs choose export to present their activities and brands to local customers at the least commitment, even though they perceive costs as higher and revenues as lower than firms that are active in the target market for much longer (Calof & Beamish, 1995). In this way, the constant contact with foreign clients and the intensification of their activities abroad determines a greater comprehension of the foreign operating environment and its industry structures, the creation of a marketing strategy more suitable to local customer demand and the gradual minimization of overseas investment risks (Liu, 2009).

In the face of initial struggle, export might be preferred also because it allows immediate market penetration and entry costs and risks are definitely lower than other FDI modes, especially in comparison to M&As and greenfields, which require a high financial commitment (Teng, 2004). Furthermore, export can be chosen by companies active in a saturated market or that exceeded their productive capacity to alleviate their overcapacity and try to reduce costs achieving economy of scales<sup>17</sup> (Lasserre, 2012). Despite this, trade barriers, especially tariffs and taxes, high production, transport and distribution costs, low responsiveness to customer needs, low market knowledge, dissatisfaction with local agents, high intermediary costs, sensation of little exploitation of the market and low control on commercialization and unexpected changes in governmental policy might deter foreign firms to adopt export as entry mode, preferring, as an alternative, the establishment of an FDI in the form of a subsidiary in the target market (Teng, 2004; Calof & Beamish, 1995; Lasserre, 2012; Liu, 2009).

In substance, the consideration made by Driscoll & Paliwoda in their work are proved, since control, dissemination risk, commitment and ownership of the company are low, whereas flexibility is high (Driscoll & Paliwoda, 1997).

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<sup>17</sup> Economy of scale is a strategy adopted by firms to reduce their costs. It expects that the higher the volume production, the lower production, marketing and distribution expenses and, consequently, the greater maximization of the investment (Lasserre, 2012).

### 2.2.2 EJV

A company initial lack of knowledge regarding the market and its inability to build on competencies to operate in it forces the MNE to obtain them externally (Mutinelli & Piscitello, 1998). From this perspective, joint ventures<sup>18</sup> (JVs) are the perfect solution. In particular, through equity joint ventures<sup>19</sup> (EJVs), the foreign partner can take part in small, tentative investments in the target market, reducing uncertainty regarding the entrance thanks to the experience of the local enterprise, but, at the same time, gain crucial information about market needs and preferences, business practices, the institutional environment, potential restrictive regulations (Mutinelli & Piscitello, 1998; ICE, 2011; Liu, 2009). Furthermore, the foreign investor can create some direct contacts with local suppliers, banks, institutional officials and customers, without relying on intermediaries as in the case of export.

Broadly speaking, EJVs grant to multinationals a direct participation on the market and a certain level of control over the activities of the venture, access to new knowledge and complementary resources or skills, enhance global mobility through technology transfer and the share of information, costs and risks with partners, creating synergy<sup>20</sup>, factor essential for the success of the investment, as the absence of synergy entails the lack of the basis for the collaboration and diminishes the bargaining power of both partners (Aulicino, 2005; Hu & Chen, 1996; Lin, 2000; Luo, 1998; Ma, Wang & Li, 2017; Staley, 2015). In other words, EJVs is a tool that reduces uncertainty of entering a foreign market through sharing and risk and cost diversification and allocation among parties involved; simultaneously the investment creates exposure to a partner's firm specific assets (Staley, 2015).

Empirical studies have proved that through an EJV foreign companies can adapt to host-country market better than the other entry modes, mainly due to the possibility to exploit the economic, environmental and market knowledge and distribution network of the local partner. Hence, the MNE can easily get his hands on labor force, natural resources, properties and land use rights and, at the same time, overcome all the obstacles and risks related with the entrance into an unfamiliar market, especially the political and institutional ones (ICE, 2011; Calof & Beamish, 1995; Mutinelli & Piscitello, 1998; Staley, 2015). In other words, the choice of the EJV is driven by specific

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<sup>18</sup> The Joint Venture is an agreement between two or more enterprises for the realization of a common business purpose through the integration of complementary resources. The parties involved have to draft an agreement, which contains all the rules of the JV association (Cavalieri, 2008).

<sup>19</sup> EJVs can be defined as the collaboration between two or more firms to establish a new and separate legal subject through equity investment (Gundersen, 2012; Cavalieri, 2008). They are based on shared ownership and decision-makings, namely the unanimity of all decisions taken, independently from the percentage of share (Teng, 2004; Cavalieri, 2008). In relation to venture control, a partner can have the majority, the minority or half of the shares (50-50 EJVs).

<sup>20</sup> Synergy is defined as the combination that creates more value than the parties could create on their own (Zámborský, 2016).

geographical or commodity-related characteristics of the operation in which the offer of its specific competitive advantage by the counterpart plays a key role, because it is not otherwise available for the foreign partner by himself (Cavalieri, 2015; Wang, 2011). In substance, the greater the market risk and the heterogeneity in the target market, the foreign firm is more probable to opt for EJV (Lin, 2000).

However, it has also been confirmed by scholars that the collaboration might as well lead to lack of control, creation of potential competitors in case of dissemination or leakage of know-how and manufacturing capabilities and the consequent lack of trust, misunderstandings and managerial conflicts due to cultural and business differences or technical gap, higher costs to adapt to the local market and to supervise the partner and a long period of negotiation (Teng, 2004; Cheng, 2006; Cavalieri 2015). In other words, the disparity between outcome and expectations can lead to dissatisfaction and failure, causing instability in the venture (Staley, 2015). In this case, the foreign firm may try its best to overcome these obstacles or start to reevaluate its business plan in order not to fail in the host country. In light of this, it may opt for an acquisition or for a greenfield operation, in which the control degree is higher.

To sum up, Driscoll & Paliwoda determinants are respected, as all the five values, namely control, dissemination risk, commitment, flexibility and ownership are medium-high (Driscoll & Paliwoda, 1997).

### **2.2.3 Greenfield**

Another option that a company may take into consideration to enter the foreign country is greenfield<sup>21</sup>. It is usually the option chosen by enterprises that already have business contacts in China and that aim at a direct control of the investment (Hayali, 2014). In fact, this mode of entry guarantees to a firm the possibility to choose freely the site that meets its needs the best and accustom itself to the new business environment and market at its own pace, avoiding integration problems originated from cultural distance between home and host market, such as different managerial and organizational styles (Cheng, 2006; Lasserre, 2012).

Besides, a firm opts for a greenfield operation the greater its technological skills, related to the development of technology and the capability to innovate and invest in R&D activities. In fact, if an enterprise has technological and competitive advantages that steadily wishes to retain control over,

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<sup>21</sup> A greenfield can be defined as the establishment of a new affiliate from scratch in the host country to produce goods locally by a firm has its own headquarters in another country (Raff, Ryan & Stähler, 2009; Cheng, 2006). Establishing from scratch means investing money and resources to build from zero new administrative, manufacturing and marketing facilities (Gundersen, 2012; Lasserre, 2012).

it may prefer a greenfield to a M&A investment (Kang & Johansson, 2000).

Another reason to choose this mode of entry is closely correlated to transaction costs, namely all expenses incurred when buying or selling a good or a service, including labor costs and broker's commissions and spreads (Investopedia, 2018). As researchers have demonstrated, greenfield can drastically reduce these costs by limiting the exposure to the host equity market. Consequently, a firm not only can avoid all the typical problems of JVs related to opportunism and asymmetrical information, replacing them with efficiency or bypassing high transaction costs of an acquisition caused by firm's lack of resources and low bargaining power (Cheng, 2006), but also can become more efficient because it has higher net returns and more capital available to invest (Investopedia, 2018).

According to Raff, Ryan and Stähler, if the greenfield investment is more profitable than export, the price that a MNE offers to acquire the local company is lower; in this case, the foreign business may prefer an acquisition rather than greenfield investment. On the contrary, if the greenfield option is less profitable than export, firms do not participate in a JV, but preferably choose an acquisition or export if trade cost is large enough (Raff, Ryan & Stähler, 2009). Other two factors that may deter a firm to opt for a greenfield investment is the high risk exposure and time. As far as risk is concerned, the engagement to establish this form of operation is particularly high, as a large number of resources and capitals are invested in the setting up. Since the higher the commitment, the higher the risk, in case of an unprofitable operation, it would be very difficult for the company to reverse the investment, as assets cannot be redeployed to alternative uses without costs (Lasserre, 2012). In terms of time, the obtaining of construction authorizations and the following building of sites from scratch requires a large amount of time. If a company aims to enter immediately the market to keep up with the concurrence, then it is likely to opt for a quicker entry mode, such as EJVs or M&As, since they provide straight away assets and capitals (Lasserre, 2012).

In conclusion, taking into consideration Driscoll & Paliwoda's work, the analysis has once again proven to be in compliance with the theoretical model, because that in a greenfield operation the control, commitment and ownership of the firm are high, whereas flexibility and dissemination risk are low (Driscoll & Paliwoda, 1997).

#### **2.2.4 M&A**

In the recent years, mergers and acquisitions<sup>22</sup> have become one of the most popular form of

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<sup>22</sup> A M&A is a direct investment to purchase stocks of an existing company or its production capacity in an amount sufficient to give control, which can be full or majority (Gundersen, 2012; Raff, Ryan & Stähler, 2009; Cheng, 2006; Cavaleri, 2008). It differs from the takeover, in which the control is assigned to another person (Cavaleri, 2008).

internationalization chosen by investing firms. On this modality, Some scholars have conducted some analyses at firm-level to understand what brings an enterprise to choose the M&A. As pointed out by Kang and Johansson in their study, the main driver of the selection of an acquisition is the need to acquire quickly existing complementary resources and capabilities, difficult to get on its own. Specifically, through this form of investment, multinationals aim to obtain precious intangible assets, which include technology, production knowledge, superior marketing and management capabilities, human resources and famous brands, the whole with the goal to enhance the firm-specific competitive advantage without adding further capacity to the market and avoiding any start-up problem (Kang & Johansson, 2000; Lasserre, 2012). For instance, companies which are unable to develop by themselves technology owing to time or resource limits can choose an M&A operation for acquiring the yearned technological resources. Specifically, this sort of investment is preferred the greater the organizational and managerial skills, because they are bound to the ability of the firm to absorb and use its existing know-how (Kang & Johansson, 2000). As the international experience of an enterprise is generally linked to the two abovementioned skills, firms with more international experience are likely to choose acquisitions rather than other FDI modes. On the issue, scientific literature has demonstrated that if a firm has already contacts with businesses in the host country, it would definitely choose a M&A to a greenfield operation, because even though investments in a new plant and equipment might indeed enhance the enterprise' capacities and competitiveness in the target market, it might as well drastically lower prices and profits, damaging the firm's existing partners and affiliates. In other words, the more MNEs operations increase, the more acquisitions may be selected. In addition to the above, mergers are preferred to greenfield investment if the fixed costs of the from-the-scratch investment is adequately large and expensive (Raff, Ryan & Stähler, 2009).

In correspondence with a evident market familiarization, experts agree with the idea that a company opt for an acquisition to detain full control full returns of the investment, without sharing governance with a local partner and, consequently, avoiding any further potential problem originated from a divided management of the investment (Staley, 2015).

Another study conducted by Cheng has pointed out that firms with higher relocation and market transaction costs, extensive post-acquisition restructuring experience and high level of industrial concentration opt for an M&A mode rather than a greenfield operation, because through an acquisition the firm can not only increase its market capabilities, minimize local businesses' concurrence (Cheng, 2006). In this context, if the enterprise acquires a competitor, it can increase its market share and gain relevant monopolistic advantages (Lasserre, 2012).

A further reason that lead MNEs to acquire or merge with another firm is vertical integration



and the consequent achievement of economy of scale. In the FDI field, integrating vertically in the industry means that a firm enters in a different sector from the one in which operates, investing backward into a supplier or forward into a purchaser (Lasserre, 2012). As a result of this operation, the multinational can increase not only the range of its products and services, differentiating them and reducing firm-specific risk, but also its direct control on more phases of the production cycle (Lasserre, 2012). From this, it follows that, as already explained, the higher the volume production, the lower production, marketing and distribution expenses and, consequently, the greater maximization of the investment.

Having analyzed all the benefits of M&As, it is also necessary to list drawbacks that might dissuade an enterprise to choose this sort of investment. Among them, information asymmetries, namely the lack of reliable information about future potential acquisitions, the scarcity of appropriate targets, high acquisition costs, integration difficulties in the post-acquisition phase and the monopolistic power of the target market are the main factors that may deter potential buyers (Kang & Johansson, 2000; Teng, 2004).

To sum up, Driscoll & Paliwoda theory is demonstrated, as control, commitment and ownership are high, whereas flexibility and risk are low (Driscoll & Paliwoda, 1997).

### **2.2.5 Brownfield**

Among the numerous entry mode selectable by MNEs, brownfield<sup>23</sup> can be a good alternative to M&A and greenfield, as it allows enterprises to transfer their resources to the foreign market avoiding competition among their affiliates and, at the same time, to maintain a high degree of control over the investment (Cheng, 2006). Multinationals aiming at both high integration and local resources in the host market might choose this mode of entry if M&A and greenfield are deemed too costly. In this regard, if the firm has already post-acquisition restructuring experience, but its resources in the target market are underdeveloped, a brownfield investment represents the best entry mode choice (Cheng, 2006).

However, a firm may be dissuaded from selecting brownfield due to the potential difficulties in the assimilation of the counterpart's activities and operations, which may considerably increase investor's costs to integrate them in the corporate strategy (Cheng, 2006). In addition, the reorganization of the acquired firm can be problematic, since it can be affected by cultural differences.

