

Department of Business and Management

Cattedra di International Economics

International manufacturing location decisions: a focus on the reshoring phenomenon

Prof. Luca De Benedictis

RELATORE

Prof. Paolo Garonna

CORRELATORE

701431 - Giulia Roppoli

CANDIDATO

Anno Accademico 2018/2019

Table of contents

Abstract	3
Abbreviations	3
Introduction	4
1. CHAPTER 1: Offshoring and reshoring	8
1.1. Introduction.....	8
1.2. Concepts.....	13
1.2.1.1. Insourcing and Foreign Direct Investment (FDI)	13
1.2.1.2. Outsourcing.....	14
1.2.1.3. Offshoring	15
1.2.1.4. Reshoring	16
1.2.1.5. Nearshoring.....	18
1.3. Extant Literature	19
1.3.1.1. Methodology literature review.....	20
1.3.1.2. Offshoring: a literature review	21
1.3.1.3. Reshoring: a literature review	26
1.4. Empirical evidences of reshoring in the world	36
1.4.1.1. The European case	37
1.4.1.2. The American case.....	42
1.5. Conclusions.....	44
2. CHAPTER 2: A theory-based framework about production location decisions' drivers	46
2.1. Introduction.....	46
2.2. Theoretical foundations: TCE, RBV, OLI Model (Eclectic Paradigm), Internalization Theory, International Trade Theories, De-internalization, Foreign divestments	47
2.3. Reshoring: a correction of a previous erroneous offshoring decision or a step in the evolutive right-shoring decision process? The analysis of two schools of thought.....	53
2.4. Factors driving location decisions.....	56
2.5. Factors driving offshoring, risks and challenges	61

2.6. Factors driving reshoring, benefits and opportunities.....	63
2.7. An interpretative framework of international location decisions.....	68
2.8. Discussion	69
2.9. Conclusions.....	70
3. CHAPTER 3: The empirical analysis: a focus on European manufacturing firms.....	72
3.1. Introduction.....	72
3.2. Methodology	72
3.3. Sample selection and variables investigated.....	75
3.4. European data sample analysis	76
3.5. Updated framework of international location decisions within the TCLF industry in Europe.....	95
3.6. Discussion	96
3.7. An exploratory data analysis using Gephi software.....	98
3.8. Conclusions.....	99
Conclusions, limitations, future research and implications for managers and policymakers.....	101
Table of figures	106
Table of tables	106
Appendix 1.....	107
Appendix 2.....	117
References.....	128
Web Bibliography.....	139

Abstract

This Master Thesis contributes to the emerging literature on reshoring, offering a characterization of the reshoring phenomenon for Europe and leading to advancements in knowledge both from a theoretical and an empirical point of view.

The purpose of this Master Thesis is to elaborate a theoretical framework, based on the extant literature on offshoring and reshoring, in order to analyse companies' international production location decisions. The theory-based framework is then applied to a sample of European companies operating in the Manufacturing sector in order to analyse the determinants which have led European companies to undertake a reshoring strategy in the last eight years.

As far as the findings are concerned, this study demonstrates that international production location decisions are becoming more and more demanding for companies, largely due to the increasing complexity of the environments where firms operate. Thus, companies are required to adopt a dynamic approach, since they are called to adapt their strategies to the external/internal environments and to take into account many factors which go beyond costs. Indeed, cost-related factors are important for international production location decisions but do not cover a dominant position anymore. In fact, the empirical analysis of 196 reshoring decisions proves that value-driven and country-specific drivers prevail over cost-efficiency ones.

Finally, this study conveys valuable insights for managers and policymakers, in order to develop initiatives prompting a further development of the reshoring phenomenon.

Abbreviations

FDI (Foreign Direct Investment)

GVC (Global Value Chain)

MNC (Multinational Corporation)

SCS (Supply Chain Strategy)

SME (Small and Medium-sized Enterprises)

TCLF (Textile, Clothing, Leather goods, Footwear industry)

Introduction

In the history of the world economy, location production decision-making has always drawn the attention of economists, academics and managers, since it is a topic with crucial implications in terms of investments, profitability, occupation, transports and trade. Indeed, the localization of companies' activities is strongly linked to the firm's strategy and has large impact on the company's balance sheet, notably costs. Therefore, in order to choose, implement and enforce the right sourcing decision, companies have undergone structuring and restructuring processes in their supply chains, over the years. This also occurred due to significantly changes in the factors determining business locations throughout history. What changed? Why did companies offshore their production activities? And why did they decide to come back to their home country? What's the extant scale of the phenomenon in Europe? These are the questions that this Thesis attempts to answer.

But let's proceed step by step. Since the 1980s, the offshoring, namely the partial or total relocation of a business activity to a foreign country, has been a strategy widely implemented by companies which wanted to reduce labour costs, above all, and preserve and boost their competitive advantage while facing the fierce international competition caused by the globalisation, the liberalisation of the market and the unprecedented development of information and communication technologies (ICT). Indeed, in order to survive in the globalised world chessboard, companies responded with international trade, networks of enterprises (clusters and partnerships) and foreign direct investments (FDI). This new networked and global scenario affected the way companies operated, competed and redesigned their value chains on a global scale (Global Value Chains, GVCs) leading to the development of international configurations of the manufacturing activities.

Although the offshoring phenomenon is not running low, in the last decade a counter trend has emerged in the international business scenario. In fact, companies which had previously offshored their production activities to a foreign country started to reconsider their strategy, since offshoring decisions have proved to be not so performing and profitable as managers thought and external and/or internal factors have deteriorated the attractiveness of localizing production activities in a foreign country. As a consequence, companies started to redesign their GVC, relocating the offshored processes back to their home country, within the domestic borders. This phenomenon is referred to as *reshoring*.

To identify the phenomenon of companies' "production repatriation" from a foreign country to their home country, literature, trade press and consulting firms have been using many different terms, as generally happens when there is a new and multi-faceted notion. In the current study, "reshoring" will be the term used.

Nowadays, reshoring is not a mass trend, but its relevance is steadily increasing, therefore it deserves consideration and discussion. In this regard, attention to the phenomenon has been given even by policy makers of Western countries, especially United States of America, in order to revitalise national manufacturing and increase the employment rate.

The reversal in the “shoring” decision-making trend seems to teach that the world in which companies operate has currently reached a level of complexity which doesn’t enable them to make a location production decision light-heartedly.

Accordingly, I decided to tackle the topic of international production location decisions since both my academic background and my little career path gave me the opportunity to understand the importance that this topic covers for companies, executives, policymakers and the economy of a country. Understanding why companies offshored their manufacturing activities and then reshored them back to their home country, and what’s the economic and historical framework in which these practices have developed, it’s deeply relevant and provides the basis to grasp the relation between the two phenomena. Thus, the significance of international production location decisions in today’s business world aroused my curiosity and prompted me to deepen my insight about this subject. In the broad theme of production location decisions, I have chosen to further my analysis and to focus, in particular, on the reshoring phenomenon, since I find it interesting to understand the turnaround in a company’s behaviour and the company’s choice to relocate its activities back to its home country.

As far as the goal that this Thesis aims to achieve, the objective of this study is to further the extant insights about the phenomenon of manufacturing location decisions, with a particular focus on the phenomenon of reshoring, and to investigate offshoring and reshoring drivers both from a theoretical and an empirical standpoint. In order to reach the objectives set, this Thesis has been structured in three chapters: the first chapter deals with the literature review, the second chapter focuses on the definition of the theory-based framework about the offshoring and reshoring drivers and, finally, the third chapter encompasses the empirical analysis carried out with a personal database stemming from the European Reshoring Monitor and the software Gephi.

The three core chapters are briefly described below.

In Chapter 1, after an introductory framework and a brief presentation of the main concepts which will be named throughout the Thesis, it will be provided an exposition of the extant literature on the phenomena of offshoring and reshoring in order to understand how far academics have gone with their studies and researches. Indeed, over the past years, locational aspects of a company’s value chain gained increased attention by scholars, academics, executives, practitioners and policymakers. In light of this, the international literature has released a sizeable and continuously growing amount of publications on the offshoring and reshoring phenomena. As far as the methodology used to build the current literature review (regarding both offshoring and reshoring), academic papers, reports released by consulting firms (e.g. McKinsey & Co., PWC, Boston Consulting Group), articles issued by international press (The Economist, Il Sole 24 Ore, The Wall Street Journal) published until May 2019, international journals and academic databases like Google Scholar, Elsevier’s Scopus, LexisNexis Academic, Springer, internet search engines, the reference lists of the retrieved papers have been considered. The result has been the collection of 120 papers and dissertations which have

been studied and deeply analysed in order to grasp the insight and the knowledge provided, their contributions to the extant literature, their limits and the suggestions for further researches. After the literature review, there will be a presentation of the phenomenon of reshoring as it has really been implemented by firms throughout the world, with a specific focus on Europe and United States.

The objective of Chapter 2 is to develop a theory-based framework on offshoring and reshoring drivers. The framework is going to be applicable to concrete cases of value chain location decisions (encompassed in the following chapter), with the goal of defining and interpreting the behaviour of companies undertaking reshoring strategies. Therefore, the Thesis is going to follow a two-stage approach: (1) deductive development of the conceptual framework grounded on systematic literature review; (2) application of the framework (and following refinement or enhancement thereof) on a specific sample of companies.

From a methodological standpoint, the framework is deductively generated basing on the extant literature and other documents (articles from newspapers, national and international specialized economic periodicals, consulting groups' reports, international organizations' documents).

Chapter 2 will present the main theories which have been considered throughout the reshoring studies, in order to address the issue of the relocation of manufacturing activities from a theoretical standpoint. Indeed, in order to classify and analyse offshoring and reshoring drivers, it's important to highlight that these motivations often revolve around economic rationales and rely on international business frameworks (i.e., the Dunning's eclectic paradigm and internalization theory), strategic management theories (i.e., Transaction Cost Theory, Resource Based View) or international trade theory. Moreover, the decision to reshore has attracted a relevant attention in the economic and business framework and a dilemma was born: some researchers and academics interpret reshoring as a correction of a previous (wrong) offshoring decision, others consider it as a step within the evolutive manufacturing location decision process of a company. Thus, two schools of thought have emerged: one considering reshoring as a "correction mechanism" as compared with a previous erroneous managerial decision (namely, the offshoring), the other interpreting it as a "simple change in strategy" due to changes occurred in the external and/or internal scenario. Giving an answer to this dilemma is not an easy task, as also understanding the complex nature of reshoring and its underlying motivations.

Afterwards, a subsection is going to present the most relevant drivers when deciding the location for a manufacturing activity, regardless of it being domestic manufacturing, a reshoring or an offshoring case. Therefore, this subsection is going to provide insights about the drivers which lead companies to strategically locate manufacturing activities exactly in a specific site. The following two subsections are dedicated to the most important reasons driving companies to offshore their production activities to a foreign country, preferred over the national country, and to reshoring drivers.

In order to integrate and strengthen the theory-based framework which has been presented in Chapter 2 and that focuses on offshoring and reshoring drivers, Chapter 3 will present a database of cross-country and cross-industry reshoring decisions. Indeed, to develop a better understanding of the reshoring phenomenon and of

its current stage in Europe, data have been collected between January to August 2019, mainly via the online database, constantly updated and publicly available on the European Reshoring Monitor website.

Therefore, Chapter 3 will outline a detailed and operational description of the methodology used to build the sample, to select the variables to be examined and to carry out the analysis. Then, a paragraph will be dedicated to the discussion of the findings stemming from the analysis of the companies constituting the sample. Afterwards, the theory-based framework developed in Chapter 2 will be adapted to the results of the study and its robustness will be tested on the empirical analysis. Finally, the analysis proceeds with a further investigation on the topic using a supporting tool, Gephi, which allows to visualize the economic network resulting from the analysis.

Chapter 3 is a core part of the current Thesis since it encompasses the empirical analysis. The chosen focus is the manufacturing sector because it's of key importance for a national economy and a great deal of attention is paid to this sector in order to make it stronger. Therefore, the focus of this Thesis is to investigate the phenomenon of reshoring of production activities in the broad sector named by the NACE 2007 codification "Manufacturing" (Code C – Manufacturing). Thus, the aim is to detect all the companies headquartered in Europe, registered in the European Reshoring Monitor database, operating in the Manufacturing sector, which have offshored and then reshored (partly or totally) their production activities back to their home country, within a period running from 01/01/2014 to 22/07/2019. In order to have a clear understanding of the position held by each company in the international business scenario, further information have been researched in Aida and Orbis, two tools developed by Bureau Van Dijck, a Moody's analytics company.

1. CHAPTER 1: Offshoring and reshoring

1.1. Introduction

In the history of the world economy, location production decision-making has always drawn the attention of economists, academics and managers, since it is a topic with crucial implications in terms of investments, profitability, occupation, transports and trade. Indeed, the localization of companies' activities is strongly linked to the firm's strategy and has large impact on the company's balance sheet, notably costs. Therefore, in order to choose, implement and enforce the right sourcing decision, companies have undergone structuring and restructuring processes in their supply chains, over the years. This also occurred due to significantly changes in the factors determining business locations throughout history.

In the historical framework, when the early factories were established during the First Industrial Revolution¹ in the second half of the eighteenth century, the most important localization factors were related to technical aspects. Among these, being transportation very expensive at that time, entrepreneurs preferred to start a plant in proximity to energy sources, raw materials, workmanship and the target market. This explains why the first plants were established near the early cities where people coming from the countryside flocked numerous.

With the Second Industrial Revolution² in the second half of the nineteenth century, transportation and communication costs reduced significantly due to the introduction of electricity, chemicals and oil and the adoption of new technological systems such as railroad networks and the telegraph. These meaningful technological innovations enabled companies to make the decision of the localization of their production facilities not necessarily bound to the proximity to raw materials and energy sources, since it was easier and cheaper to transport them. Hence, the most valuable factors for the location of production factories during this period were: the closeness to plentiful workmanship (needed in the early assembly lines), considerable amounts of capital to be invested in big sizable plants (able to host the long assembly lines), proximity to the target market, closeness to infrastructures.

¹ The first Industrial Revolution began in Great Britain and affected European countries and United States of America. It covers the period running from the second half of the 18th century to the first half of the 19th century. The First Industrial Revolution interested mainly the textile and metallurgic sectors, marking the significant transition from hand production methods to the using of machines. It introduced new chemical manufacturing and iron production processes as well as unprecedented innovations such as the steam engine and the steering wheel.

² The Second Industrial Revolution conventionally starts in 1870, date of the introduction of electricity, oil and chemicals within factories. From 1870 to the first half of the 20th century, Europe and United States witnessed to an unprecedented development in the technical field, that's why the Second Industrial Revolution is also known as the Technological Revolution. It affected mainly the agricultural, metallurgic, textile and food sectors. Among the most valuable innovations launched within this period it's possible to highlight railroad networks, the telegraph, the telephone, electrical power.

According to economics, the Second Industrial Revolution coincides with the first wave of globalisation. Illustrious John Maynard Keynes described the phenomenon and the atmosphere of openness to the world (which was “becoming smaller”) breathed in that period with the following words: “*What an extraordinary episode in the economic progress of man that age was which came to an end in August 1914! The greater part of the population, it is true, worked hard and lived at a low standard of comfort, yet were, to all appearances, reasonably contented with this lot. But escape was possible, for any man of capacity or character at all exceeding the average, into the middle and upper classes, for whom life offered, at a low cost and with the least trouble, conveniences, comforts, and amenities beyond the compass of the richest and most powerful monarchs of other ages. The inhabitant of London could order by telephone, sipping his morning tea in bed, the various products of the whole earth, in such quantity as he might see fit, and reasonably expect their early delivery upon his doorstep; he could at the same moment and by the same means adventure his wealth in the natural resources and new enterprises of any quarter of the world, and share, without exertion or even trouble, in their prospective fruits and advantages; or he could decide to couple the security of his fortunes with the good faith of the townspeople of any substantial municipality in any continent that fancy or information might recommend*”³.

Between the two World Wars, a phenomenon of territorial decentralisation began in the United States. This has been motivated by several reasons: plants started to become old and the equipment obsolete, demand started to increase, and it became necessary to expand the factories to raise the levels of production, transportation costs decreased while costs of land rose downtown. These factors fostered the relocation of factories to suburban areas where costs of land were lower, and transportation allowed for the main contacts with the centre of the nearest town. Factories became bigger and more and more complex to manage in just one place. These conditions resulted in some companies’ necessity and opportunity of growing and reaching significant level of size and productivity. This led to a greater reliance on territorial decentralisation, implemented in the form of division of the production process in phases which could be operated either by separate company’s sites maintaining a continuous coordination with the company itself or by independent firms. Therefore, the phenomenon of territorial decentralisation gave birth to the decentralisation of the production process in several facilities mutually coordinated but distant and owned by the same company, and to the practice of outsourcing parts of the manufacturing process to external firms. From a technological standpoint, companies underwent a time of changes towards specialization, qualification and flexibility of workers. Indeed, abandoned the traditional mass production, industries gained greater organizational and productive flexibility, adapting supply to the demand which was becoming increasingly diversified and governed by rapid changes.

Companies which grew and reached important levels of size, have pushed the process of production decentralization to a global scale, becoming multinational enterprises and localizing parts of the manufacturing

³ John Maynard Keynes, *The Economic Consequences of the Peace*, 1919.

process especially in lower labour costs areas of the world. This reflects the so-called “vertical disintegration” of production, which means that before reaching the final consumers a product goes through several manufacturing phases often executed in different countries. In this regard, an annual report of the World Trade Organization (1998) illustrates the production of an American car at the end of the 20th century with the following words: *“Thirty percent of the car’s value goes to Korea for assembly, 17.5 percent to Japan for components and advanced technology, 7.5 percent to Germany for design, 4 percent to Taiwan and Singapore for minor parts, 2.5 percent to the United Kingdom for advertising and marketing services, and 1.5 percent to Ireland and Barbados for data processing. This means that only 37 percent of the production value (...) is generated in the United States”*⁴.

These processes were fostered by and, at the same time, led to the development of the phenomenon of globalization⁵. In fact, manufacturing location decision-making, the development of innovations and globalisation are strictly inter-related phenomena.

Since the 1980s, product and process innovation ran very fast and world trade as a percentage of world GDP reached unprecedented heights. This is considered the third wave of globalisation, in which innovations and technologies such as microprocessors, personal computers (PC), internet and mobile phones have revolutionised people’s way of living as well as companies’ way of doing business.

In order to survive in the globalised world chessboard, companies responded with international trade, networks of enterprises (clusters and partnerships) and foreign direct investments (FDI). The latter refers to the process of **offshoring**, namely the partial or total relocation of the manufacturing process to a foreign country.

Since the 1980s, the offshoring has been a strategy widely implemented by companies which wanted to reduce labour costs, above all, and preserve and boost their competitive advantage. The international chessboard witnessed to the outbreak of the offshoring phenomenon starting from the 1990s when the offshoring strategy gave birth to a real trend among the Western companies’ sourcing decisions. Indeed, manufacturing activities relocation to a foreign country became the only way to stay competitive in the global market and to face the fierce international competition caused by the liberalisation of the market. Starting from the 1990s, the world has, indeed, witnessed to an unprecedented development of information and communication technologies (ICT) and of the international trade which gave birth to a complex network of nodes and hubs through both naval and continental infrastructures. Indeed, this has facilitated the process of communication and exchange of information, design, organization and coordination of the activities between the home and the host country. This sea change in the global chessboard clearly affected production processes, thereby contributing to the

⁴ World Trade Organization. (1998). *Annual Report*, Geneva: World Trade Organization, p. 37.