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<sup>23</sup> A brownfield is defined as a new operation that entails the purchase of an existing firm by an acquirer headquartered outside the country. The acquired firm in the host country is then gutted and restructured, primarily with resources (e.g. executives, equipment, plants and product lines), in a short period of time (Cheng, 2006).

For this last form of investment as well, Driscoll & Paliwoda study confirms the results of the analysis conducted. A brownfield operation expects that control, commitment and ownership are high, whereas flexibility and risk are low (Driscoll & Paliwoda, 1997).

### **2.3 Entry modes in China**

In conjunction with the increasing number of FDI in China, a likewise number of MNEs enter the country through a growing variety of modalities. If in the initial period of flows in China, contractual joint ventures and joint exploration investments were the main tools used to enter the country, mainly to the lack of knowledge of the Chinese investment and business context, nowadays other modes have become the main forms of FDI (Liu, 2009). In this regard, Umberto Simonelli, General Counsel and Board Secretary of Brembo, has explained that the majority of multinationals prefer to be present in China through organic ways, namely M&A, greenfield and brownfield investments, in order to hold full control over their investments, protect their business core and eliminate any possible problem originated from unsuccessful collaborations with local partners (Simonelli, 2017). However, nowadays inorganic methods are also eligible and, among them, JVs and export are the most popular modes when companies are unfamiliar with the Chinese investment environment, because they can significantly reduce potential risks and allow companies to better exploit the low cost production that the host country offers (Simonelli, 2017; Liu, 2009; Staley, 2015).

Since the economic liberalization of the late seventies, due to the difficulties of doing business independently in the country and the encouragement of the local governmental authorities, foreign enterprises have entered the country through JVs, negotiating agreements with Chinese key players to establish strategic hubs locally (Liu, 2009). The collaboration usually foresees that the local partner offers its distribution channels, local labor and market access, whereas the foreign party provides intangible assets, such as advanced technology and management skills, and funds (Staley, 2015). In this way, the country obtains precious foreign capitals and knowledge fundamental to further develop national economy (Mutinelli & Piscitello, 1998; Shenkar, 1990). Furthermore, empirical studies have proved that in emerging countries the greater the intervention of the authorities in the domestic market, the more MNEs will opt for EJV (Lin, 2000). As governmental policies can significantly affect the success of the venture, it is fundamental for the firm to minimize risks and uncertainty of a constantly changing context; operating alone in such a complex environment is not safe, as the foreign investor might still be lacking in some cultural and business aspects and a mistake in the strategy could reduce its competitiveness in the market or even be fatal.

In relation to the industry analyzed by the thesis, namely the automotive sector, EJVs are the most selected entry mode. In this regard, the Development Research Center of the State Council of the People’s Republic of China has reported that in 2005 the number of automobiles manufactured by joint ventures between domestic and foreign partners in the country amounts to 72% of the total car output (Shi, 2007). Numerous sectorial EMNs has established JV operations with the biggest Chinese automotive players. Among them, it is worthy to mention the collaboration between General Motors and SAIC for the establishment of the Shanghai Pan Asia Technical Automotive Center Co. Ltd., with the aim to increase R&D activities in the country, the two agreements signed by Volkswagen with FAW and SAIC that lead the German Group to occupy half of the Chinese car market at the beginning of the new millennium, the 1992 partnership between Dongfeng Motor Corporation and Peugeot Citroen to produce Citroen-Fukang car series, the two partnerships of Toyota with FAW and GAC, and the two accords of Chang’an with Ford and Mazda (Shi, 2007; Simonelli, 2015; Svejda, 2012). Other agreements are in progress; among the biggest partnerships currently discussed, the collaboration between BMW and Great Wall for the set up of an electric Mini JV stands out (Bloomberg, 2018).

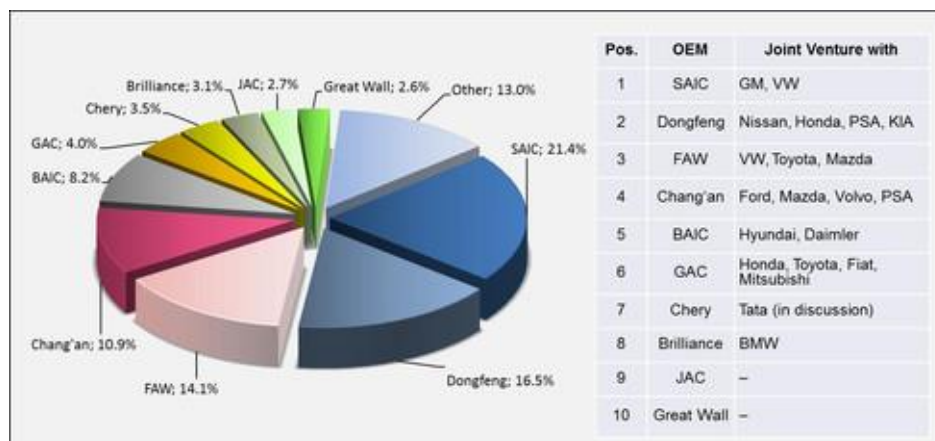


Figure 5: The largest EJVs in China in the automotive industry and percentage of commitment of the Chinese top ten manufacturers in this kind of operations (Svejda, 2012)

The vehicle spare parts market as well presents a high concentration of EJVs with foreign firms, with more than 70% of the total share possessed by the approximately 500 components enterprises with foreign investments (Shi, 2007).

In this contest, it is noteworthy to analyze the Italian firms’ entry mode choice in a host market. According to a study conducted by Bontempi and Prodi, the JV is the preferred operation<sup>24</sup>, in particular by enterprises of the Northwest, which have the longest and most profitable international

<sup>24</sup> According to the study of Mutinelli and Piscitello, 62,9% of the 1322 interviewed Italian firms that operates worldwide prefer entering foreign markets through JV (Mutinelli & Piscitello, 1998). The illustrated datum implies that no matter which the target market is, when internationalizing, Italian enterprises focus on decreasing costs and uncertainty by relying on a domestic partner.

presence in terms of trade and sites compared to other Italian geographical areas (Bontempi & Prodi, 2009). In regard to China, in spite of their international experience, Italian enterprises prefer to collaborate with a Chinese partner due to the high costs of the investment. They are usually medium-large firms located in the North-west of the peninsula, mainly operating in the automobile and intermediate goods sectors (Bontempi & Prodi, 2009). In relation with the case study of the paper, the collected data align with Brembo's characteristics.

In spite of the popularity of inorganic entry modes, acquisitions are as well established in the Asian country. As previously explained, M&As are a typical operation in the industry, because it allows firms to gain more market presence, to acquire quickly new resources (especially low-cost labor) and to achieve cost reductions by providing economic relief in the industry (Nieuwenhuis, 2015). Several scholars and market experts have stated that a new tendency is emerging recently in China: a higher number of national automakers are acquiring foreign leading companies. From a foreign perspective, the Chinese take-overs of Western enterprises represent a new and alternative way to enter into contact with the counterpart and gain more information about the modus operandi of Chinese businessmen without deploy the firm's capital. The most famous example is Geely, which acquired Volvo cars in 2010. In addition to the purchase of the holding company of the Swedish group, the Chinese society has announced the buy of the 8.2% of share of Volvo AB, truck and bus maker, for \$3.24 billion, approximately EUR 2.62 billion (Perkowski, 2018). The investment, which includes 15.6% voting rights in Volvo AB, made Geely one of the largest shareholders in the company, leading to its worldwide success in passenger cars.

## **2.4 Brembo development in China**

Since 1999, Brembo has continuously invested in China. Considered by numerous businessmen, including Mr. Bombassei himself, as the major auto manufacturer of the world, the country represents a big challenge for the Italian company. As for other MNEs, not being active in this booming market means loose the great opportunity to earn money and strengthen the international position of the Group.

As the president declared to Mr. Mutinelli during the interview for Mondo Cina, the business has entered China with the ultimate goal to extend and consolidate its presence in the prosperous market and gain recognition. Additional reasons are the sustenance of the competition against other OEMs of the automotive sector, the fully exploitation of local resources and labor force, the proximity to local customers and the supply of innovative and sophisticated disc brakes to Chinese people who shown an increased interest in luxury and sport vehicles (Grand View Research, 2017; Mutinelli, 2016). The high commitment of the Group during its twenty-year presence in the country reflects the

great importance of the nation in the company's global strategy, as China is the company's third market after Europe and North America (Brembo, 2017). In this context, Mr. Simonelli has affirmed that, following the domestic market development, nowadays China is no longer considered a simple extension of the enterprise as in the past, but rather a target market in which internal value and competitiveness are created. Starting from this premise, it is necessary to examine in detail the Group's development in the country, which have similar features of the advancement of any other multinational.

#### **2.4.1 Early years (1999 – 2007)**

The first operations in China of the firm date back to 1990s, a period characterized by the political and social deadlock that followed the Tiananmen Square protests of 1989. In the first years, the company exported its most popular products in the local market in compliance with domestic regulations and the Five-Year Plans, in particular with the 10<sup>th</sup> Plan (2001 – 2005), which promoted internal consumptions (Simonelli, 2017). Since the goal of the authorities was the increase of the internal market and citizens' wealth, the beginning of the new millennium was marked by the total absence of governmental support to FDI and operations of foreign firms in China (Simonelli, 2017). The consequent institutional lack of assistance limited considerably the potential growth in the country of the company: total revenues were indeed quite low in the first period and have never boomed, amounting to EUR 2 million in opposition to the estimated 7/8 million (Simonelli, 2017).

Howbeit, the insufficient political help was not the only factor that has determined the poor sales performance. Since the beginning of its activities in the country, Brembo has focused only on the economical aspect of doing business, underestimating its cultural sphere. It simply applied the same strategy adopted to enter other countries, e.g. the US or Europe, taking for granted that it would have been a successful approach, since it had already worked. The following strategy expects the company to behave like an MNE, imposing its own attitude as it is similar to the frame of mind and way of doing business of the involved counterparts. However, the described method was not completely fortunate in China, because cultural and business differences were too evident. In light of this, a new strategy was needed, to attempt to fully exploit the business opportunities that the domestic market offers.

#### **2.4.2 Recent years (2007 – today)**

After a period of discussion among the executives of the Group, it has been concluded that a wrong approach has been adopted. The lack of interest in the cultural and political environment has led Brembo not to fully understand how different the Chinese mentality is from the Italian attitude.

China is not North America or Europe; its values are completely different from the Western ones: it is a socialist country with thousand-year customs and traditions that only recently started to embrace capitalism. In light of this, Brembo needed a new strategic plan that considered all the differences between Italy and China. In order to better understand the peculiarities of the country and make a more suitable strategic plan, since 2007, the company is committed to the study of Chinese culture, tradition and history. Through the intensive learning, the firm has finally managed to realize its past mistakes and, consequently, pursued a strategy inspired to the mentality of a SME rather than the previous MNE approach. Through the brand-new attitude, the Italian enterprise puts at the center of attention social and cultural phenomena, hoping to build mutual trust with Chinese counterparts through constant interaction and application of the concepts learned in its cultural studies (Simonelli, 2015). Furthermore, the Group has as well realized that the first step to be successful in China is to prepare itself properly in Italy. A firm does not only need a good strategy, but also the right product, the right people and, above all, the necessity to understand that you enter the country to produce locally and not to export from Italy. In other words, China has to be considered as a big market in which a company enters to become a key player and to earn market shares (Simonelli, 2015).

In addition to the switch in the business planning, the changed aptitude of institutions towards Western companies has played an essential role in the development of the Group activities. In particular, the 11<sup>th</sup> Five-Year Plan (2006 – 2010) aimed at the improvement of the automotive sector in China, assuring help to anyone involved in the industry. Consequently, Brembo started to receive support from local authorities from a bureaucratic and legal point of view (Simonelli, 2017). Due to the encouraging government policies, the progressive process of opening to the world and the gradual improvement of citizens' wealth, the Chinese automotive industry could finally take off and Brembo were eventually ready to affirm itself as the largest brake systems' producer in the Asian country.

Besides, the compliance with the following 12<sup>th</sup> Five-Year Plan, which focuses on the development of new clear energies, electric cars, energy savings and higher quality, giving great impulse to product innovation in the automotive sector, and the 13<sup>th</sup> Plan, which puts emphasis on innovation and green economy, seems fully in line with the firm's general strategy, providing further possibilities of growth in the market (Simonelli, 2017). Thanks to the new business plan and political scenario, within a few years, an exponential increase in the company's sales volume in China can be observed, despite of the recent slowdown of the economic growth in the country (Brembo, 2016; Stanley, 2016). Specifically, in 2016, the total sales in the country amount to 202 million €,

representing 8,9% of the total revenues of the Corporate Group (Brembo, 2017; Simonelli 2017).

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<b>Fatturato</b>																			
Cina in milioni €	0	0	2	2,1	2,5	2,6	2,8	3	3,5	8	22	49	54	59	81	93	120	202	
Dipendenti Cina 31.12	0	0	700	600	500	450	400	350	300	266	362	261	396	381	358	412	512	1.235	
Retribuz media/mese operatio Cina	160 €											200/300 €					300/400 €		

Figure 6: Brembo total sales in China 1999 – 2016 (in million euros) (Simonelli, 2017).

Furthermore, the collaboration with some Chinese automakers enabled the firm not only to further expand its presence, but also increase its R&D activities in the country. In particular, the technical cooperation with Great Wall has led the Italian firm to optimize the design of its brakes, reducing the weight of the Chinese company’s vehicles of eight kilograms (Brembo, 2018). The following decrease is the result of the significant growth of the Nanjing site on the issue, which has seen larger investments in terms of resources, know-how and equipment and a larger number of Chinese employees instructed according to Brembo’s values (Brembo, 2018).