⁵ Globalisation identifies an economy which overcomes local and regional borders by establishing a “global market”, namely a global scenario made of complex network of resources, relationships, knowledge, information, commercial flows able to continuously reshape the global economy and redesign companies’ strategies. This profoundly influences manufacturing location decisions.

reshaping of companies' business models, international production location decisions and the coordination of the value chains. During the last decades the international business witnessed the offshoring of activities, notably production, from industrialized countries to low labour cost countries, mainly China and other Asian countries. Thus, to sum up, the implementation of the offshoring decisions has been fostered by the increase of international trade, globalization and by the economic liberalization of low production cost countries; by the impossibility to produce enough quantities in the home country due to the shortage of raw materials; by the opportunity of meeting the foreign demand in a more direct and efficient way and by the impossibility to sell products in foreign countries either because of the nature of the products (think of the service sector) or because of the presence of protective barriers (think of the secondary sector); by the possibility of benefiting from the macroeconomic comparative advantages (lower wages, for example) which could be exploited in specific host countries, namely developing economies i.e. China or other Asian countries, Latin America, Eastern Europe. This new networked and global scenario affected the way companies operated, competed and redesigned their value chains on a global scale (Global Value Chains, GVCs) leading to the development of international configurations of the manufacturing activities defined as *global factory* (Buckley, 2004, 2009; Buckley and Ghauri, 2004), *international supply chain* (Casson and Wadeson, 2012; Casson, 2013), *global commodity chain* or *global value chain* (Gereffi and Korzeniewicz, 1994).

In particular, in the TCLF (Textile, Clothing, Leather goods, Footwear) industry offshoring has mainly affected the labour-intensive activities and its main driver was cost-cutting.

Although the offshoring phenomenon is not running low, in the last decade a counter trend has emerged in the international business scenario. In fact, companies which had previously offshored their production activities to a foreign country (either by insourcing or outsourcing) started to reconsider their strategy, since offshoring decisions have proved to be not so performing and profitable as managers thought, and to redesign their global value chain relocating the offshored processes back to their home country, within the domestic borders. This phenomenon, nevertheless has been referred to with several names as it will be highlighted in the "1.2. Concepts" section of this Thesis, is known as *reshoring*.

Labour cost in host countries gradually increased, as a natural effect of globalization, and innovation has undergone a positive development in developed Western countries. In this regard, automation and robotization ("Internet of Things") are progressively growing in Western developed economies. Moreover, global competitive conditions, economic and political frameworks, customer location, price instability, attention to sustainability issues, currency valuation, transportation costs are rapidly changing in the international chessboard. Hence, these factors have deteriorated the attractiveness of localizing production activities in a foreign country and companies have begun to reconsider their offshoring decisions in countries which no longer offer favourable conditions.

According to the Boston Consulting Group, already in 2013 more than half of the US companies which offshored their production activities to a foreign country decided to relocate their manufacturing activities back to their home country (Boston Consulting Group, 2013).

In recent times, the phenomenon of manufacturing reshoring (Fratocchi et al., 2014), i.e. a company decision to bring production back to its home country, has gained momentum in the trade press (Booth, 2013) and in reports released by consulting firms (Laudicina et al., 2014; Sirkin et al., 2012; Boston Consulting Group, 2013). The phenomenon is not a mass trend (Laudicina et al., 2014) but its relevance is steadily increasing (Sirkin et al., 2012), therefore it deserves consideration and discussion. In this regard, attention to the phenomenon has been given by policy makers of Western countries in order to revitalise national manufacturing and increase the employment rate. First among these, United States of America considered reshoring as a partial solution to rise unemployment rates (Tate et al., 2012) and former President Barack Obama encompassed reshoring in his electoral campaign and, after being elected, hosted the "Insourcing American Jobs" Forum at the White House⁶ focused on companies choosing to bring jobs back to the US and to increase their investments there.

The reversal in the "shoring" decision-making trend seems to teach that the world in which companies operate has currently reached a level of complexity which doesn't enable them to make a location production decision on a mere cost-advantage basis. Nowadays, companies have to consider multiple factors such as strategy, risk management, flexibility and supply chain reliability, when deciding where to locate and how to organize their manufacturing activities (Tate 2014) and not purely quantitative analyses that trade-off transport costs, scale economies, and other cost-based variables (MacCormac et al. 1994). Since location decisions have a long-term influence on the competitiveness and the operational processes of a company, they should be taken carefully (Dunning 2001).

Understanding why companies offshored their manufacturing activities and then reshored them back to their home country and what's the economic and historical framework in which these practices developed provides the basis to grasp the relation between the two phenomena. During the last decades, the global economy has faced many new challenges, as it has been highlighted above, globalization and its aftermath have significantly increased complexity of the global chessboard and taught companies to not oversimplify when it comes to international production location decisions. Therefore, location decision-making should be implemented in a dynamic perspective, considering more than one driver. The static perspective of some decades ago, nowadays fails to capture the global dynamics of today's markets. Furthermore, companies tend to neglect current and future hidden costs, which in turn affects the efficiency of the decision.

After a brief presentation of the main concepts which will be named throughout the Thesis, the first chapter provides an exposition of the extant literature on the phenomena of offshoring and reshoring in order to understand how far academics have gone with their studies and researches. Afterwards, there will be a

⁶ The White House Office of the Press Secretary, *President Obama Hosts "Insourcing American Jobs" Forum at the White House*, January 7th, 2012, <https://obamawhitehouse.archives.gov/the-press-office/2012/01/07/president-obama-hosts-insourcing-american-jobs-forum-white-house>.

presentation of the phenomenon of reshoring as it has really been implemented by firms throughout the world, with a specific focus on Europe and United States.

1.2. Concepts

Having outlined an introductory framework of production location decisions, the intent of this paragraph is to describe the differences among the concepts used in the international manufacturing location decisions, in order to understand the different sourcing notions which will be mentioned throughout the whole Thesis. In particular, the concepts of insourcing and foreign direct investment (FDI), outsourcing, offshoring, reshoring and nearshoring will be outlined.

1.2.1.1. Insourcing and Foreign Direct Investment (FDI)

When a company faces the question where to locate its production activities, it is confronted with the alternative of choosing between “making” or “buying” or, in other words, producing in-house or subcontracting another firm. After having assessed its internal core competencies, relative costs and associated risks, the company can choose respectively between insourcing or outsourcing the production activities (totally or partially).

Referring to insourcing, it addresses to the practice of executing specific processes in-house, i.e. within the company. This decision is distinctively made by companies which can boast internal, unique and competitive core competencies branching off in singular and hardly repeatable resources, talented workers, knowledge, organization structures, innovative processes.

Insourcing is usually performed to gain control over production activities and decision-making processes. Companies can also benefit from the fact that the organizational culture is entirely applied to the internally executed operations without the risk of dealing with third-party cultural differences. This allows the company to be in the position of monitoring, measuring, correcting, enhancing and innovating the internal processes. Sometimes, insourcing is implemented to improve cost effectiveness, since it's a practice where the firm is not dependent on a third-party partner. Therefore, under certain conditions, insourcing is the strategy which enables the firm to perform more efficiently.

With regard to the potential disadvantages connected to insourcing, first and foremost it can require a significant investment: high investments in plants and equipment needs to be made when a company plans to manufacture internally (Handfield & Nichols, 2002). Furthermore, if consumers' needs change, it can be more arduous to adjust the product realized with in-house processes compared to substituting the current supplier: coordinating the different parts in the supply chain is more challenging than switching suppliers (Handfield & Nichols, 2002). In addition, insourcing may not be the optimal strategy if the company doesn't own distinctive core competencies and has to develop them, if the investments required to insource are higher than the outsourcing ones, if the process/function/project affected doesn't relate to the core business and thus investing

effort, workers and capital on it would mean divert resources away from the core business. Ultimately, sometimes insourcing is not the optimal choice and there is a need to outsource.

Broadening our discussion to the international field, companies operating in several countries are considered multinational companies (MNCs).

When a MNC owns foreign affiliates, the investment is considered a Foreign Direct Investment (FDI). A distinction between Vertical FDI and Horizontal FDI can be made:

- In the Vertical Foreign Direct Investment, the company's production chain is broken up, and parts of the manufacturing process are relocated to the foreign affiliate.
- In the Horizontal Foreign Direct Investment, the foreign affiliate replicates the production process that the parent company carries out in its domestic facilities.

In both instances, being the affiliate owned by the parent MNC, the production process can be considered as insourced even if it is undertaken in a facility established in a foreign country. In fact, the affiliate and the parent operate as a part of a single multinational company.

1.2.1.2. Outsourcing

According to Quinn (1994), two strategic approaches allow managers to leverage their organisations' skills and resources in an efficient way:

- Gather and consolidate the company's own resources in order to generate a group of "core competencies" able to provide unique value to the company and to its customers.
- Strategically outsource those activities which do not particularly stand out for their uniqueness or closeness to the company's core business.

With these two scenarios James Brian Quinn and Frederick G. Hilmer⁷ began their world-renowned paper about strategic outsourcing considering the latter as the opposite of insourcing (the former). According to James Brian Quinn and Frederick G. Hilmer, firms should develop a few well-selected core competencies meaningful to consumers and in which the company can outperform its competitors; focus investments and management attention on them; and strategically outsource many other activities where it cannot be or need not be best⁸.

Outsourcing is the business practice of contracting a company's process to an external firm which becomes a third-party partner. This last one becomes responsible for the administrative and operational control of the business process under contract. Therefore, this practice implies that previously in-house activities are moved (partially or totally) to an external supplier who becomes in charge of their ownership and control. This means that a significant exchange of information between the two companies must be operated.

⁷ Quinn J. B., Hilmer F. G., (1994), *Strategic Outsourcing*, Sloan Management Review, July 15th, 1994.

⁸ *Ibidem*.

Outsourcing parts of the production process can bring several benefits to the company. First and foremost, an independent firm can be specialized in a very specific part of the production process and, consequently, carry out the process more efficiently. Indeed, the third-party partner may hold technical expertise together with specific equipment and it may exploit economies of scale if it undertakes those processes for many different parent firms. Moreover, outsourcing specific activities gives the company the opportunity to strengthen its core business focusing more resources, capitals, efforts, workers on it. In addition, outsourcing certain activities can also be a way to shift critical responsibilities to external partners which can take them over more efficiently. Lastly, outsourcing is often motivated by cost-saving drivers.