## 2.5 Brembo current geographical presence in China

In light of the previously depicted expansion of Brembo in China, the company is present in the country as follows:

- Asimco Meilian Braking Systems (Langfang) Co. Ltd. Its activities are the fusion, production and sale of foundry disc brakes for the OE market.
- Brembo (Nanjing) Automotive Components Co. Ltd., which deals with the fusion, production, assembly and sale of aluminum foundry products for cars and commercial vehicles.
- Brembo Nanjing Brake Systems Co. Ltd., which handles the development, production and sale of disc brakes for the OE car market and braking systems for cars and commercial vehicles.
- Brembo Nanjing Foundry Co. Ltd., which takes care of the production and sale of foundry products for the automotive market, including AM (mainly spare parts).
- Qingdao Brembo Trading Co. Ltd., which manages logistic and commercial activities and AM services.

## 2.6. Entry modes chosen by Brembo

It goes without saying that the success of Brembo in China is the result not only of the change in the strategy, but also of the selection of the appropriate entry modes. Among the possible modality of entrance, the firm has opted for an internationalization process that follows the Uppsala model to develop its operations in the country; in fact the Italian company’s entrance in China has followed a gradual approach and incremental commitment. Specifically, the Group in the first phase was present

with irregular export, then with agents active in the largest cities of the country and lastly established a direct participation in the local market through EJVs and M&A operations. The progressive growth and change of entry modes are the result of the choice of the Group firstly to acquaint itself with the local market through export and JVs and later, once fully understood the domestic economic, political and business environment, to hold a higher control of investments in the country through direct acquisitions of Chinese firms (Simonelli, 2017). From this, it follows that the enterprise applied different entry mode in the same market. In particular, the investments of the first phase of its presence in the Chinese market have considerably changed in the years, opting for a double investment for certain sites. For all the cases illustrated, Brembo made a detailed assessment, evaluating a series of factors, which include location, economic, ownership, efficiency and other elements that are not going to be discussed in the paper, to identify the best entry mode. In relation to the factors depicted in the first part of the chapter, the enterprise conducted a careful investigation to determine host country and industry characteristics. The results obtained by the company are the same as the information provided in the first chapter. In particular, it has been analyzed the economic and financial context, governmental policies, legal requirements, financial and entry barriers and potential risks for the country factors, whereas industry-specific aspects include firm's sectorial knowledge, general market trends, demand, customer necessities and, tastes and preferences, existing competitors, business environment. As far as the firm-specific components are concerned, the Group focused more on market experience, business strategy, achievable goals, control holding, protection of the business core and competitive advantages and improvement of the production cycle.

Having said that, the section firstly carefully explains each investment made by the Group in China and then analyzes in detail the determinants of choice of the entry mode for each FDI.

Taking into consideration export, as other MNEs, this entry mode was the first one adopted by the enterprise to enter the Chinese market. As already explained in the previous chapter, Brembo is an export-oriented company; it gradually enters the market not only to get a feedback of its actions at the least cost, but also to acquire more information about market tendencies and customers' needs. From this, it is evident the compliance of the Group with the Uppsala model: it entered China firstly with irregular trade and that with some agents active in the largest city of the country (Simonelli, 2017). In addition to the gaining of precious knowledge about the local context, following the governmental permission for foreign firms to export their products directly<sup>25</sup>, more and more managers started to think of China not only as the "factory of the world", but also as a potential target

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<sup>25</sup> In the past, only a few import enterprises were authorized by the Chinese government to export in the country, however after the admittance to WTO, all kind of businesses could export their products directly (Teng, 2004).



for their business (Teng, 2004, Mutinelli, 2016). Therefore, numerous competitors massively made investments in the country. In light of the increase of concurrence in the market, export itself does not guarantee to maintain its market share anymore and, consequently, Brembo searched for other competitive ways to be present in China (Mutinelli, 2016).

### **2.6.1 Brembo Nanjing Brake Systems Co. Ltd.**

In 1999, Brembo started its first investment in China with the negotiations to set up a JV with Yuejin Motor Group, a society of the Nanjing Automobile Corp. (NAC), one of the largest Chinese automobile manufacturers. The venture, officially founded in 2001, has as its objective the realization of the Nanjing Yuejin Automotive Brake System (NYABS), an entity for producing braking systems for cars and commercial vehicles (Brembo, 2012). In 2001, Brembo bought 27,75% of NYABS. In 2007, NAC merged with the previously mentioned Shanghai Automotive Industrial Corp. (SAIC), one of the biggest state-owned Chinese manufacturers of cars and commercial vehicles (Brembo, 2012; Automotive News China, 2013). Following the integration between the two Chinese companies, NAC transferred its shares to Donghua Automotive Industrial Co. Ltd, another society of SAIC. In February 2008, the Italian company through Brembo China bought the 42,25% of shares of NYABS from a majority JV signed in 2005 with the public-private financial society Simest. In this way, Brembo owned directly and indirectly the 70% of the share capital of NYABS, which in the meantime changed its name to Brembo Nanjing Brake Systems (BNBS). Once the Italian Group got the majority of the venture, it started to build its main Chinese plant in Nanjing, with an investment of EUR 70 million, equal to RMB 585 million (Brembo, 2012). In December 2009, Brembo and Donghua signed an agreement for the purchase of machineries for the plant. The 25<sup>th</sup> April 2012 the site has been officially inaugurated. Covering an area of 95.000 m<sup>2</sup>, the plant includes two big factories, 41 productive lines, a cast iron foundry, processing and monitoring of discs and calipers department, a R&D center and a testing center (Brembo, 2017). In the site, every phase of the production cycle, from the arrival of raw materials to the shipping of final products, has been integrated. Lastly, the 8<sup>th</sup> August 2013 the Italian firm bought the remaining 30% of the JV of BNBS, paying RMB 90,5 million, approximately EUR 11 million, to SAIC in order to acquire full control over the society and the plant (Brembo, 2017; Mutinelli 2016).

Analyzing the reasons of Brembo's initial choice of a JV, Mr. Bombassei has declared that the initial choice of JV was determined by the necessity to better understand the local market and to expand itself in the region. In addition to the gaining of knowledge and market share, the Italian company had also the objectives to access to restricted markets and capabilities, to exploit the distribution network of the Chinese partners and to contain any potential risk. To achieve these goals,

the Group accepted to hold a minority share in the NYABS (Mutinelli, 2016; Simonelli, 2017). Through the statement of the President, it has been once again highlighted the difficulty to affirm by itself in the country without a deep comprehension of the local environment and an initial intense collaboration with domestic partners. However, once the firm became more familiar with the Chinese context, it decided to acquire the majority share ownership of the venture, since being the minority shareholder implies lower control, more limitations in the entity's governance and a scarce expansion in the market.

In light of this premise, it is essential to underline how the JV was a complex investment for Brembo, not only because it was the Group's first investment in China, leading it to face directly for the first time a new business environment based on different values and to a continuous negotiations and compromises with Chinese executives, but also because a remarkable increase of costs for sending Italian managers in China to train local executives and to protect the business core was observed (Simonelli, 2017).

Through the following greenfield investment, namely the construction of the Nanjing plant, the company managed to further consolidate its position in the country, as the site is able to provide the Chinese market with sophisticated braking systems that meet the Italian company's requirements of innovation, design, performance, comfort and safety, reducing trade costs and problems (Brembo, 2012). The absence of a local partner is the demonstration of the high knowledge gained by Brembo throughout the years and the wish of the company to maintain full control of the investment.

### **2.6.2 Brembo China Brake System Co. Ltd**

In 2005, Brembo signed a JV agreement with Simest, an Italian public-private financial society that promotes Italian investments abroad, for the realization of Brembo China Brake System Co. Ltd., simply known as Brembo China, in Beijing with a total investment of EUR 15 million (Brembo, 2005). Brembo owned 60% of the share capital, whereas Simest together with Venture Capital Fund for China possessed 40% of shares (Brembo, 2005). Established in 2009, the venture was specialized in the production and the sale of brake components for the OEM and supplied most of the foreign automakers in the country. In December 2016, BCBS was liquidated by Brembo, in order to concentrate the production activities in the plant located in Langfang, avoiding investing and wasting money in similar projects (Simonelli, 2017).

As in the case of BNBS, the Group chose the JV mode to minimize the initial uncertainty and increase its knowledge related to the Chinese business and political environment. However, once overcame these obstacles and verified the success of more organic modes of entry, Brembo opted for

other more profitable solutions to enter the country.

### **2.6.3 Asimco Meilian Braking System Co. Ltd. (Langfang)**

After the gradual gain of experience in the Chinese market, Brembo started to think to operate alone in China. The opportunity comes in 2015, when the Italian company signed an agreement with Asimco (China) Ltd. and Asimco Technologies Hong Kong Ltd. for the acquisition of 66% of Asimco Meilian Braking System Co. Ltd., a Chinese society located in Langfang, in Hebei province, near Beijing, manufacturing braking systems (Brembo, 2015). Langfang Assets Operation Co. Ltd., a public society that belongs to the Municipality of Langfang, owns the remaining 34% of the share capital. The 19<sup>th</sup> May 2016 Brembo officially acquired the Chinese entity at the closing operation cost of RMB 580.060 thousand, equal to EUR 80 million (Brembo, 2017). Asimco has a plant manufacturing cast iron disc brakes and a foundry, which nowadays produces 50 thousand tons of cast iron every year. In this regard, Mr. Massimo Sandrone, Cast iron foundries Operations Director, explains that the next target of the affiliate is the optimization and the increase of its overall capacity to 55 thousand tons. To achieve this goal, the company is currently reorganizing its management and administrative abilities through, for instance, the transfer of some Chinese technicians from Nanjing or Italian managers from Stezzano (Brembo, 2017).

Before analyzing the reasons that led Brembo to acquire Asimco, it is necessary to remember to the reader that, as already shown in the previous chapter, M&As among key players are frequently recurring in the automotive sector. However, among automakers involved in M&A operations, no Italian company is entailed. Generally speaking, acquisitions are an unusual entry mode for Italian firms, mainly due to the lack of financial resources and the large size of the investment (Simonelli, 2017). However, contrary to national fellows, Brembo made the biggest acquisition ever from an Italian firm in China (Mutinelli, 2016). The reason that led the company to acquire Asimco is mainly to put itself on display, by selling to institutional authorities and labor force the idea of an imposing and successful enterprise. The following strategy complies with the recently increasingly widespread Chinese conviction of “the bigger, the better”<sup>26</sup>, according to which through the possession of bigger entities, Chinese people can better show off their increased economic health (Simonelli, 2017). Of course, through the acquisition the firm aims as well to expand further its presence in the market, reinforce its reputation as a stable and reliable partner for the already existing customers and easily and immediately gain new strategic clients, extra resources and industrial capacities, which

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<sup>26</sup> In the last years, following the Chinese opening to Western lifestyle, more and more consumers Chinese consumers started to appreciate the idea, as the showing off of their increased health can allow them to improve their social status.

significantly increased the Group's market share and competitiveness (Simonelli, 2017).

Furthermore, the selection of Asimco as the most appropriate entity for the acquisition brought Brembo substantial benefits from holding a leading firm of the Chinese automotive sector. The advantages include the strategic geographical position and the direct relation with the domestic authorities. Regarding the location, Asimco is situated in an area swarmed with Western OEM premium automakers<sup>27</sup>, a factor of primary importance for the Group at the strategic and the profitability level (Brembo, 2005). As far as the governmental connection is concerned, the Chinese company is state-owned, namely controlled by local power. The presence of political authorities in the business world is not unusual in China, rather it is appropriate to consider them as key players in the domestic market. In light of this, from a strategic point of view, it is essential for Brembo to develop and maintain good relationships with all the institutional entities, in order to receive precious support; otherwise, it is very difficult to do business in the country (Simonelli, 2017).

#### **2.6.4 Brembo Nanjing Automotive Components Co. Ltd.**

Established in April 2016, in August of the same year Brembo started the works for the construction from scratch of a new plant for the production of aluminum calipers in Lishui, close to the already existing factory in Nanjing. At its completion at the end of 2017, the 100% owned by Brembo's site (known as BNAC) covers an area of around 33.000 m<sup>2</sup> and includes a foundry, an integrated mechanical processing area, 3.000 m<sup>2</sup> of offices and an innovative closed-loop anodization machinery, in compliance with the rigid local environmental regulations (Brembo, 2017). Moreover, the site integrates the whole production process from melting to machining, oxidation and assembly until delivery to the customer (Ferrari, 2018). With the production started from 2<sup>nd</sup> January 2018, at full capacity it will manufacture each year more than two million of calipers, spindles and stub axles, will work more than 15 thousand tons of cast iron and will be at the forefront for the integration and the automation of the production processes (Brembo, 2017; Ferrari, 2018).