As far as the drawbacks regarding outsourcing are concerned, the first is linked to security and potential threats: the risk of exposing sensitive and confidential company information to the outsourced supplier. Furthermore, another risk concerns the lack of flexibility: the contract may prove too strict to accommodate changes along the way. In addition, disadvantages may refer to sub-standard quality, stretched delivery times, improper and unclear allocation of responsibilities, friction between the two companies due to different business cultures.

Outsourcing can be implemented either inside the home country or in a foreign one.

Broadening our discussion to an international field, a MNC can decide to license a foreign third-party partner the execution of specific parts of the production process in order to exploit cost advantages. In fact, most of the companies outsourcing their production activities to foreign third parties, implement this strategy in lower labour costs countries. In any case, being the fact that the company is contracting with a foreign independent firm to perform specific parts of the production process, it's still considered as outsourcing.

1.2.1.3. Offshoring

Offshoring is the relocation of parts of the value chain in a country different from the country where the company is headquartered. Offshoring can also be defined as the practice of being located or operating outside a country's boundaries (Jahns et al., 2006). In addition to this definition, Mol (2007) claims that offshoring is related to procuring an input from, or supplying an input to, a foreign country. A follow-up study by Casson and Wadeson (2013) states that offshoring is purely a location decision, as it consists in a rational answer to cost differentials between several locations, and the willingness to take advantage of such differences.

In light of these definitions, offshoring can be defined as the relocation of value chain activities (the majority of the times, production activities) abroad and it's a concept which gathers both foreign outsourcing and vertical FDI. Indeed, considering the concepts presented above, if a company decides to relocate parts of its manufacturing process in a foreign country maintaining the operations in-house, and thus in owned facilities located abroad, it's the case of a vertical FDI (an offshore insourcing strategy). Conversely, if a firm commits its production activities (or part of them) to a foreign independent provider, it is implementing a foreign

outsourcing practice (an offshore outsourcing strategy). Both vertical FDI and foreign outsourcing entail lower production costs but higher fixed cost, compared to a no-offshoring condition. This is the reason why researchers claim that only firms that operate at a big enough scale will opt for offshoring. The company's decision between insource offshoring and outsource offshoring depends on several factors: fiscal legislation and local taxes, incentives for investments, restrictions on capitals movement, financial support of the local government, political stability, culture, availability of services and reliable infrastructures, labour relations (conflicting or cooperative), environmental legislation, adequacy of the system protecting contractual rights, expertise and quality of the local workmanship, type of product or service offshored (for example, if the service offshored is a standardized activity, like the call centre activity, companies are more likely to outsource the process instead of investing its own resources on it; if the production offshored is aimed at realizing a product or a service with a high level of customization, innovation, creativity and/or ability to problem solving, it deserves a higher control by the company, which will opt for an insource offshoring).

Since the 1990s offshoring has been increasingly undertaken by companies headquartered in Western countries which wanted to preserve or boost their competitive advantage, giving birth to a real trend within the firms' manufacturing location decision-making.

Among the main reasons driving offshoring decisions, seeking efficiency through costs reduction occupies a leading position, especially with a focus on labour costs. Therefore, within the last decades, it seemed to make no sense not to offshore as the labour costs in some developing countries were extremely lower (Hutzel and Lippert, 2014). Indeed, offshoring often brings benefits in terms of lower costs of labour and other productive inputs (Jensen and Pedersen, 2011). Other drivers encompass the access to products, technologies, or knowledge not available at home (Lewin et al., 2009), the improvement of product quality (Ettlie and Sethuraman, 2002), the development of foreign sales activities (Bozarth et al., 1998; Shi and Gregory, 1998) also through countertrade agreements (Nassimbeni et al., 2014), and the improvement of delivery performance (Frear et al., 1992) together with the proximity to specific target markets.

1.2.1.4. Reshoring

Reshoring is the relocation of production activities previously offshored to the company's home country, i.e. the country where the company is headquartered. Ellram⁹ defines reshoring as the practice of "moving manufacturing back to the country of [the firm's] parent company". Moreover, reshoring, or backshoring, is defined by Fratocchi as a "voluntary corporate strategy regarding the home-country's partial or total re-location of (in-sourced or out-sourced) production to serve the local, regional or global demands" (Fratocchi et al., 2014). With respect to Ellram's definition, Fratocchi stresses the facet of the voluntariness in making

⁹ Ellram, L.M. (2013), *Offshoring, reshoring and the manufacturing location decision*, Journal of Supply Chain Management, Vol. 49 No. 2, pp. 3-5.

the reshoring decision and explicitly mentions the circumstance in which the company chooses to relocate only a part of the production processes previously offshored.

To identify the phenomenon of companies’ “production repatriation” from a foreign country to their home country, literature has been using many different terms, as generally happens when there is a new and multi-faceted notion. Hence, the relocation of production activities previously offshored generated different terms and explanations. One of the first terms employed has been “return relocation” by Jungnickel¹⁰ in 1990. Afterwards, the phenomenon of reshoring has been referred to as “in-shoring” by Skipper¹¹ in 2006 and by Dholakia, Kompella and Hales¹² at the Knowledge Globalization Conference which was held in Pune, India, in 2012. A third term which can be found among the academic papers and newspapers is “back-reshoring” whose early adopters’ have been Kinkel and Maloca¹³ in 2009 within the framework of the German literature. Furthermore, reshoring has also been referred to as “captive backshoring” (Kinkel and Zanker, 2013) or “internal back-shoring” (Kinkel and Maloca, 2009).

Although the concept of production relocation back to the domestic country is named with various terms by academics and reporters, the term which is going to be used throughout this Thesis is “reshoring”.

In light of these definitions, it can be asserted that reshoring is a reverse “shoring” location decision compared with a prior offshoring. Being reshoring subsequent to offshoring, it follows that the reshoring decision-making process also depends on the offshoring process, namely the offshored host country (*where*), the activity/activities offshored (*what*), the entry mode adopted in the foreign country (*how*), the date and the period of offshoring (*when*), to *whom* the operations were allocated (in-house or contracting with third-parties), the reasons driving offshoring (*why*).

		PRODUCTION LOCATION	
		HOME country → HOST country	HOST country → HOME country
SOURCING	MAKE	OFFSHORING INSOURCING	RESHORING INSOURCING
	BUY	OFFSHORING OUTSOURCING	RESHORING OUTSOURCING

Table 1: Personal summary and visual elaboration of the above-explained concepts

Source: Personal elaboration of the above-explained concepts

¹⁰ Jungnickel R. (1990), *Technologien und Produktionsverlagerungen*. Verlag Weltarchiv, Hamburg.

¹¹ Skipper W. (2006), *Services offshoring: An overview*, *Anthropology of Work Review*, vol. 27, n. 2, pp. 9-17.

¹² Dholakia N., Kompella R.K., Hales D. (2012), *The dynamics of inshoring*, Paper presented at the Knowledge Globalization Conference, Pune, India, vol. 6, n. 1, pp. 88-95.

¹³ Kinkel S., Maloca S. (2009), *Drivers and antecedents of manufacturing off-shoring and backshoring - A German perspective*, *Journal of Purchasing & Supply Management*, vol. 15, n. 3, pp. 154-165.

1.2.1.5. Nearshoring

In addition to the above-mentioned concepts, the notion *nearshoring* deserves also an explanation. Nearshoring refers to the operation of relocating part of the company's production chain in a country which is situated nearby the country where the company is headquartered, normally preferred to further countries. A tangible example is an Italian company nearshoring its production activities to Romania instead of China or a US company nearshoring its production to Mexico or Canada instead of India. It is a sourcing decision, thus it can be either subsequent to offshoring, and therefore considered as a sort of reshoring to a nearby country and not exactly within the national borders of the home country, or it can be viewed as an effective offshoring strategy where the host country is a nearby country.

Companies which opt for nearshoring instead of offshoring to a further country, seek the benefit of the lower distance between the headquarter and the nearshored plant and the better production control obtained (Fratocchi et al, 2014). Moreover, benefits related to nearshoring concern the shared time zone which enables a smoother communication between the parent firm and the nearshored one, since the latter has the same working hours as the former, together with the possibility for managers of traveling more easily from the domestic to the host country. Hence, more contacts lead to a higher control. Companies nearshoring their production activities also benefit from lower labour and freight costs, improved control over the supply chain, shorter time to market, enhanced management of the intellectual property.

Looking at the A.T. Kearney Global Services Location Index¹⁴ disclosed in 2017¹⁵, it is possible to notice that Central and Eastern European countries together with Central and South American countries (respectively, nearshoring destinations for Western European countries and USA) are gaining positions among the international players, overall, even if the primacy still belong to Asian countries.

¹⁴ The A.T. Kearney Global Services Location Index, previously named "Offshore Location Attractiveness Index", is an indicator of countries' attractiveness as potential locations for offshore services which is calculated on the basis of three components: financial attractiveness, people skills and availability, business environment.

¹⁵ A.T. Kearney Global Services Location Index™,

<https://www.atkearney.com/documents/20152/793366/The+Widening+Impact+of+Automation.pdf/42b06cf4-e5f9-d8ec-a30c-a82dd26d4953?t=1505410482143>.