As in the case of BNBS, Mr. Simonelli has affirmed that the selection of a greenfield operation has been dictated by the wish to hold a total and direct control over the investment. In this regard, Mr. Matteo Tiraboschi, executive vice-president of Brembo, in an interview for My Brembo has further explained that the Group was able to achieve this important goal only thanks to the experience gained in the years about the local market tendencies and the Chinese modus operandi and, above all, the support of the local institutions. In addition, he also stated that the independent management of

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<sup>27</sup> OEMs customers present in China are European (BMW, Daimler, Psa Peugeot Citroën, Volkswagen), North American (Ford, GM), Japanese (Honda, Mazda, Nissan, Suzuki, Toyota) and Korean (Hyundai, Kia) (Simonelli, 2017). They are present in the market mainly through JVs with Chinese companies (Brembo, 2017).

the plant allows the Group not only to eliminate all the potential problems and costs of a collaboration with a Chinese partner, such as shared governance and costs of training and supervision to name a few, but also to better support BNSB activities, further extend the firm presence in the country and to protect its competitive advantages from any leakage, in particular to safeguard the production process of aluminum calipers, since a very few Chinese companies produce these sophisticated and innovative components (Grand View Research, 2017; Brembo, 2017; Tiraboschi, 2017). Lastly, the absence of a suitable partner in the Nanjing area led the company to establish a greenfield rather than another form of investment: as the regional companies are active only in the low segment of the market, Brembo has preferred to operate on its own, being sure to maintain the high standards of its products (Simonelli, 2017).

In the same interview, however, Mr. Tiraboschi has also highlighted how complex the establishment of the investment has been for the company in terms of construction, launch, growth to full capacity and size of the operation. However, it was nothing compared to the greenfield deal for BNBS in terms of commitment. For both investments, the firm hinged on its excellent managerial and organizational capabilities and on the experience of other greenfield investments made worldwide, following a well-established model that so far has always worked well in order to minimize all the problems (Ferrari, 2018).

#### **2.6.5 Brembo Nanjing Foundry Co. Ltd.**

Founded in 2009 and totally controlled by Brembo, in 2010 the Group acquired the cast iron foundry activities of Donghua for the price of EUR 9 million. The plant taken over by the Chinese partner includes a foundry for the manufacture of calipers and disc brakes, which the company aims to renovate through a brownfield operation of the whole production site in collaboration with BNBS. Through the revamping of the plant, Brembo aims at boosting its overall production capacity, tripling the production of discs and calipers for the Chinese market in compliance with its standards of performance, style and comfort (Brembo, 2010). In fact, against the 47 thousand tons of cast iron manufactured in 2015 and the 58 thousand of 2016, its productive capacity is expected to reach 105 thousand tons in 2019 and 125 thousand in 2020 (Brembo, 2017). At the end of the large intervention in the first half of 2017, the plant of Nanjing has been provided of the best technologies, the most sophisticated machineries and the best practices and processes for the production of disc brakes. Since September 2017, the foundry works again at full capacity.

The choice of an acquisition and the following brownfield operation was mainly motivated by the desire of the firm to immediately operate in the market, without losing precious time. Different from Asimco, the acquisition did not aim to show off to the local government, but rather to

immediately put hands on the site's existing infrastructures, production lines, labor force and suppliers (Simonelli, 2017). In this way, the Group could assist more efficiently and in a structured way the flourishing Chinese automotive market and immediately keep up with the increasing domestic demand (Brembo, 2017). On the contrary, the choice of a brownfield operation is mainly due to time issue. Once verified that Donghua's foundry activities complied with Brembo standards and necessities, the Italian company discarded other entry options to avoid the long processes of negotiation with local partners and of obtainment of governmental authorizations, typical of other forms of FDI (Brembo, 2017; Automotive Manufacturing Solutions, 2008).

In light of this, it is however necessary to underline the drawbacks of the brownfield operation, different from the obstacles that can be encountered if choosing other entry modes. In this regard, Mr. Paolo Zambelli, China Disc Foundries Operations Manager, has affirmed that one of the biggest challenges faced by the company throughout the expansion is the management of the productive operations in the middle of a construction site. In other words, coordinating the already existing production cycle with the preparation and the installation of the new equipment has been extremely complicated, however through time optimization and the maximum exploitation of periods of non-production, Brembo has brilliantly accomplished its goal, the whole thing always guaranteeing absolute safety to workers (Brembo, 2017). Optimization has been obtained through the detailed planning of any phase of the operation: from the definition of the project, technical specificities and suppliers' analysis up to complete control of the machinery installation and final audits of the required performances, every aspect has been managed carefully in complete independence (Brembo, 2017).

#### **2.6.6 Reasons for Brembo not choosing WFOE**

As the reader have may noticed, Brembo has never set up a WFOE<sup>28</sup> to enter China. Nowadays, numerous businesses select this entry mode to invest in China, however its establishment is not permitted to everyone. Before investing in China, a MNE has to consult the Catalogue for the Guidance of Foreign Investment Industries (外商投资产业指导目录), a detailed list of all the industrial sectors jointly drawn up by the National Development and Reform Commission (NDRC) and the Ministry of Commerce (MOFCOM) and entered into force the 31<sup>st</sup> October 2007, in which industries are classified as encouraged, restricted or prohibited to FDI (ICE, 2011). Foreign firms have to check in which category is their industry and, consequently, understand if their sector is eligible for a WFOE. As the ultimate goal of Chinese opening policy is to attract foreign funds, technology and skills to better support national firms and satisfy the increasing demand of customers,

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<sup>28</sup> A Wholly Foreign-owned enterprise is a limited liability company established under Chinese company law. Its shareholder is usually a single 100% foreign business that completely owns the entity (China Briefing, 2006, p.232).

if the business scope of your firm is in conformity with the political strategy, then WFOE is entitled, otherwise it is restricted (such as in franchising, extraction of metals and telecommunication) or prohibited (like in the automotive, banking, media, steel, online games and weapons industries) (China Briefing, 2006; ICE, 2011; Cavalieri, 2015). According to domestic authorities, the set up of a WFOE in a forbidden sector might strongly undermine the public interest, increase pollution, damage natural resources, alter domestic economy and threaten the national security. In reality, the prohibition is the result of the interest of the government to keep its hands on strategically sensitive and profitable industries (Lasserre, 2012). Independently from the reason, due to the interdiction, MNEs operating in these economic fields are compelled by the law to enter the country with other modalities, usually through a local participation, sometimes even as the minority shareholder (Cavalieri, 2015). From this, it follows that foreign enterprises operating in the automotive sector have no alternative but to be present in the country through JV, since the manufacture of complete vehicles falls under the category of prohibited investment (Mears & Wang, 2016).

On this issue, the 2011 edition of the Catalogue and the 2014 Draft Catalogue allowed the government to make some important adjustments to the classification of some sectors, including the automotive one (Chin, Wang & Xin, 2015). In relation to the industry, the Draft Catalogue states that the foreign investor is conceded to form a maximum of two EJVs with Chinese partners that manufacture the same category of vehicles<sup>29</sup> and can establish an EJV with a maximum of two Chinese partners (CEDARS, CEIBS, IESE & Roland Berger, 2016; Chin, Wang & Xin, 2015). As regards social capital, the foreign company is required to own not less than 25% of the venture's equity, however cannot have more than 50% of shares (Mears & Wang, 2016; CEDARS, CEIBS, IESE & Roland Berger, 2016). Lastly, as far as the transfer of technology is concerned, the foreign party is compelled by the law to transfer its relevant manufacturing technology and know-how to the EJV as part of the price for entry the market (Mears & Wang, 2016). Amendments have been made in the classification of industries as well. If the complete production of vehicles is still a prohibited sector in China, firms manufacturing components are another matter: as the Catalogue considers the sector as a restricted one, all the foreign investment projects in this area are subjected to a rigorous scrutiny of the NDRC, which reserves for itself the power of approval of the investments in the country (Chin, Wang & Xin, 2015). Despite this, WFOE are almost never authorized and, in the same way as automakers, companies producing vehicles' parts enter China mostly through partnerships. Only for specific electronic devices (such as bus network technologies, electronic controllers for electric power steering systems and embedded electronic integrated systems), the Draft Catalogue

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<sup>29</sup> Regarding this limit, the 2014 Draft Catalogue reports as well that the restriction is not applied in case the foreign party other automobile manufacturers in China together with a Chinese joint venture partner (Chin, Wang & Xin, 2015).

removes the requirement of a JV; it follows that WFOEs are permitted in these industries (Chin, Wang & Xin, 2015).

However, the current situation is going to change drastically in the next coming years. The 17<sup>th</sup> April 2018 the NDRC has announced that China will remove foreign-ownership limits, permitting foreign investors to take full ownership and liberalizing the industry for the first time since 1994 (Bloomberg, 2018). The abolishment of the cap and the consequent openness to foreign investments involves firstly the shipbuilding and aircraft field (Tgcom24, 2018). Then, by the end of 2018, the regulation will be further extended to electric vehicles, which will significantly beneficiate electric car producers such as Tesla (Mackenzie, 2018). The process will continue with the removal of the foreign capital limit for commercial vehicles ventures in 2020 and for passenger vehicles partnerships in 2022 (Bloomberg, 2018). The possess of more than 50% of share capital by foreign automakers implies a better access to China, with finally the possibility of going solo, facilitations in doing business in the country and higher profits (Mackenzie, 2018; Bloomberg, 2018). In opposition to the protectionism in trade and investments that characterized the last decades, local authorities aim to further foster the development of domestic firms, better supporting the advance of their R&D activities and accelerating the creation of their own brands through the increase of pressure to local automakers (Chin, Wang & Xin, 2015; Bloomberg, 2018). Through these maneuvers, it is foreseeable that Chinese companies not only will face a fiercer competition, with the risk of lowering prices and earning a weaker margin, but also will lose precious cash flows from EJVs; however, luckily for them, it will happen gradually, as the buying out of partners is particularly expensive and require billions of dollars (Bloomberg, 2018). Furthermore, numerous global car manufacturers have already affirmed that they will not abandon the domestic partner, as it is still considered an essential element for reaching success in the country.



## **CHAPTER THREE**

### **DIFFICULTIES FACED BY BREMBO AS A MNE ENTERING CHINA**

In the recent years, a long list of MNEs declared to have failed in China. The reasons of the fiasco are numberless: communication and daily operations problems, lack of support from local institutions, strategic mismatch, conflicts related to human resources management and technology transfer, just to name a few (Chang & Jen, 2001). When selecting the proper entry mode, it is normal that problems may arise, as the foreign party might have different goals, values and approaches or the political context might considerably differ. With regard to China, according to a report drawn up by De Luca and Vianelli about the biggest difficulties perceived by Italian firms when investing in China, for more than 50% of the interviewed enterprises, differences in culture, protection of intellectual properties, partner's peculiarities and bureaucracy are the most critical points (De Luca & Vianelli, 2011). In order to prevent any potential mistake and loss, firms need to identify how to deal with critical issues, how to reduce risks and how to make the best investment decisions (Lin & Lin, 2008). In this context, Driscoll & Paliwoda have affirmed that the understanding of these differences influences as well the different dimensions of entry mode choice and the following selection of the modality (Driscoll & Paliwoda, 1997). Moreover, as Chinese economic and political conditions are continuously changing, the environment in which a firm targets to enter must be constantly reevaluated and consequently the business plan of the venture must adapt to these variable circumstances (Chang & Jen, 2001).

The identification of the possible obstacles is usually conducted by both SMEs and MNEs. In this regard, it is necessary to stress that all the difficulties that a firm might face in China are highly influenced by its size and, consequently, they can be perceived differently by business entities. Several studies have demonstrated that the larger the company, the larger its financial and managerial resources and production capacity and the greater efforts can be made by the enterprise to minimize problems (Katsikeas & Morgan, 1994). Specifically, some scholars have reported that "As a firm grows in size, it becomes more complex in terms of management structure, product and market differentiation and geographical dispersion so that new management and marketing approaches become more difficult to design, implement and control" (Oyedijo, Olateju et al., 2010, pp. 2). From this, it is clear that since multinationals possess more resources, they can achieve higher levels of scale economies and reduce operation risks. In other words, bigger companies perceive market

entrance and the development of their activities as less difficult to manage in comparison to smaller enterprises. On the other hand, in spite of the high risk management, small and medium sized firms are more flexible to market changes and, consequently, to swift their business plans and assets (Bhatti, 2016). In fact, it is easier for them to acquire local resources and knowledge and to adapt better to market changes and conditions due to their simpler internal procedures and their limited quantity of investments. Furthermore, scholars have observed that SMEs face more difficulties with the sustainability of a constant growth and the acquaintance with institutional factors, whereas multinationals are more vulnerable to firm-specific and organizational issues and market risks and trends (Rahman, Uddin & Lodorfos, 2017). As regards Brembo, the MNE has encountered most of the problems faced by other multinationals investing in the country. In particular, the re-organization of this internal resources and the gradual acquaintance of the Chinese world allowed the Group to be successful in China. Starting from this premise, the following sections firstly examine the recurring problems encountered by MNEs when entering China and then focus on how Brembo has resolved the same issues, once it has made the investments described in the previous chapter.

### **3.1 Distance**

The majority of difficulties incurred by multinationals operating in a foreign country results from barriers originated by distance. The word does not imply only the geographical separation among countries, but also cultural, administrative, political and economic differences (Ghemawat, 2001; Liu, 2009). Specifically, administrative distance is related to the absence of colonial ties and a shared monetary system; political divergences concern hostility, non-adhesion to international associations and lack of compliance with global standards; economic differences involve distinctions in income, demand and quality of life. Therefore, as the reader might easily notice, anything can create distance: language, ethnicity, education, religion, social norms, lifestyle, money, climate, consumer income, quality of resources, industrial development, consumers' product preferences, are just a few factors that prevent or disturb the flow of information between partners (Ghemawat, 2001; Lasserre, 2012; Johanson & Wiedersheim-Paul, 1975). In this context, these obstacles to information, also known as psychic distance, play an important role in the determination of the entry mode and the following development of a successful venture. In this regard, numerous researchers have proved that closer geographical proximity makes it easier for firms to enter foreign markets due to the high degree of familiarity and similarities (Lasserre, 2012; Johanson & Wiedersheim-Paul, 1975).