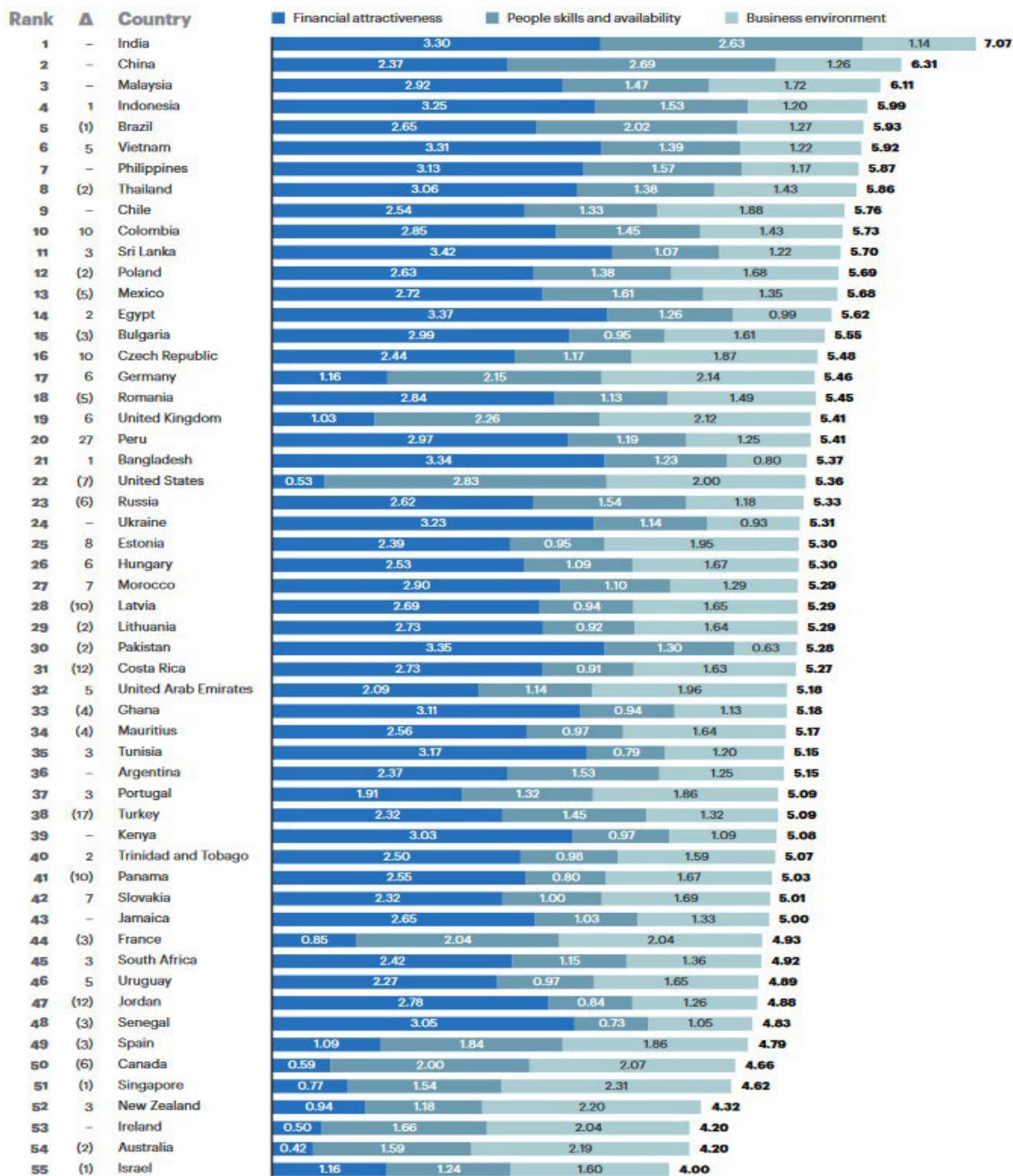


Figure 1: 2017 A.T. Kearney Global Services Location Index

Source: A.T. Kearney Global Services Location Index™

Notes: Δ represents the change in rank since the 2016 Index

1.3. Extant Literature

After having outlined the main concepts which will be used throughout the whole Thesis, in this section, a literature review on offshoring and reshoring will be outlined. First, however, it must be highlighted that the two phenomena correspond to two different (and reverse) supply chain strategies which also relate to a concept which has been analysed by academics. “Supply chain strategy” refers to all the decisions regarding “sourcing products, capacity planning, conversion of raw materials, demand management, communication across the supply chain, and delivery of products and services” (Narasimhan et al. 2008, p. 5234). Among these, the

sourcing and distribution activities play a key role in the supply chain strategy. In addition to this, Lee (2002) identifies four categories of supply chain strategy (SCS): a) the *efficient SCS* aimed at achieving cost efficiencies; b) the *risk hedging SCS* aimed at sharing resources among the parties in order to share also the risk connected with supply chain strategies; c) the *responsive SCS* in which the firm is responsive and flexible to changing consumers' needs; d) the *agile SCS* adopted by a firm whose objective is to be responsive to changing and unpredictable factors such as customers' demand. Once a company has decided which kind (or kinds) of category (or categories) of supply chain strategy it would like to fall in, according to the general objectives set, it is able to choose how to implement the decided strategy. Two possible practices which enable the company to perform the decided supply chain strategy and reach the goals set are offshoring and reshoring.

1.3.1.1. Methodology literature review

Over the past years, locational aspects of a company's value chain gained increased attention by scholars, academics, executives, practitioners and policymakers. In light of this, the international literature has released a sizeable and continuously growing amount of publications on the offshoring and reshoring phenomena.

This section provides an overview of relevant extant literature to better understand and discuss the topics of offshoring and reshoring. The former and the latter are fundamentally location decisions. In addition to this, as previously highlighted, reshoring could not be implemented without a prior offshoring. Therefore, first the literature regarding offshoring is unfolded. In the second subsection, the extant literature related to reshoring will be presented. The study of manufacturing location decisions has generated a vast literature with contributions from multiple disciplines. Both empirical studies presented by academics and evidences outlined by the trade press highlight that firms are reconfiguring their global supply chains.

As far as the methodology used to build the current literature review (regarding both offshoring and reshoring), academic papers, reports released by consulting firms (e.g. McKinsey & Co., PWC, Boston Consulting Group) and articles issued by international press (The Economist, Il Sole 24 Ore, The Wall Street Journal), published until May 2019, have been considered. In the interest of identifying the relevant literature, international journals and academic databases like Google Scholar, Elsevier's Scopus, LexisNexis Academic, Springer, have been used entering keywords like "reshoring", "offshoring", "insourcing", "outsourcing" and so forth. Internet search engines have been employed as well inserting the same keywords. An important contribution to the formation of the body of references used to outline a literature review has been also given by the reference lists of the retrieved papers. Therefore, the so-called "snowball approach" has been implemented in order to detect meaningful further contributions. The result has been the collection of 120 papers and dissertations which have been studied and deeply analysed in order to grasp the insight and the knowledge provided, their contributions to the extant literature, their limits and the suggestions for further researches.

1.3.1.2. Offshoring: a literature review

Over the past decades, the topic of manufacturing location has gained increasing attention by scholars, practitioners and policymakers. Within this frame, the offshoring strategy, in particular, has been widely performed by firms to benefit from cost advantages (Ferdows 1997) and addressed mainly to the countries of the South-East Asia. The major development of offshoring has been notably fostered by fierce globalization dynamics and unprecedented advancements in information and communication technology (ICT).

In this perspective, the international business (IB) literature has generated a sizable body of knowledge on the offshoring practice, investigating the drivers of companies' international location choices, firm's organizations and their entry mode in foreign countries as well as the risks and challenges connected with offshoring.

The meaning of offshoring lies in the firm's location decision to relocate (partially or totally) its value chain activities to a foreign country, regardless of the entry mode (either insourcing or outsourcing) adopted. Thus, offshoring can be defined as a form of firm internationalization. The resulting complex reorganization of the company's value chain in the shape of fragmented and globally dispersed activities represents opportunities as well as challenges for the offshoring firm since the company needs to balance specialization, flexibility, quality and advantages on a global scale.

Scholars have provided different definitions of the offshoring phenomenon within the years. Jahns et al. (2006) state that offshoring indicates "being located or operating outside a country's boundaries". Mol (2007) claims that offshoring consists in "procuring an input from, or supplying an input to, a foreign country". Later researches suggest that offshoring is purely a location decision, as it consists in a rational answer to cost differentials among different locations, and the willingness to take advantage of such differences (Casson and Wadeson, 2013).

As far as the decision of offshoring is concerned, according to Zorzini et al. (2014) six categories of contingency factors can be pinpointed: "product features (technological content and local adaptation); production cost structure (import duties); local economic conditions (currency exchange rates and local economic instability); local regulations (trade agreements); local infrastructure; and, subsidiary size".

Other authors applying contingency factors to analyse the offshoring phenomenon are Mol et al. (2004). They examine the impact that specific technological contingency factors have on the scope of offshore outsourcing initiatives. Their empirical research led them to the result that the increase of product innovation drives up the scope of offshore outsourcing.

Furthermore, as Gene M. Grossman and Esteban Rossi-Hansberg (2006) outline in their study, offshoring depends also on the nature of the task involved: while some jobs can be undertaken remotely without hindrance, others strictly require a close collaboration among the parties. In this regard, Levy and Murnane (2004), classify tasks into five tiers on the ground of what they necessitate among: complex communication, expert thinking, routine cognitive processes, routine manual labour, or non-routine manual labour. According to the authors, the "routine" tasks (both manual and cognitive) can be undertaken implementing an offshoring

strategy since they can be performed on the basis of described rules conveyed from the parent company to the partner abroad. On the contrary, the other tasks necessitate a higher level of reasoning and thus, they are not eligible for offshoring. Roza et al. (2011) investigate the impact of the company's size on the company's offshoring decision. In contrast to what you'd expect, the authors have proved that smaller companies have behavioural advantages such as internal flexibility and entrepreneurial dynamism as compared with larger firms and thus, they are more likely to offshore competence creating activities like product development, still benefiting from cost advantages.

In his seminal work "Location and the multinational enterprise: a neglected factor?" published in 1998, John H. Dunning outlines the offshoring phenomenon highlighting the role of primary importance of the location advantages (the "L" in the earlier OLI Model) in relation to the ownership advantages (O) and internalization advantages (I) within the frame of companies' international activities.