Scientific studies have proved that distance affects trust and compatibility between partners, because it might create misunderstandings and hinder teamwork. In order to reduce the abovementioned negative effects, MNEs are required firstly to deeply understand the culture,

economic, political and administrative situation of the target market, and then modify and adapt the corporate decision-making process to local procedures, because numerous standards and routines that are expected in the Western business world may not apply in China (Pukthuanthong & Walker, 2007).

### 3.1.1 Culture

Culture is the collective programming of minds that differentiate the reasons and the behaviors of a social group from those of another one (Hofstede, 1983). Specific literature since always has dealt with the issue, trying to understand which are the factors that create most differences in terms of beliefs, customs, knowledge and values. Among the numerous studies, Hofstede's work on cultural dimension has a profound influence on the field. With the aim to study the differences in cultures among nations about work-related values, the professor created a model consisting of four dimensions (Hofstede, 1983; Hofstede Insights, 2018; Nobes & Parker, 2016; Staley, 2015):

- Power distance refers to the level a society accepts inequalities among people. The concept is associated with hierarchical order: as each individual has its own place in the society, the more powerful a social group or a single person is, the more the distance with other classes.
- Uncertainty avoidance indicates how a society tries to control the future through security, predictability and stability. It follows that societies with strong uncertainty maintain strict rules, whereas societies with weak uncertainty practice counts more than regulations.
- Individualism versus collectivism, namely the degree of independence that a society maintains among individuals. If individualism prevails, the society is more self-interest based, whereas if collectivism is widespread, collaboration and teamwork are prevalent.
- Masculinity versus femininity, men and women have different approaches to life and problems. Men valorize heroism, material success and personal achievement; on the contrary, women values relationships, modesty and quality of life

On the basis of the provided general explanation of the concept of culture, it is fundamental for the purpose of the thesis to contextualize cultural differences in the business context. From a company's perspective, socio-cultural distance is definitely one of the most affecting elements of the performance and the success of a FDI, as it strictly linked to "The difference among foreign investors and local partners in terms of cultures, management style, business practices, etc." (Hu & Chen, 1996, pp. 167). In order to understand how international management and values in the workplace are influenced by culture, it is necessary to refer again to the Hofstede's model. At a business level, power distance is correlated to the hierarchical order inside the firm (the more a department – usually the Board of director, or a manager is powerful and autocratical, the more is the distance with other work divisions and employees), uncertainty avoidance is linked with its ability to minimize potential risks

through formal rules which guarantee a highly structured environment with clearly defined responsibilities and tasks for workers, individualism and collectivism is strictly related to the ability of the managers of the firm to work as a team, and, lastly, masculinity and femininity concerns the different ideas and opinions men and women can provide to the company (Nobes & Parker, 2016; Staley, 2015).

In line of Hofstede's results, further empirical studies have demonstrated that the smaller the cultural gap among parties, the easier is the collaboration, because managers from similar cultures are more likely to share the same beliefs, customs, knowledge and values (Hu & Chen, 1996, Hofstede Insights, 2018). In Western countries, these differences are minor owing to the already mentioned psychic proximity, which lead to an affinity between parties that considerably reduces misunderstandings, communication difficulties, management conflicts and the transfer of resources and organizational capabilities (Hu & Chen, 1996; Pukthuanthong & Walker, 2007; Liu, 2009). On the contrary, Western companies investing in China are definitely going to encounter a higher quantity of problems as cultural distance is greater. Some cultural attributes, such as language, are easily perceived and understood, however others, such as social norms, are nearly invisible, because they are part of a system of unspoken principles that influences people in their everyday decisions and interactions (Ghemawat, 2001). Confucianism, Daoism, Guanxi, losing face, social hierarchy and respect of the superiors are all basic features of Chinese society foreign to Western culture.

As several studies suggest, cultural distance can be reduced through continuous study of local history and traditions and participation in events promoting China's values and knowledge; communication problems linked to language difference can be overcome through the hiring of employees who can speak the domestic language; local customs and lifestyles can be learned through a constant contact with Chinese partners, frequent visits of each other's headquarters and production plants, and support from governmental institutions or international associations.

### **3.1.1.1 Chinese approach to business**

The cultural dissimilarity entails a different approach to business among partners. When cutting a deal, a MNE usually represents its culture and its domestic ideas of authority, education, quality, politics and their concept of "right and wrong", of which the counterpart might not have a deep knowledge or only recently started to be interested in. While doing business in China, foreign managers need to be fully aware of this: since the greater distance means a different attitude, they cannot assume that the Chinese party will simply understand their business proposals just by looking at contracts, as usually happens with Western partners, and comply with it (Chang & Jen, 2001). If it persists too much on a particular point, the counterpart will likely not to accept the project, because

the business values and concepts of the foreign firm may excessively differ from its own convictions, and, therefore, the negotiation will easily reach a deadlock (Chang & Jen, 2001).

Under these circumstances, it is important for the purposes of the study to analyze all the discrepancies between the two attitudes that may hinder the success of the investment. First, foreign and Chinese companies' business goals have a substantial difference: if Western entrepreneurs pursue profit maximization, efficiency and public information, all values related to capitalism and independentism, on the contrary Chinese *homme d'affaires* put emphasis on personal relationships, harmony, seniority and information asymmetry between firm's insiders and external, principles correlated with the already mentioned "capitalist socialism" (Pukthuanthong & Walker, 2007; Simonelli, 2015). Moreover, the different conception of emotions, the absence in China of a religious tradition and of a guilty conscience and the achievement of results by all means might create further divergences between parties (Simonelli, 2015). The distinction in values can significantly influence employees' attitude towards their job. As some managers of MNEs operating in China explains, Chinese workers and executives are not conscientious, proactive and creative as Westerners (Weldon & Vanhonacker, 1999). They normally ignore problems, because they believe solution should be found simply by looking at precedents or by government institutions. The depicted job approach can be explained by the strong collectivistic orientation of the Chinese culture: as employees tend to share responsibilities within the organization, it is uncommon for a single person to be responsible for a task or lead other workers (Pukthuanthong & Walker, 2007). According to the study carried out by Pukthuanthong and Walker on the subject, this behavior entails that negotiations and communications with the Chinese counterpart will rarely happen on a one-on-one basis, but rather with a group of individuals who share responsibility for a specific activity. In addition, as previously proved by Ueno, Sekaran and Earley, the same researchers have underlined that if a Chinese person is taken out of the group and is asked to work alone, his performance drastically declines.

Another factor worth pointing out is that dissemination of information regarding itself to outsiders is not typical for a Chinese company. All relevant communications are privately held and usually travel only in the organizational structure and are rarely disclosed outside the entity, as external parties and data received from them are highly suspected because they are often incomplete (Chang & Jen, 2001; Staley, 2015). Under these circumstances, it is particularly laborious and onerous for a MNE to collect accurate and reliable information concerning the potential partners and the domestic business environment and, consequently, evaluate the risk of the investment.

To worsen the situation, some Western managers interviewed by Chang and Jen have affirmed that "Chinese managers often just said yes – that they understood a problem – when they did not.

They would procrastinate [the resolution] until it is too late to solve the problem” (Chang & Jen, 2001, p. 48). The blank agreement without any contradiction of the partner is a typical custom of most of the Asian countries. According to some researchers, this behavior is closely related to the fear of losing face<sup>30</sup>, which can negatively affect the reputation and the image of the Chinese company and consequently the success of any of its future initiatives, and the strong social hierarchy linked to the Confucian tradition, which is based on the respect of the elders to maintain collective harmony<sup>31</sup>. From a Western perspective, his sort of conduct not only creates misunderstandings and disagreements between partners in the future, but also may highly influence venture’s performance.

A further element that cause divergence among partners is Guanxi. Defined as the exploitation of connections within and outside the firm in order to obtain favors (Luo, 1998; Pukthuanthong & Walker, 2007), Chinese businessmen attach great importance to this societal structure. Specifically, it binds Chinese companies into a wide social and business network, in which they use their personal contacts firstly to accomplish their goals and interests, rather than depending on lacking justice, law and bureaucracy, and secondly to reach harmony with and within the organization (Luo, 1998; Pukthuanthong & Walker, 2007; Chang & Jen, 2001). From a business point of view, these connections are essential when operating in China, because a good guanxi network (especially with branches of the government) might help a MNE to acquire production factors, to increase contributions to the value chain, to develop good relations with political institutions and to expand the market presence (Luo, 1998). However, the development and maintenance of guanxi is a complicated social investment process driven by unwritten social rules that foreign firms sometimes do not fully understand, because, as previously stated, unlike the Chinese partner, Western investors never pursue harmony and good personal relationships as business goals. If foreigners do not entirely grasp it, it is likely they build relations with unsuitable and wrong partners and, consequently, fail to be successful in the country (Luo, 1998).

At this point, after an exhaustive evaluation of MNEs difficulties relating to cultural and

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<sup>30</sup> Face (面子) can be described as the positive social image of an individual in the society (Christensen, 2013). It is easy to infer that this concept is closely related to reputation, dignity and prestige. In their entire life, Chinese people attach fundamental importance to “save their face” and try not to “lose” it. Saving face (顾面子) means preserving the image or integrity in the community. On the contrary, losing face (丢脸 or 失面子) means that the reputation of a person has been questioned, because the person disrupts the harmony of the society, which is considered one of the fundamental principles of Chinese collective mentality (Christensen, 2013). Maintaining face is extremely important when Chinese firms negotiate, because losing face can lead to catastrophic consequences, such as less trust from other companies, reduction of guanxi and damage to the company’s profitability.

<sup>31</sup> Being one of the pillars of Confucianism, harmony (和谐) has always played a key role in the Chinese society. Defined as a situation of peace, happiness and agreement, it can be achieved through the right balance of communication, ideology and social structures (Müller, 2015). Living in harmony allows to not only improve relations and reach business success, but also, in a broad sense, to stabilize the Chinese nation, in which all the 56 ethnic groups are unified and live peacefully together (Müller, 2015).

business approach differences, it is natural to wonder how they can exactly overcome the above-described obstacles. The answer is simple: both enterprises should gradually take steps to assimilate and understand the presuppositions upon which the partner bases its way of thinking (Chang & Jen, 2001). In other words, learning is the essential tool for foreign investors not only to deeply comprehend Chinese culture, but also to broaden their knowledge about local businessmen's negotiation style. Scholars have demonstrated that through the accumulation of experience, companies familiarize more with the foreign market, reducing risks and costs. Specifically, MNEs should focus on understanding the vision of the local partner and authorities, not to get what they want (that probably it will be never obtained), but to create a context of respect, favorable to the negotiation (Simonelli, 2015). On the matter, Pukthuanthong & Walker suggest to increase the open communication and understanding among the heads of the corporation, management and local employees. However, as far as the dissemination of information is concerned, if on the one hand some researchers affirm the necessity to create an authentic relationship based on trust with the partner in order to minimize any opportunist intention of the counterpart and create a safer environment to invest resources and share more complete information (Staley, 2015), on the other hand another group of researchers recommend MNEs to obtain data on their own; in this way, they are sure to collect accurate and reliable data since parties are reluctant to share the most important information about themselves, although it requires a considerable amount of time and effort (Chang & Jen, 2001).

In light of the elucidation, it is fundamental to describe how Brembo dealt with the issue. As largely discussed in the previous chapter, the road to success in China for the Italian company was meandering to venture forth. In this regard, Mr. Simonelli has explained that in spite of the great deal of international experience obtained through worldwide partnerships and the awareness of the high divergence between the two cultures before the entrance in the Chinese market, the firm had quite a few problems to overcome the initial struggles, due to the poor knowledge about local specificities. The difficulties encountered are exemplified by the little prosperity of its first operations in the country. In response to the disappointing results, the Group decided to study carefully the domestic cultural context. The multi-year study includes researches about local history and traditions, collection of other firms' experiences, participation in events regarding China and inquiries to Italian and Chinese governmental or cultural institutions that promote cooperation (Simonelli, 2017). Once Brembo gained sufficient knowledge about the cultural framework, it has realized that the keys to success lies on the adoption of a mentality similar to the Chinese one and the continuous interaction with the territory (Simonelli, 2017). In fact, a direct collaboration with domestic players (partners and local authorities) allows to the MNE not only to put into practice the acquired knowledge, but also to create a close relationship at an individual level through the building of mutual trust with them and

to exploit their guanxi network (Staley, 2015). With this in mind, in 2007 Brembo has adopted a brand-new business model, in the attempt to meet better counterparts' requests and, at the same time, become one of the key player of the market (Simonelli, 2017). However, as some managers, including Bracco and Vibram executives to name a few, clarified during the forum "Storie di successo italiane" organized by Fondazione Italia Cina, fostering an approach in line with the other party's attitude does not mean to overshadow completely the already mentioned "Italianness", because it is the Italian culture with its innovative and sophisticated outlook that contributes to the uniqueness and excellence of the national brands worldwide. Since its foundation, Brembo has indeed acknowledged the importance of the "Made in Italy" and its relative added-values to compete with local automakers, since it is unluckily that the technologically back-warded Chinese companies will be able to develop these qualities in the coming years. In conclusion, the Italian firm tries to adapt itself to the local context and routines and find the right mix between the Chinese and the Italian culture to overcome problems originated from cultural distance. The analysis has demonstrated that only after the fully comprehension of China, the Group could finally achieve the long-awaited booming growth.

### **3.2 Development of a successful investment**

According to numerous scholars, which include Weldon, Vanhonacker, Chang and Jen to name a few, the development of a prolific and favorable venture is probably one of the major challenges a foreign investor has to face in China. Other than the already described cultural distance, the main obstacles encountered by Western businessmen after the establishment of a venture are the lack of knowledge about Chinese market, the choice of the ideal Chinese partner, the management of local human resources and the supervision of the counterpart. The following sections closely examine the listed issues and their possible solutions.

#### **3.2.1 Chinese market knowledge**

In order to establish a successful investment in the target market, a MNE has to gain information not only about the domestic culture and traditions, but also should obtain data concerning local policies, operational conditions, market situation, competitors and clients' needs and tastes (Luo, 1998). More specifically, Carlson refers to it as "the present and future demand and supply, to competition and to channels for distribution, to payment conditions and the transferability of money, and those things vary from country to country and from time to time" (Carlson, 1974). The gather of complete information about the host country is essential, since it allows foreign firms to make subjective judgements and evaluate the market risk and the profitability of the entrance. In particular, Johanson and Vahlne have demonstrated that "the better the knowledge about a market, the more valuable are the resources and the stronger is the commitment to the market" (Johanson & Vahlne,



1977, pp.28). In other words, to be successful in a foreign market, market knowledge is fundamental.

Firstly, a foreign company has to evaluate the economic and industrial situation of the target country, analyzing both macroeconomic indicators, such as inflation rate, growth in GDP, debt level, currency stability, and industry factors, like the availability of supplier networks and the reliability of suppliers (Chang & Jen, 2001). Then it must study the current and past market conditions, focusing on local supply and demand, materials, labor market and competition. Lastly, the firm has to consider the institutional factors affecting the target industry; in particular, it should investigate the existence of regulatory obstacles and potential malevolence of government functionaries (Pukthuanthong & Walker, 2007). Scholars have proved that the non-conduction of this economic research might lead the foreign enterprise not to fully seize Chinese opportunities, investing for instance in an underdeveloped area or offering products that may not attract Chinese customers.

To gather more information, multinationals can also rely on the experience gained from competitors and companies from different fields operating in the market. This behavior can be described as bandwagon effect, namely “a benefit that a person enjoys as a result of others’ doing the same thing that he or she does” (Rohlf, 2003, pp. 2). To put it differently, potential entrants look at pioneers’ modus operandi: if they work well in the Chinese market, you follow their footsteps and tactics, carefully observing their activities and imitating them. Through the emulation, the foreign company can easily and rapidly understand the most adequate business model to stay competitive and reduce uncertainty, potential risks and failures (Beldeerbos, Van Olfen & Zou, 2011; Liu, 2009).

In addition to the observance of the concurrence, enterprises can also collaborate with international and local entities. To gain a better knowledge of the Chinese market, Italian firms can rely not only on the assistance of institutional bodies, such as the embassy, consulates, chamber of commerce located in China and ICE<sup>32</sup>, but also on private associations, like Fondazione Italia Cina, a Milan based organization which goal is to improve the image and presence of Italy in China. Specifically, it promotes Italian business activities providing training courses to broad knowledge about China, supporting companies’ relationships with Italian and Chinese authorities, facilitating the flow of people, capital, goods and services between the two countries, and organizing cultural, economic and scientific events to strengthen business and cultural relations (Fondazione Italia Cina.com, 2018; Brembo 2017). During the previously mentioned Forum at Kilometro Rosso, many participants admitted they have been working with the organization for many years, specifying that the association always assists them through continuous training about how to do business in China

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<sup>32</sup> The Italian Trade and Investment Agency is a Governmental organization that supports the business development of Italian firms abroad and promotes the attraction of FDI in Italy (ice.gov.it, 2018).

and accurate data concerning market tendencies, business opportunities and potential costs and risks (Mutinelli, 2016).

Aiming at gaining precious market knowledge, Brembo has adopted a method similar to the cultural model depicted in the previous section. At first, it studied the Chinese economic and industrial indicators through the analyses of sectorial reports and economic data published by international organizations, inquiries to governmental Chinese and Italian entities and confrontations with other MNEs and key players of the automotive industry. As regards the supportive organizations, Brembo as well works together with Fondazione Italia Cina (Brembo, 2017). It is not unusual for the Group's top managers to participate in activities coordinated by the Italian organism; actually, the president Mr. Bombassei himself is a member of the association's Board of Directors (Fondazione Italia Cina, 2018). In addition, the study tried to ponder the strengths and weaknesses of concurrence and the compliance of the possible achievements in the market with corporative strategy. Once the company gathers all the necessary information, it can evaluate the investment risk. After the meticulous research and numerous discussions among the president, the Board of Directors and strategic managers, the company deemed the investment in China profitable, as it allows an additional expansion of the Group's brands and activities worldwide and a further step to the sectorial leadership.

### **3.2.2 Selection of successful Chinese partner**

Once a MNE thoroughly examines the target country's background, it is essential for it to identify the right partner, because its selection has a crucial impact on the success of the investment, in particular on its knowledge, resources, skills and structure. However, finding the appropriate counterpart in China can be critical, not only due to the saturation of firms willing to work with foreign companies, but also, as already mentioned before, collaboration might be difficult if the Chinese partner does not share the same investment objectives of the foreign investor.

As the goal of a venture is to create synergy and value through strategic symmetries and the share of information and risks (Hu & Chen, 1996; Luo, 1998), the ideal partner should possess compatible goals, complementary resources, assets, routines and skills, cooperative culture and share risks similar to the foreign investor's one (Luo, 1998; Simonelli 2017). In other words, it must have unique capabilities counterbalancing the Western investor's abilities, as the less they share similar capacities, the closer is their fit (Staley, 2015). Moreover, the choice should also be consistent with the foreign firm's corporative strategy and the objectives it wants to pursue from the collaboration.

When selecting a partner, a multinational should firstly determine the strategic fit, namely the

degree of compatibility, and the capabilities fit, the contribution that the counterpart can make, with the Chinese partner. If both parties have a high commitment in the alliance, then the fit is very strong and the collaboration is successful, since the effort of partners are balanced (Lasserre, 2012). To ascertain the affinity between enterprises, a MNE has to concentrate on obtaining as much information as possible about the Chinese company. In Western countries, enterprises usually rely on business plans to evaluate the counterpart capabilities and the risk of investment. However, since Chinese firms' information disclosure is usually minimum, foreign companies may face some difficulties to collect reliable data from the partner itself (Pukthuanthong & Walker, 2007). For this reason, they have no choice but to gather material from other sources, for instance, through a copy of partner's brochure or its business license, site visits, during which they observe employee attitudes and talk to managers, or inquiries to chambers of commerce and specialized market and clients research companies (Luo, 1998).

To support managers in their investment decision, Luo listed some criteria that may help firms to determine strategic and capabilities fit. The parameters are three:

- Tasks and operations, linked to the historical and strategic attributes of the partner, which include marketing competence, relationship building, market and geographical position, industrial experience, reputation, strategic orientation and corporate image.
- Partnership or cooperation, which involves counterpart's organizational leadership and rank, ownership type, learning ability, foreign experience and human resources skills.
- Cash flow or capital structure, related to finance and accounting, which cover profitability, liquidity, leverage and asset management.

In his research, Luo has pointed out that the absence of one of the criteria might lead the collaboration to failure, because the collaboration might be unstable, unprofitable or unsustainable (Luo, 1998).

Having said that, it is interesting to analyze Brembo's methodology for the identification of the proper business partner. For the company, being able to form locally the right alliances is the backbone of its strategy in China, as the support of domestic partners that know well how to operate in China can be trump card to make the investment extremely successful. From this perspective, it is clear how the Italian firm attributes great importance to the initial venture deals in Nanjing and Beijing. Before individuate Asimco and Yuejin Motor Group as ideal partners, it searched enterprises with high-quality product standards and high intellectual property protection (Mutinelli, 2016). However, no Chinese company matches with these features, mainly due of the lack of collaborative abilities, R&D activities and managerial skills and the scarce development of the high-end segment, still

considered a niche market in China. Consequently, the Group looked for firms that operate in the upper-middle sector and desirous to work in the premium one (Mutinelli, 2016). Once identified the potential partners, it collected data by looking at their websites and market activities, consulted specialized research companies, asked for support to Italian and Chinese chambers of commerce and market organizations and, above all, visited their headquarters and production plants to verify in person their manufacturing capabilities, their distribution network, managers' business and negotiation approach and possible strategic affinity. In this context, the identification of Asimco as the ideal firm for the M&A is the result of long months of inquiries to research companies and, above all, of continuous visits to the entity headquarters to observe at first hand the *modus operandi* of the Chinese firm (Simonelli, 2017).

### **3.2.3 Human resources training**

Human resources training is usually carried out by MNEs to facilitate the transfer of knowledge to the host country and, consequently, to maintain their competitiveness in the domestic market. However, in China it can become a further obstacle to venture success, since training is a complex process which implies social settings and cultural differences (Wang, Fan, Aybar & Ficici, 2013; Staley, 2015). As previously stated, Chinese workers' attitude towards job differs considerably from the approach of Western employees. In line with the results of De Luca and Vianelli's study concerning the biggest difficulties perceived by Italian firms, Lin and Lin have proved that the majority of foreign managers consider Chinese employees unqualified and uneducated (Lin & Lin, 2008). In this regard, Chang and Jen have explained that, in a socialist society, people work collectively to accomplish their everyday tasks. Consequently, from a Western point of view, the Chinese approach is drastically opposed to European and American workers' values, based on the ability to operate and think autonomously and the healthy competition between colleagues, which might lead to personal advancement. Furthermore, Chinese employees are not required to overwork to earn more money and live properly, as monetary incentives are incompatible with the socialist ideology and all the necessities are provided for them by the state system (Chang & Jen, 2001; Cooke, 2013). Based on the above, it is clear that the level of workmanship and the quality of work are aspects often underestimated by Chinese people, as they only aim at the completion of their job rather than the development of their professional skills (Chang & Jen, 2001; Weldon & Vanhonacker, 1999). For this reason, they usually do not anticipate difficulties, have a very little initiative and responsibility and are not open to learn new specific skills.

Taking the cue from the study conducted by Weldon and Vanhonacker about the biggest challenges for managers in China, MNEs have to consider the following factors to manage human

resources in the best possible way and to reduce to minimum potential problems:

- Hiring local people desirous to work and with potential to succeed.
- Mentoring, namely providing cross-cultural training and learning experiences through on-the-job training, active learning and management and coaching programs in order to develop specific skills of employees and future managers.
- Retaining good employees after the training in order to avoid they go to other companies and disseminate knowledge. To persuade the best employees to stay in the venture, the foreign firm can offer some benefits or monetary incentives.
- Managing work relationships through daily interactions to minimize conflicts and misunderstandings arising from cultural differences (Weldon & Vanhonacker, 1999).

Through the application of these factors, the MNE can solve the issue, because it incentivizes the creation of a sense of belonging to a corporate culture that highly stimulate employees (Chang & Jen, 2001). Several empirical studies have proved the validity of this method, as most of firms adopting it have managed to overcome the initial difficulties, even in China.

Among companies that embrace it, Brembo is surely one of the most famous examples. Since the beginning, the Group attaches great importance to human resources, because they are considered the core of its success. Workers are part of a one big team that shares the passion for cars and motor races and does its best to create state-of-the-art brakes in sense of performance and reliability (Mutinelli, 2016). In order to reach this objective, training plays a fundamental role, because through coaching processes Brembo can not only develop specific skills of engineers, testers and designers and raise new future braking system specialists and professionals in the sector, but also stimulate them to improve the quality and the performance of products (Brembo, 2016). Continuous communication is another key factor of Brembo's success in the human resources management. In fact, the constant contact with Chinese employees allowed the company not only to transfer all the specific knowledge to workers about how to assemble a high-quality brake, but also to make the various departments efficiently operate with each other (Brembo, 2011).

Brembo's human resources training and development usually follow a precise procedure. Firstly, the firm hires Chinese managers who stood out in their studies and previous jobs in the automotive sector, then sends a small team of Italian managers in China to instruct them through induction programs or intensive cross-cultural and on-the-job coaching process in order to develop their managerial skills, make them feel responsible for their future leading roles and minimize any potential problem related to cultural differences. At the beginning of the training, the number of Italian managers equals to the number of Chinese executives, since in this phase local managers still

have a few knowledge about the firm business approach and production cycle. Over time, the Italian presence in the Chinese plants gradually reduces, making the way to Chinese people in the leading positions, as they have a higher familiarity with the local market and bureaucracy. Lastly, Chinese managers teach and train other workers, because, as previously demonstrated by market experts, the holding of people accustomed to firm practices will significantly facilitate and accelerate the assimilation of the new knowledge to other employees (Brembo, 2011; Staley, 2015). Due to Chinese workers' lack of expertise, the illustrated procedure requires a large quantity of time and effort, since advance industrial production is difficult to transfer (Simonelli, 2017). However, as Mr. Simonelli has stated, through the hiring of top talents and the promotion of professional development using compensation systems, career options and training opportunities, Brembo is sure to overcome cultural barriers and Italianize the Chinese attitude towards work.