Contractor et al. (2010) research on the relationship between the degree of disaggregation and the level of dispersion of the firm's value chain. Their findings show that the two variables investigated are interrelated, and therefore not independent. Moreover, they conclude that each company has its own optimal degree of disaggregation and dispersion which is the point where the company's value is maximized. Furthermore, Contractor et al. (2010) assert that the core competencies of the offshoring firm lie in its capability to analyse, coordinate and optimize the following factors:

- degree of value chain,
- disaggregation,
- organizational form,
- location,
- time.

In this framework, the offshoring company is considered as an organization which is a knowledge-seeker and, at the same time, arbitrageur of comparative advantages, expert in negotiation and management of the partnerships as well as in coordination of the global supply chain and innovation networks (Contractor et al., 2010). Moreover, relevant to the understanding of the offshoring phenomenon has been Paul Krugman's contribution. Paul Krugman is the frontrunner of the New Trade Theory which shows that with increasing returns to scale, enterprises tend to localise themselves in large markets in order to exploit economies of scale and to minimize costs related to logistics and transportations, namely the "*traslog* costs" (Forte E., Miotti D, 2015). Transportation costs are encompassed within the industrial costs and include also waiting times, bureaucracy, cargo breaches, late deliveries.

According to Forte and Miotti (2015), supply chain *traslog* models can be distinguished in:

- "Finishing": there is a sequential generation of value where only at the end there is the finalisation and the refinement of the product (for instance in furniture, clothing industries).

- “Assembling”: there is a parallel and simultaneous assembling of the parts (for example in the automotive, electronic industries).

In this regard, production delocalisation, i.e. offshoring, depends essentially on the gap existing between different *traslog* costs.

According to some academics, two different categories of offshoring can be outlined:

- **Offshore insourcing**, namely locating owned production activities in a foreign country (Schnierderjans et al. 2005)
- **Offshore outsourcing**, namely outsourcing manufacturing activities via foreign suppliers (Duening and Click 2005).

The offshoring processes taking place in the international business have led to a real repositioning of firms in the global markets and thus, to the development of international configurations of the manufacturing activities defined as *global factory* (Buckley, 2004, 2009; Buckley and Ghauri, 2004), *international supply chain* (Casson and Wadson, 2012; Casson, 2013), *global commodity chain* or *global value chain* (Gereffi and Korzeniewicz, 1994). In the “global factory” the single company manages the value chain by partitioning its processes and allocating activities in order to reach the goal of the optimization of its performance.

As far as the factors upon which an offshoring decision should be made, Schmeisser (2012) asserted that these are mainly three:

- the strategic goal pursued by the company,
- environmental factors related to the companies’ commercial targets and markets,
- firm-specific factors (i.e., company’s resources, capacities and internal policy).

In addition to this, another important driver for offshoring decision has a market-seeking nature. International outsourcing, in fact, gives companies the possibility to have access to new consumer markets and create synergies not only on a manufacturing side but also on a commercial side.

However, it is also significant to acknowledge that the factors affecting a country’s attractiveness change overtime. For example, during the last decade, flexibility and other supply chain-related factors are increasingly being considered by companies when deciding where to locate their production activities.

Concerning the planning of an offshoring decision, Jensen and Pedersen (2011) conducted an empirical study which has led to the conclusion that the firm’s activities location decision depends on the fit between the features of the offshored process and the characteristics of the foreign host country, i.e. labour cost, availability of skilled workmanship. The authors claim that, according to their empirical analysis, the location choice depends more on the “advancement” level of the activities involved (namely, standardized and operational activities or advanced activities) rather than on the business function to which the activities belong to (namely, production, IT or others).

The offshoring of business activities typically occurs from a high-cost or low-growth country to one characterized by low costs and high growth (Ferdows, 1997). The main advantages that companies pursue when offshoring to “low cost” countries are linked to cost savings (Kinkel and Maloca 2009; Kumar et al. 2009). This is particularly true when Western companies offshore their labour-intensive processes characterized by a low-quality level. Among the determinants forming the total cost of production, the cost of labour covers a role of primacy when deciding the location of production activities. A concrete example which helps understanding why the offshoring gave birth to a real massive trend in the last decades is provided by the United States Bureau of Labour Statistics which reports that the hourly cost of labour in the manufacturing industry in 2003, during the peak moment of the offshoring phenomenon, in China and India amounted respectively to 0.62 and 0.81 US dollars while, for instance, the same variable amounted to 23.35 US dollars in Italy. Indeed, the gap existing between labour cost in China and India and labour cost in developed economies continued to reduce given that wages in China and India continued to increase by 10%-20% per year. This has shed light on the criticalities of offshoring, also encompassing shipping costs and lead-times, lost manufacturing expertise, potential intellectual property leakage, increased disruption risks, and political pressure (*The Economist* 2013).

Thus, the assessment of the company’s production location is more and more comprising factors which are not associated (directly) to costs. Ellram et al. (2013) indicate the main drivers for today’s companies’ offshoring strategies as follow: flexibility, delivery reliability, quality and customer’s expectations. As far as delivery reliability is concerned, it refers to lead time which needs to be proper in order to avoid a worsening of the service level and costly missed sales opportunities (Tate et al. 2014).

Taking the labour cost one step aside and considering the other qualitative and supply chain-related factors, it’s crucial to undertake a rigorous analysis of them in order to avoid an underestimation of the total cost, also including costs related to coordination, quality control and quality improvement operations. In addition to this, if the foreign country lacks available and skilled workmanship, this can affect the quality of the final product and result in a cost, at the end. Indeed, all these factors do not directly generate costs, but they still imply “hidden costs” which sometimes can turn to be even higher than the initial company’s savings.

Moreover, as far as the risks connected to offshoring are concerned, Margulescu and Margulescu (2014) highlight that the growing geographic distance of suppliers makes the relationship between the provider and the parent company filled with hurdles and leads to an increasingly complex supply chain management. Concerning the challenges carried by the geographical dispersion of the firm’s business activities, Kumar et al. (2009) resort to a theoretical framework to explain the differences between geographically dispersed activities and activities performed in the same place. The theory at the basis of their study is the Task Interdependency Theory. Their findings lead to the conclusion that the traditional framework of task interdependence works for simple, physical activities performed in the same place but fails to address the activities performed in physically distant sites. Hence, the authors develop a revised theory of task

interdependence enforceable even to geographically dispersed activities in order to enhance the overall performance of the company's global value chain.

Dealing with the decline of the offshoring massive trend, this is also underlined by literature: since the 1990s, academics started to focus their attention on risks and criticalities connected with the phenomenon and not on its benefits anymore. Indeed, although much of the literature on offshoring focuses on its advantages, within the last decade an increasing attention of scholars to its risks and challenges may be recorded. The first risks identified were the danger of the loss of the information control, especially that regarding sensitive data related to the firm's market competitiveness (Smith *et al.*, 1996), and the threat of bypassing the patents placed to protect the intellectual property (Smith *et al.*, 1996; Carmel e Agarwal, 2002; Monczka *et al.*, 2005).

Moreover, another risk connected to offshoring consists of the geographical and cultural distance between the domestic home country and the foreign host country (Carmel e Agarwal, 2002). The afore-mentioned distance may affect the innovation process slowing it down or leading to missed sales opportunities. Thus, in this situation, the cultural, legal, linguistic, and sometimes institutional gap separating the domestic country and the foreign country can jeopardize the company's competitive advantage (Tate et al. 2014). In this regard, Margulescu and Margulescu (2014) claim that the excessive physical distance between a company's headquarters and its production facilities located abroad can represent a major bottleneck to the processes of innovation, design and continuous improvement. Furthermore, resorting to international suppliers may require interventions to train and/or assist them. These investments, however, will be lost if the relationship between the parent firm and the foreign supplier breaks. Besides, in the case of the offshoring outsourcing there is the threat of opportunistic behaviours put in place by foreign suppliers, for instance, the non-observance of the intellectual and industrial property. In addition to this, firms offshoring their production must consider the risks connected to the difficulty to monitor and control the maintenance of the proper quality level of the offshored production. Quality issues are, indeed, a great concern for companies deciding to offshore their manufacturing activities (especially if the offshoring is performed together with outsourcing). Other risks linked with offshoring refer to the rapidly changing legislation and taxation rules. Furthermore, the advantages sought through offshoring often do not materialize or are later jeopardized due to market-, country-, or industry-related changes (Canham and Hamilton, 2013).

As far as the drivers fostering a company to relocate its production activities to a foreign country, these are reported in the extant literature as cost reductions (Kinkel and Maloca 2009); reducing capital costs related to manufacturing (Kakabadse and Kakabadse 2002); focus on core competences by moving non-core activities abroad (Lonsdale and Cox 2000; Kakabadse and Kakabadse 2002); access to complimentary competences like capacity, know-how, and technology (Kinkel & Maloca 2009); transforming fixed manufacturing costs to variable costs (Lonsdale and Cox 2000); proximity to customers/markets (Kinkel and Maloca 2009).

1.3.1.3. Reshoring: a literature review

Reshoring literature review represents the central element of this section, since it helps to understand how the academics tackled the research subject of the current Thesis.

In recent years, the reshoring practice is gaining more and more importance within the companies' international production location decision-making process. For this reason, the topic attracted the attention of the economic and managerial academic literature.

With reshoring academics do not refer neither to a company's decision to localize its production activities at international level (offshoring), nor to the relocation of manufacturing process to a closer country (nearshoring). Ellram (2013) defines reshoring as "moving manufacturing back to the country of its parent company". Although scholars have given many different definitions to reshoring, the element which distinguishes reshoring from other sourcing strategies is the relocation of manufacturing activities within the company's own country of origin, regardless the way production is organized (outsourcing or insourcing), leading to a revitalization of national manufacturing industries and the creation of new jobs. Moreover, reshoring initiatives entail that a previous offshoring strategy was implemented, since it's not possible to refer to the decision of establishing a brand-new production plant within the home country of the firm as a reshoring practice. In this regard, Fratocchi et al. (2014), considering all the definitions given by academics to the concept of reshoring, conclude that reshoring is characterized by three elements:

- Reshoring is the reverse decision compared to a previous offshoring strategy;
- it doesn't necessarily imply the relocation of the whole offshored activities, closing plants or disinvesting the whole subsidiary;
- it is a location decision which doesn't depend on the ownership mode (in-house or outsourcing) adopted neither during the offshoring nor during the reshoring.

Thus, reshoring can be conceptualized as a location choice (Gray et al. 2013) or as one of the possible evolutions of the "non-linear" internationalization process of a firm (Fratocchi et al. 2014).

Gray et al. (2013) deem that reshoring essentially relates to *where* production activities are to be performed, regardless of *who* is performing those activities. To fully understand the meaning of reshoring and the broad range of activities that this strategy encompasses, Gray et al. (2013) argue that reshoring can be thought along the two axes of location (domestic or foreign) and the governance mode (in-house or outsourcing). The Assertion 1 of their paper states that "reshoring is fundamentally a location decision"¹⁶ in order to clarify the definition of what reshoring is and what it's not and to fend off all the misspecifications. Once the authors have defined reshoring as only a location decision, they determine four types of reshoring's manifestations:

¹⁶ Gray, J., Skowronski, K., Esenduran, G. and Rungtusanatham, M. (2013), *The reshoring phenomenon: what supply chain academics ought to know and should do*, Journal of Supply Chain Management, Vol. 49 No. 2, p. 28.

- In-house reshoring: the company meets its demand by relocating production activities previously performed in wholly owned foreign offshored facilities back to wholly owned domestic facilities.
- Reshoring for outsourcing: the company meets its demand by relocating production activities previously performed in wholly owned foreign offshored facilities back to national suppliers.
- Reshoring for insourcing: the company meets its demand by relocating production activities previously performed by foreign suppliers back to wholly owned facilities in the home country.
- Outsourced reshoring: the company meets its demand by relocating production activities previously performed by foreign suppliers back to national suppliers.

Figure 2 illustrates the model presented by the authors:

		<i>To: Onshore</i>	
		In-House	Outsourced
<i>From: Offshore</i>	In-House	In-House Reshoring	Reshoring for Outsourcing
	Outsourced	Reshoring for Insourcing	Outsourced Reshoring

Figure 2: Reshoring options

Source: Gray, J., Skowronski, K., Esenduran, G. and Rungtusanatham, M. (2013), *The reshoring phenomenon: what supply chain academics ought to know and should do*, *Journal of Supply Chain Management*, Vol. 49 No. 2, p. 28

Despite the differences, the common factor among these different options of reshoring illustrated in Fig. 2 is that they are all location decisions.

A few years later, Foerstl et al. (2016) and Bals et al. (2016) have enriched the above-explained framework adding the cooperation alternative (i.e., strategic partnerships, joint ventures, long-term contracts) as a third governance mode. Therefore, they enlarged the model proposed by Gray et al. (2013) to six alternatives.

Assertion 2 of the study conducted by Gray et al. (2013) claims that “a firm cannot pursue reshoring unless it has previously pursued offshoring or offshore outsourcing”¹⁷. It means that reshoring requires that the firm had previously implemented an offshoring strategy. Therefore, the authors make one step ahead of Assertion 1 stating that reshoring, besides being a location decision, is also a reversion from a previous offshoring decision. In more detail, the authors delineate eight different reshoring paths a firm can undertake, each

¹⁷ Gray, J., Skowronski, K., Esenduran, G. and Rungtusanatham, M. (2013), *The reshoring phenomenon: what supply chain academics ought to know and should do*, *Journal of Supply Chain Management*, Vol. 49 No. 2, p. 29.

beginning from a different starting point, depending on when, why and to whom the activities were offshored. Fig. 3 illustrates the eight reshoring paths.

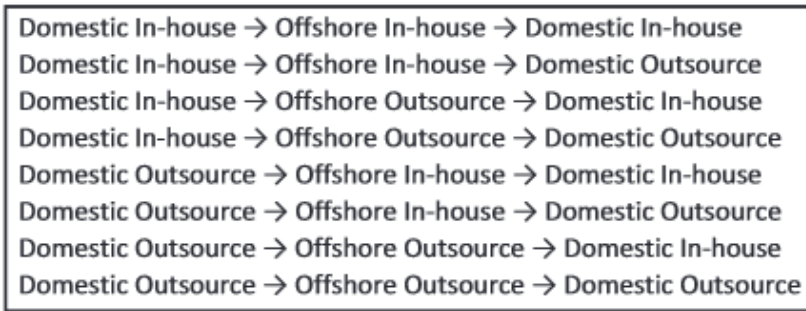


Figure 3: Reshoring paths

Source: Gray, J., Skowronski, K., Esenduran, G. and Rungtusanatham, M. (2013), *The reshoring phenomenon: what supply chain academics ought to know and should do*, Journal of Supply Chain Management, Vol. 49 No. 2, p. 29

Over the last decades, both macro-economic conditions and factors related to single firms have changed, causing an alteration of the advantages perceived by companies offshoring their production activities. Accordingly, patterns of offshoring have changed as well, with firms often chasing the intended advantages of this practice by moving activities from country to country (Baraldi et al. 2017). In this light, reshoring corresponds to moving activities from a foreign country to a country which is the firm’s home country. According to Murat (2013) firms can evaluate three alternatives when it comes to reconsidering their offshoring strategy:

- Further offshoring (namely, widening the geographic scope of offshoring by relocating part or the whole offshored production activity to a further country)
- Stable offshoring
- Reshoring

The current Thesis is going to focus on the last option.

To these three alternatives, Fratocchi et al. (2014) add a fourth possible manufacturing location strategy which is the nearshoring, namely the transferring of part or the whole offshored production activity from a further host country to a country closer to the company’s home country.

Joubioux and Vanpoucke (2016), basing on Bellego study (2014), suggest that when the reshoring alternative is chosen, the firm can examine three different types of reshoring:

- Home reshoring: prompted by the below-expectations results of offshoring and thus, by a failure of prior offshoring.
- Tactical reshoring: motivated by the presence of crucial resources and/or capabilities within the domestic borders and related to short-term decisions.

- Development reshoring: prompted by the plan to upgrade and innovate the firm's products and/or services.

Stern (2015) delineates other reasons which explain the transition from offshoring to reshoring, claiming that offshoring may stretch delivery times slowing down the response to market demand and to customers' expectations. The adaptation of the company's offer to the latest customers' demand is an important factor which organizations are increasingly starting to take into consideration also from a logistic and productive perspective, since being located close to customers means being reactive to customers' demand and, therefore, it generates competitive advantage. This is particularly true considering that nowadays customization is replacing the former standardized products and, therefore, production processes may require to be faster and frequently updated. Hence, proximity with key customers seems to be a crucial factor to remain competitive in the globalized economy (Kinkel and Maloca 2009; Fine 2013; Margulescu and Margulescu 2014; Tate et al. 2014). In this regard, Grappi et al. (2015) have proved that customers tend to attribute a higher value to products realised by companies which have reshored their manufacturing activities.

Margulescu and Margulescu (2014) justify the sharply reduction of the offshoring's drivers stating that nowadays companies are facing two imperatives: the necessity to implement new production processes and new technologies together with a decrease in their implementation costs. This drives firms towards the Joubioux's "tactical reshoring". Bellego (2014) highlights also a marketing-related reason driving companies to reshore. Indeed, recent scandals on noticeably inhumane working conditions, lack of hygiene and security in factories established in developing host countries shed light on the need to reconsider MNCs' responsibilities. Indeed, social sustainability issues, regarding poor working conditions and the protection of human rights in factories placed in "low-cost" countries and hosting offshored activities from developed countries, have forcefully arisen after the tragedy of the Rana Plaza collapse on the 24th April 2013¹⁸.

Moreover, consumers' increasing attention towards the theme of corporate social responsibility led most of them to change their consumption habits and, therefore, firms to address this issue by adopting more ethical behaviours. In this framework, reshoring demonstrates the organization's willingness to implement behaviours in line with ethic, respect for the law and for human rights and thus represents a potential solution to enhance the image of the company. In this regard, Tate et al. (2014) address the topic of social and environmental sustainability when a company is about to decide its manufacturing locations. Furthermore, a research conducted by Cotton Incorporated (2014) revealed that consumers think that clothing manufactured overseas have a greater negative environmental impact compared to those produced domestically. Further studies

¹⁸ Rana Plaza was a factory located in Bangladesh, near Dakka, where thousands of people worked every day in inhumane conditions for the biggest western multinational corporations. Its collapse in 2013 killed more than a thousand of workers and this stirred consciences of MNCs which started to take the compliance with human rights in such factories more seriously, conducting more factories' inspections, even if we are still far from reaching a meaningful improvement in working conditions in developing countries.

confirm that some consumers associate “Made in America” with environmentally sustainable (Ellram et al., 2013; Gray et al., 2013). Besides, Ashby (2016) studied the relationship existing between sustainability and reshoring and discovered that localising production activities in the home country is essential to implement and maintain a sustainability strategy.

To sum up what has been stated hitherto, the emblematic Joubioux conceptual model is presented. The following conceptual model summarises the process driving companies from offshoring to reshoring.