#### **3.2.3.4 Supervision and Monitoring of the Chinese counterpart**

Once the investment has been made, the foreign firm needs to stay informed about the affiliate's performance through ordinary monitoring in order to prevent decision-making problems among partners and be certain that the entity activities comply with the contract (Pukthuanthong & Walker, 2007; Deng, 2001). As many Western monitoring procedures are worthless in China mainly due to cultural differences, MNEs have no alternative but to establish good personal relationships and make compromises with the Chinese executives. A healthy and respectful relationship with the partner is a strategic key of success, because, as already seen in the human resources case, working side by side can help foreign firms to gain trust of local managers, avoid misunderstandings, prevent leakage of knowledge and increase the production and the quantity of shared information. The supervision of the investment can be particularly critical in case of EJVs, since this sort of entry mode expects a wider Chinese presence in the venture. In this case, negotiation are the best tool to achieve a higher degree of control. During this phase, multinationals have to discuss in detail with the counterpart the venture governance and its ownership structure (Simonelli, 2017). If the foreign firm is able to get a high number of seats in the Board of Directors or position its managers in key roles through the contract<sup>33</sup>, it is easier for it not only to monitor directly the counterpart operations and JV daily activities, but also to manage better uncertainty and reduce potential risks of the host country, consequently improving venture's performance from its Western perspective (Yan, 1999; Staley, 2015).

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<sup>33</sup> In this context, it is important to remember to the reader that, as already largely explained in the previous chapter, due to Chinese legislation, in particular to the Guidance Catalogue for the Foreign Investments, the dominant control is not achievable for foreign parties in some industries, as they can only enter the market as a minor shareholder or through a 50-50 ownership. It follows that the depicted majority in the Board is not attainable from every firm.

In Brembo case, the figure of the China Technical Center Manager has been established precisely for the country. The role is usually assumed by an Italian manager, who monitors the Chinese affiliates together with a little group of Italians. Specifically, he supervises the design activities and testing proves to control the Chinese part operates in compliance with Brembo high quality requirements and values and integrate domestic production procedures to Brembo's standards through a gradual and by area of competence coalescence, like in the case of Asimco (Brembo, 2017). Moreover, the team daily works and interacts with local managers to observe if they do not spread information about the firm's capability advantages. From the governance structure perspective, the presidents and CEO of Brembo sites in China are usually Italian or European (usually a single person holds both offices), whereas their closed collaborators are both Italian and Chinese; managers are mostly Chinese, even if the roles concerning know-how are always in the hands of an Italian<sup>34</sup> (Brembo, 2017). In relation to EJV negotiations and governance, the Group conducted long discussions with partners to secure a minimum percentage of control for both BNBS and Brembo China, always taking into consideration the Chinese cultural environment and business peculiarities. However, to the increase of knowledge about China in the years, further negotiations were carried on to acquire more control of the Nanjing-based venture, guaranteeing consequently a better monitoring of Donghua activities.

### **3.3 Protection of intellectual property**

For a manufacturing business, knowledge is a fundamental element, because it grants to the firm its distinctive capabilities and competitive advantage. Nowadays, more and more Western companies are extending their know-how in China through on-the-job training, in order to teach specific skills to Chinese employees, or technology transfers to affiliates to best utilize their precious resources (Brunn & Bennet, 2002). The transmit may concern codifiable or explicit parts, namely factors easy to communicate, store and distribute owing to the tangibility of their origin, such as machinery, plants and workers, and non-codifiable elements or tacit knowledge, unique to the individual entity and complicated to handle due to its intangibility, like operational practices, R&D activities, routines, skills, copyrights, patents and trademarks (Mutinelli, 1998; Staley, 2015). Through the transfer, the firm not only provides innovation and added-values to the venture, increasing its competitiveness on the market and its investment profitability, but also globalizes its production cycle and benefits from lower costs and more favorable market factors (Brunn & Bennet,

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<sup>34</sup> The current president and CEO of Brembo China is Mr. Stephane Rolland, who collaborates with Mr. Carlo Panzeri (Technical Development Manager), Mr. Fabiano Carminati (Disc Division Technical Directors), Mr. Alessandro Monzani (System Division Technical Director) and Mr. Mario Piccioni (Chied Quality Officer). All other managers are instead Chinese (Ferrari, 2018).

2002).

In the light of the primary function of its competitive advantages in the success of the investment, it is vital for a MNE to protect its intellectual property from any potential dissemination and leakage, otherwise competitors might easily discover its secrets, imitate and counterfeit its products and successfully enter and develop in the market to the detriment of Western firms, which would hurt multinational's sales and seriously damage its business activities and reputation (Walker, 2001). Specifically, past failures of multinationals in China have shown that the main problems lie on the dissemination of knowledge, skills and management practices through labor turnover or if former employees of a foreign company run their own businesses (Wang, Fan, Aybar & Ficici, 2013) and the possibility that the domestic party acts opportunistically: the Chinese party might hold more than one interest in the venture and intentionally sign an agreement with the foreign firm for the sole purpose of obtaining its precious capabilities and to operate at a later time by itself with an already successful modus operandi and products (Chin, Wang & Xin, 2015; Staley, 2015).

In this regard, Chinese authorities have enacted some laws. The first regulation issued on the subject is the 1982 law on the trademarks, concerning the distinctive traits that allow the identification of a brand and its quality (Cavalieri, 2008). The following Patent law in 1984 established the registration of the trademark to protect a company's inventions and ideas. After the Chinese admittance to WTO and TRIPs<sup>35</sup>, Chinese requirements on the issue gradually started to align with international standards (Cavalieri, 2008). The example of this conformity is the renewed Trademark law entered into force in May 2004. The law guarantees good faith in the application for registration and the use of trademark and ratifies that "the registration would not be approved if the name infringes on a prior right or is regarded as a malicious application of an unregistered trademark that has been used by another entity" (Simonelli, 2017).

In spite of the abovementioned system of rules, the measures have not provided sufficient safeguard to the foreign firms so far. To bring some significant data to better argue the lack of the existing rules, in 2015 the Chinese State Intellectual Property Office has declared a 13-percent increase of the number of lawsuits filed to the Beijing Intellectual Property Court, with a total of 24.000 cases. Consequently, the sum of processes heard by Beijing High People's Court has also incremented: between 2009 and 2015, it reached 8000 legal procedures in comparison to the initial 2600 proceedings (Simonelli, 2017). In light of the boost of violations of the last years, ensuring the

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<sup>35</sup> The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs) is the main international agreement that establishes minimum enforceable standards for the protection of intellectual property rights in the attempt to harmonize different national intellectual property systems. Its objective is to balance rights and duties of both producers and users of technological knowledge in order to advantage all parties involved and reduce violations (Walker, 2001).



protection of the competitive advantage is becoming one of the main priorities of multinationals when making investments in China, as the domestic legal framework is still vague and uncertain in some parts and law enforcement is extremely weak and non-transparent (Brunn & Bennet, 2002; Pukthuanthong & Walker, 2007).

At this point, it is natural for the reader to wonder which the major obstacle encountered by MNEs are. As claimed by managers, Chinese authorities' tolerance of copyright and trademark infringement is the main issue. Many researchers have pointed out that the indulgence originates from a precept of Confucius that incites the replication of the results of past intellectual efforts<sup>36</sup> (Ghemawat, 2001). According to the great scholar, its wisdom does not come from its personal abilities, but rather from the simple repurposing of old writers' thoughts, considered superior to contemporary artists' concepts. As in the past Confucius harks back to ancients, in the same way today's Chinese firms counterfeit foreign products, believed to be more advanced and better performing. In the light of this cultural premise, it is understandable why nowadays nobody in China claims to other people the usage of his own ideas. Trademark copying is not judged as an illegal appropriation and imitation of foreign firms' goods and capabilities, but rather a common practice to be profitable in the shortest period through the immediate offer of top products without spending a large sum of money (Vaver, 2006).

In order to defend itself against counterfeit or any potential leakage and dissemination, the MNE has to keep safe its core technology. The protection is possible through constant monitor of the market, in particular of competitors' activities, assessment of the impact of strategies to minimize potential future losses<sup>37</sup>, comprehension of factors that may affect the capacity of the partner to absorb new technology, loyalty, trust and the increase of bargaining power, namely the ability of the firm to exert influence over the other party in the negotiation, contract, actions and venture's performance to achieve a favorable deal and its strategic goals (Collins, 2016; Weldon & Vanhonacker, 1999; Staley, 2015). To facilitate multinationals' defense of know-how, the government should as well put effort into guaranteeing a more effective and transparent legal system through a greater adherence to

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<sup>36</sup> The complete Confucius' precept, which can be found in the Analects, 7.1, is “述而不作，信而好古，窃比于我老彭” (Zhang, 2018), translated into English as “I transmit rather than create; I believe in and love the Ancients; I venture to compare myself to our old Peng” (Vaver, 2006; Ghemawat, 2001). The quote implies that the capacities of the Chinese scholar does not lies in innovation or its personal capabilities, but rather in his ability to interpret the wisdom of the ancients better than its contemporaries and to convey more attractively past artists' messages (Vaver, 2006).

<sup>37</sup> A common practice to minimize losses is the integration of the confidentiality clause into the contract (Weldon & Vanhonacker, 1999). Confidentiality concerns the transfer of information only for the purposes of the negotiation and the agreement. Through the clause, parties are obliged not to spread facts and data regarding the counterpart and the points negotiated, even after the expiration of the contract. The obligation is also implemented in Articles 42 and 43 of the Chinese Contract Law, which state the duty to negotiate in good faith and maintain business secrets (Cavaliere, 2008).

international standards, as WTO, GATT and TRIPs requirements are not enough to protect the intellectual property, mainly due to administrative and judiciary employees' technical backwardness (Cavalieri, 2008).

Recently, the phenomenon of counterfeit has also affected Brembo. Even though the Group has undertaken numerous initiatives to protect its core business, imitations of the company's products can be found in all Far Eastern countries, in particular in Indonesia, Taiwan and China (Stanley, 2016). To track down non-original goods and any illegal counterfeit activity or fraud, Brembo conducts a series of researches in the domestic market, with particular attention to Internet (Brembo, 2017; Mutinelli, 2016). Through the constant monitoring of the net, hundreds of webpages selling unauthorized brakes and components with the Group trademark have been discovered (Brembo, 2017, Stanley, 2016). To make a striking example, the famous Chinese e-commerce website Alibaba resells a plastic cover similar to Brembo caliper in red color and shape for just two euros (Stanley, 2016). Once the firm identifies the unofficial merchandise, it reports the copies to specialized tribunals. In this way, more than 12.000 offers of unofficial goods worth an estimated one million of euro were taken out from the market in 2016, several lawsuits have been won and laboratories and shops selling illegal brakes were closed (Brembo, 2017; Stanley, 2016).

The removal of the counterfeit products imitating Brembo's brakes is a necessity for the Group, not only because they do not meet international safety requirements, as they are manufactured using not controlled materials, but also are inadequately tested (Brembo, 2017). Therefore, the Italian firm feels compelled to limit as much as possible the sale of copies in order to reduce risks, assure customers of a safer drive, and not to damage the brand name and the company reputation (Mutinelli, 2016). In other words, guaranteeing products authenticity has become an interest of primary importance. In this regard, the main instrument developed by the company to ensure the originality of its products is the introduction of an anti-fraud card, which allows customers to check if Brembo has manufactured the purchased goods (Brembo, 2017). The card, which can be found inside the packing of the product, has an identification code to be entered on the website [www.original.brembo.com](http://www.original.brembo.com), which will help the customer to verify the authenticity. In case of the discovery of a non-original product, the client is requested to enter further information to allow the company to start investigations.

### **3.4 Working with Chinese government and authorities**

Before investing in China, Western firms should analyze the political situation and risk of the target country. Aside from the stability of the political regime, they have to pay particular attention to the public administration's attitude towards foreign investors (Chang & Jen, 2001). According to

the already mentioned report drawn up by de Luca and Vianelli, in spite of the increased number of FDI, foreign enterprises not only do not receive enough governmental support in their activities in China, but also encounter numerous regulatory constraints, which significantly obstacle their investment profitability and operations in the market (De Luca & Vianelli, 2011).

From a managerial point of view, the governmental and legal apparatus is extremely lacking. As in the case of protection of intellectual property, the reasons of the inadequacy mainly lie on the confusion and low enforcement of Chinese law, the insufficient commercial code and the weak court system (Pukthuanthong & Walker, 2007). Specifically, some managers at the Fondazione Italia Cina forum have underlined how the slowness of local bureaucracy makes the legal system unsustainable for international trade and investments, because it takes years to win the approval of the local institutions and obtain a business license.

Other relevant factors influencing MNEs' operations in China are the ubiquity and the high intervention of Chinese authorities in business affairs (Yan, 1999). Aside from the suppress of dissenting voices and control information, institutions limit multinationals' opportunities through the establishment of political and regulatory barriers, such as excessive trade tariffs, trade quotas and restriction on FDIs, or the possess of the final word on key decisions, in particular on investment authorizations (Lin & Lin, 2008; Ghemawat, 2001; Simonelli, 2015). Sometimes its participation in business activities is so interfering that it is difficult for foreign managers to understand the boundary between public and private sector (Simonelli, 2015). Through blocks and its constant presence, the government aims at exploiting the competition among foreign companies to acquire precious resources and knowledge, in the form of technology and managerial expertise, at the least cost.

As reported by many Western managers, the described state insufficiency and omnipresence are clearly visible when dealing with contributions, disputes, termination of contracts, partner roles, resource requirements and valuation of intangibles (Simonelli, 2017). On these subjects, the Chinese judiciary normally assists only domestic firms, in particular the state-owned one, in the form of subsidies, guanxi favors and preferential treatments in order to protect them from international concurrence (Ghemawat, 2001). It follows that foreign investors are in a disadvantaged position and often treated differently to local enterprises, because the absence of supportive institutions, together with the inadequate legal framework and the state intervention, open the doors to government corruption, lack of quality services, weak confidentiality and hindering enforcement, all elements in contrast with Western conditions of equal treatment and non-discrimination (Ghemawat, 2001). Fortunately, the scenario is slowly changing. Once China got over the political isolation of the past and the complicated relationships with the neighboring countries, it has started a gradual process of

global integration, which is bringing China to align with international standards and practices. The results of the transaction are already visible through the recent development of a system of commercial dispute resolution (where a third party usually through arbitration takes a binding decision), the possibility for parties to choose the applicable substantive law, the assurance of confidentiality even after the termination of the contract and a higher presence of well-prepared and speaking English officials in the institutional staff (Lin & Lin, 2008; Weldon & Vanhonacker, 1999; Simonelli, 2015). However, there is still a very long way to improve the general situation, as global openness itself is not enough to guarantee the respect of laws and foreigner investors still need to face high costs to operate in the uncertain Chinese market.

In case of Brembo, Mr. Simonelli, during his lesson hold at Ca' Foscari University in Venice, has stressed how problematic is sometimes for the Group to work with local institutions. Due to the lacking legal system and the numerous constraints, the obtaining of licenses is extremely slow (it took almost two years to get the authorization for the construction of the production plant in Nanjing and a year for its enlargement), some contract clauses related to the cultural sphere are usually arduous to be implemented by local entities, the access to strategic resources usually in the hands of the Chinese partner is very difficult, intellectual property rights are not sufficiently protected and foreign automakers are prevented to set up a WFOE in the country (Simonelli, 2017; Brembo, 2017).

In such an adverse environment, MNEs do everything possible to protect themselves from any potential bureaucratic inadequacy. As reported by numerous managers, the best self-defense strategy is the establishment of a long and positive relation with government. Only through a direct strategic alliance with state affiliates, a multinational can survive in the Chinese market. Based on this idea, Brembo has increased the collaboration with them, in particular in the managerial and technological fields, choosing partners directly controlled by the government or with connections with its branches. From this perspective, just think the merger of Asimco, a state-owned society, as a strategic investment to deepen the cooperation with the institutional apparatus and ease the approval process of the investment (Mutinelli, 2016; Simonelli, 2017). Besides, as regards the defense from weak enforcement of the contracts, Brembo drafts clauses which are as complete and detailed as possible, incorporating crucial management issues and the majority of eventualities on the documents, to reduce future potential risks and makes some legally relevant facts, such as modification and termination of contracts, occur outside China.

## CONCLUSIONS

The three chapters that constitute the body of this paper have analyzed the potential entry modes in China of a MNE at a firm-specific level. Throughout the whole paper, the selection of the most suitable method of entrance has been considered a key factor of the success or the failure of an investment in China, as it is closely related to the profitability, costs, risk, commitment and protection of the capability advantages of a firm.

The first chapter has firstly provided a detailed presentation of the automotive industry and then has introduced Brembo S.p.A., the case study's company. In the first part, the focus of our attention is on the global, the Chinese and the brake system market. Through a detailed explanation, it has been showed that the worldwide sector is constantly growing, always reaching new records. The current market is characterized by the phenomenon of "Co-ompetition" among key players, which leads automakers to collaborate through JVs and M&A operations to keep up with today's sectorial complexity and increased concurrence. It has also been shed light on some remarkable tendencies of the last years, in particular on the increase of investments in innovation, high-tech and R&D activities. On the issue, large sums of money in electrified vehicles and autonomous driving have been spent. However, the pursue of innovation can be sometimes critical due to the lack of digital activities and eco-friendly natural resources that substitute oil-based fuels. In line with international trends, the Chinese market is as well experiencing an unprecedented growth, becoming one of the largest markets in terms of production and sales, mainly because of the increase of national GDP and the burgeoning middle class. After having provided some data about the Chinese automotive trade and an illustration of the main domestic firms operating in the sector, it has been underlined that foreign companies are moving their R&D centers in the country in order to accelerate the product development and to adapt better their products to the local demand. In conformity with global tendencies, electric and new energy vehicles have become a thriving market in China as well. Lastly, the brake system sector is also prospering, in all geographical areas and both in the OEM market and AM. Consistent with the general trends of the industry, the main producers are largely investing in R&D activities and safety, trying to develop eco-friendly, reliable and robust braking systems. On the subject, a significant increase of investments in sophisticated electronic and regenerative brake systems can be observed. In the second part of the chapter, an accurate description of Brembo has been provided. After the initial presentation of the author of such a successful enterprise, Mr. Alberto Bombassei, and the company history, subdivided in three paragraphs that represent the major turning

points of its success, the main values of the company, which are innovation, safety, design and aesthetics, have been illustrated; the presentation also includes a brief explanation of Kilometro Rosso, the company's "center of excellence" of R&D activities. Then, the Group sophisticated products and brands, synonym of top quality and high performance, has been illustrated, with a special focus on the advanced technologies introduced by the company. Throughout the whole presentation, Brembo has been deemed as a pocket-sized multinational, a relatively small-medium enterprise that operates like a MNE. The consideration was adopted with the aim to demonstrate how the Italian firm stands out for its great managerial abilities, allowing it to distinguish itself in the saturated sectorial market and keep up the pace with competitive and powerful global multinationals.

In the second chapter, the thesis has provided a detailed framework of the selection of the proper entry modes by MNEs in China at a firm-specific level. Firstly, it has been analyzed the main reasons that lead a company to enter the country, which are the progressive economic liberation, the increased wealth of the Chinese population, the possibility to expand the market presence, the acquisition of low-cost resources and the keeping up with the concurrence. Then, the issue of entry modes has been widely discussed. Before investing in a country, MNEs usually rely on some theoretical models to identify the most suited modality of entrance. On the issue, the paper lingers on two models used for a firm-specific analysis, namely the Uppsala and the Driscoll & Paliwoda models. Based on learning and incremental commitment, both studies require a careful examination of host country's characteristics, industry-specific and firm-specific factors to evaluate the effects of every entry mode on control, risk and commitment of the investment. After the illustration of the models, the paper has described five of the most selected modalities of entrance pursuable by firms, which are export, EJV, greenfield, M&A and brownfield. Specifically, it has been demonstrated that the choice of export as mode of entry is dictated by the necessity of the company lacking of experience to penetrate in a new and unknown market and to present its activities and brands to domestic customers at the least cost and risk. The pick of an EJV instead allows the firm not only to reduce uncertainty through synergy and the exploitation of the counterpart's market experience and distribution network, but also to gain a higher control of its investment. On the contrary, a M&A is more likely to be opted to eliminate domestic concurrence and to obtain immediately complementary intangible assets, new strategic clients, extra resources and industrial capacities difficult to get by itself. Moreover, a firm might also choose this operation to integrate vertically and achieve consequently economy of scale. Through the selection of a greenfield, the multinational can operate in the target country market at its own pace, limiting transaction costs and preventing any possible problem originated from cultural distance between home and host market and opportunism (Cheng, 2006). Lastly, a brownfield investment is chosen if the entity aims at operating immediately in the

market, with a high degree of control over the investment but at an inferior cost than an acquisition or a greenfield. The second part of the section has provided a depiction of the most popular modes to enter the Chinese market, which are EJVs with local partners and M&As. As regards the automobile industry, it has been pointed out that joint ventures are the most selected modality, due to the regulations of the Catalogue for the Guidance of Foreign Investment Industries, which obliges all firms operating in the field to enter through local participation.

The last paragraphs of the second chapter have illustrated the entry modes chosen by Brembo to enter China. After a brief explanation of the firm history in the country and its current sites, the selected modalities are the result of the fully compliance of the company business strategy with the Uppsala model. Export was the first option chosen by the enterprise at the beginning of its activities in the country, mainly to acquaint itself with the local market at the least cost and risk. Once understood the domestic economic, political and business environment, the Group started to gradually increase its commitment in China, firstly through the establishment of EJVs and then through direct acquisitions, greenfields and brownfields, which are preferred because they guarantee the full control over local activities, a better protection of the business core and the avoidance of any opportunistic intention of domestic partners. Following this exemplification, a presentation of the main investments made by Brembo has been provided. The five depicted operations allowed the Group to increasingly expand its presence in the Chinese market and become one of the key players of the booming Chinese automotive industry. It is also necessary to stress that their description account all the five entry modes described in the first part of the chapter.

Regardless the mode of entry chosen, the practical entrance and the following development of multinationals' activities in the Chinese market can be a particular critical process. On this subject, the third chapter has explained in detail the major barriers perceived by firms when investing in China. Differences in culture and business approach, the lack of knowledge about the domestic market, the selection and the supervision of the partner, the management of Chinese human resources, the protection of intellectual properties and the relationship with local authorities are the main obstacles incurred by enterprises. For each hurdle, the thesis has offered a detailed explanation. As far as cultural distance is concerned, it is the result of divergences in beliefs, customs, knowledge and values. On the issue, all scholars have agreed that the greater distance, the more different working attitude. It follows that the increase of discrepancies can significantly affect trust and compatibility between partners in the phase of negotiation and development of the business, creating frequent misunderstandings and deadlocks. Specifically, the main cultural obstacles perceived by foreign managers when operating in China are the employees' socialist attitude towards job, the limited

diffusion of internal information, the fear of “loosing face” and the guanxi network. As regards the second issue, it has been proven that firstly, a deep knowledge of the target market allows foreign firms to make subjective judgements and to better evaluate the risk and the profitability of the entrance. Secondly, the selection of the right partner can not only provide multinationals with complementary resources, assets, routines and skills, but also support the better share of risks. From this perspective, its determination should be conducted through a careful analysis of the strategic and the capability fit of the counterpart, evaluating the synergy with the potential partner. Thirdly, the training of human resources might be critical owing to the Chinese workers’ socialist attitude towards job and the low level of workmanship and quality of their work. As local employees are not interested in the development of their professional skills, they have a very little initiative and responsibility and are not open to learn specific skills. Lastly, as the monitoring about the performance of the venture and the partner is concerned, many Western supervision procedures are worthless in China mainly due to cultural differences. For this reason, MNEs have no alternative but to establish good personal relationships and make compromises with the Chinese executives. In relation to the protection of the intellectual property rights, it has been shown that the current Chinese legislation does not provide a sufficient tutelage to foreign investors, in particular in terms of protection of business core (know-how, R&D activities, production routines, patents, trademarks, brands). As the replication of products in China has deep traditional and cultural roots and the alignment to international standards is still weak, MNEs have no choice but to find on their own alternatives to avoid the dissemination and the leakage of their competitive advantages. With reference to the last topic, the constant intervention and the ubiquity of the local government together with the lacking legal apparatus have been proved to highly influence roles, contributions, disputes, termination of contracts, resource requirements and valuation of intangibles between partners. Because of it, many MNEs have experience difficult relationships with domestic authorities.

To overcome all the above-listed problems and be successful in China, it has been highlighted that a company has to do everything possible to fully understand the divergences between the home and host country, carefully studying the Chinese language, culture, traditions and market tendencies and gaining detailed information about the political, economic and financial context. Once understood the local environment, the foreign firm needs to maximize its strategic abilities to modify and adjust the corporate decision-making process to local procedures (Pukthuanthong & Walker, 2007). In this phase, a great deal of patience, an aptitude not to take anything for granted, a satisfactory compromise with partners and a good and authentic relationship with local authorities based on respect and mutual trust are the key factors to be victorious in China. On other words, adaptability and flexibility to domestic context play an essential role to MNEs (Bianchi, 2013; Mutinelli & Rossi, 2016; Chang &



Jen, 2001). Specifically, it has been shown that the continuous negotiation and interaction with the counterpart in respect of its rhythm and the following change of the business model and managerial structure to match with the partner can indeed lead the foreign firm to improve its operative efficiency by reducing its expectations and seizing any opportunity offered by the Chinese market (Mutinelli & Rossi, 2016). Among the MNEs that have adopted the described approach, Brembo is definitely a prime example of the efficacy of this *modus operandi*. The resolution of all the problematic issues and the following success of the Group in the country are the result of the high degree of knowledge of the domestic environment gained over the years, the high capability of adapting its mentality and business approach to a continuously changing economic context and the establishment of close relations with institutional authorities – the whole thing without neglecting its “Italianness” and values.

In light of its strong position and its exponential growth in the Chinese market, the future perspectives of Brembo in the country are extremely positive. On this subject, Mr. Bombassei has affirmed that the Group will continue to invest in China with a strategy similar to the one adopted by SMEs and in compliance with the company’s values and based on R&D and innovative activities, the verticalization of the production and the offer of high-quality and sophisticated brakes (Brembo, 2010). With this in mind, the firm’s investments will not be carried out through EJV’s anymore, but mainly through operations guaranteeing full control. Specifically, M&As and successive brownfields will be chosen in presence of targets that would add further value to Brembo in terms of resources and productivity, as in the case of Asimco, whereas greenfield operations will be opted in case of absence of a suitable partner to be acquired and the necessity to build locally new industrial sites to better extend the production lines (Simonelli, 2017). Furthermore, taking into consideration the reduction of ownership limits announced by the Chinese President Xi Jinping for the next few years, an increased openness of the local market, a more attractive environment for FDI’s, an improved protection of intellectual property rights and a growth in import following the decrease of tariffs are going to further encourage FDI’s (Tgcom24, 2018). In this new favorable economic context, Brembo is ready to grasp any opportunity to further expand its market share with other entry modes, the whole with the aim to become the leader company in the production of braking systems and components for vehicles.



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