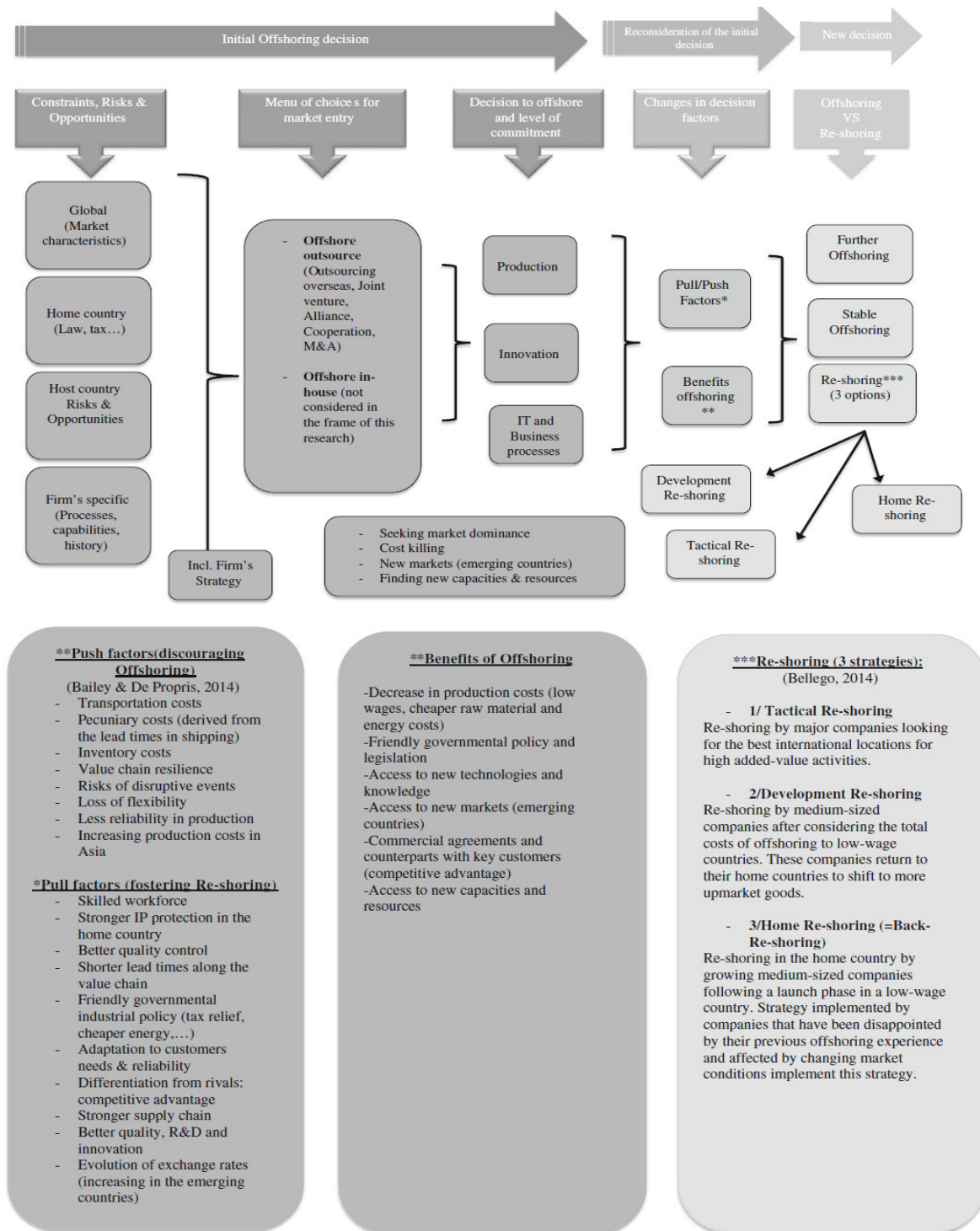


Figure 4: Conceptual model for location decision-making

Source: Joubioux, C., & Vanpoucke, E. (2016). *Towards right-shoring: a framework for off-and re-shoring decision making*. *Operations Management Research*, 9(3-4), 129-130

Focusing on the part of literature which uses the contingency theory in order to explain phenomena, the most important research paper applying it to the study of reshoring in the one of Benstead et al. (2017). They identify eleven contingency factors for reshoring: “Size of the firm,” “Ownership modes,” “Government policy,” “Capital intensiveness,” “Bandwagon effect,” “Market segments,” “Price points,” “Bulkiness of the product,” “Customized products,” “Management’s perception of cost,” and “Emotional factors”. Afterwards, they categorize the eleven contingency factors identified into three categories: (1) company- (and industry-) related factors encompassing the size of a firm, ownership modes, government policy, capital intensiveness, and bandwagon effects; (2) product-related factors composed of the market segments, price points, the bulkiness of product and customized products; (3) behavioural- (or individual-) related factors consisting of management’s perception of cost and emotional factors.

Much ink has been split on the decline of companies’ adoption of the offshoring strategy and on the topic of reshoring as a possible sourcing solution. As far as the challenges faced by an offshoring company, the extant literature mentions the rise of raw material and energy costs, increasing labour and logistics costs (Tate 2014; Tate et al. 2014), concerns about lead time (Fratocchi et al. 2014; Kinkel and Maloca 2009), issues regarding the quality level (Arlbjørn and Mikkelsen 2014), lack of proximity of production to the R&D department (Stentoft et al. 2015) and increased supply chain risks (in the form of currency volatility, for instance) (Tate et al. 2014). Furthermore, according to Stentoft et al. (2016) these challenges are also among the disclosed drivers for reshoring production to home countries. More specifically, Stentoft et al. (2016) comprehensively analysed reshoring drivers classifying them in seven categories: costs (i.e., labour costs, coordination/transaction costs, logistic costs, energy costs); quality; access to skills and knowledge (i.e., availability of skilled workforce, proximity to R&D); market (i.e., loyalty to the home country, “made in” effect); time and flexibility (i.e., lead time, production and delivery reliability, demand volatility); risks (i.e., threat of losing know-how and intellectual property, supply chain risks); other drivers (i.e., government incentives, focus on core activities). In a study published the same year, Fratocchi et al. (2016) suggested another classification of reshoring drivers along two dimensions: the level of analysis (external environment vs. internal environment) and the goal (customer perceived value vs. cost efficiency).

As far as the variation of the macro-economic variables driving firms to a revision of their location strategies (prompting to reshoring) in the last decade, Luca Ferrucci and Antonio Picciotti (2017) have detected three main factors which have changed the competitive environment so far.

Firstly, a sizable increase in the cost of labour in the main offshoring destinations, namely China, has been recorded. Rising labour costs in China is a major driver in the shift to reshoring.

The authors cite the International Labour Organization which, in 2013, reported that *“wages increased on average at double-digit annual rates over the full decade (...). Using these official figures of an annual rate of growth of 12 per cent per annum, real average wages in China have more than tripled over the decade from*

2000 to 2010, prompting questions about the possible end of “cheap labour” in China”¹⁹. Moreover, the study proposed by Sirkin et al. (2011) indicates that the average Chinese wages rose by 150 % from 1999 to 2006. In addition to this, uncertainty characterizes currencies in Chinese market since the Chinese currency, the yuan (CNY), began to appreciate relatively sharply in the last years. These conditions explain why China’s (and other Asian countries’) competitive advantage is eroding, causing a decline in its international attractiveness. (Yang et al., 2010).

Secondly, delocalising firm’s production activities to a foreign country entails that the firm has to invest in monitoring, control and distribution activities. This can lead to the necessity of redesigning the products to make them more standardized and easier to realize. The company operating in this context must strengthen the monitoring of the quality of the products, processes as well as activities involving distribution and logistics (Bontempi and Prodi, 2009).

Thirdly, the authors claim that some large banks are using indirect means in order to prompt companies to relocate their activities back to their home country. For instance, some banks reward value chains (mainly through lower interest rates) located within the national border but not those offshored to foreign countries.

Dwelling on the first factor outlined by Luca Ferrucci and Antonio Picciotti, it’s interesting to mention the study conducted by O’Marah and Lee (2013) which reports that China has lost its appeal as an offshoring destination and that US companies rather prefer to nearshore their production activities to the close Mexico. The last finding is also supported by the results of the researches carried out by Ellram et al. (2013). Furthermore, a recent study conducted by Goldman Sachs (Delaney et al.2017) reveals that, for the first time, the Foreign Direct Investments into China supported by companies of United States of America have been overcome by the Chinese companies’ FDI into United States. Remaining on the topic of the comparison between US conditions and Chinese ones, a survey conducted by the Boston Consulting Group in 2013 reported that more than 30% of the executives working in US manufacturing industry stated that their company was coping with an expansion of its production capacity within the United States, while only 20% stated that their firm was increasing its productive presence in China (Sirkin et al.2014). The same study carried out by the Boston Consulting Group (Sirkin et al. 2014) found out that the formerly important gap existing between labour cost in United States of America and China, but in general between developed and developing economies, has decreased to the point that it’s actually more convenient and cheaper to produce some products domestically.

Overseas, Kinkel and Maloca (2009), studying German companies, estimated that between one-sixth and one-quarter of the firms which have previously offshored their production activities, have reshored their operations back to their home country.

According to Enrico Baraldi et al. (2017), from an IMP (Industrial Marketing and Purchasing) perspective, reshoring lies in the re-embedding of previously offshored activities within the original domestic network

¹⁹ International Labour Organization (2013) Global Wage Report 2012/13. Wages and equitable growth, Geneva.

context, the same that hosted them in the beginning. Re-embedding previously offshored activities implies the recreation of activities links and new business relationships, namely connections between the new reshored activities and those which have always been performed in the original domestic context. The re-embedding of activities in the network likely necessitates some changes within the network. Criticalities may occur if the actors directly concerned by these changes resist to them or if the affected network has undergone an evolution while those activities were offshored so that the re-embedded activities find themselves in an environment which is not so favourable anymore.

As far as the drivers prompting companies to reshore are concerned, literature has identified the following as the most relevant ones: labour costs increase in host countries which caused a reduction in the wage advantage gap (Tate et al. 2014); poor product quality (Fratocchi et al. 2014); closeness of production facilities to R&D department (Tate 2014); shrinking market size for the market to which operations were offshored (Kinkel 2012); unavailability of skilled and qualified workforce (Tate et al. 2014); unrealised savings due to higher-than-expected costs (transport costs, hidden costs) also risen because of general inflation (Gylling et al. 2015); higher costs for inventory caused by late deliveries (Gray et al., 2013); availability of new technologies and automation (Stentoft, Mikkelsen, and Johnsen 2015; Tate et al. 2014); availability of proper infrastructures and skilled workforce in the home country.

Other reshoring drivers have been pinpointed by academics. For instance, Ancarani et al. (2015) classified reshoring drivers into four categories: (1) Opportunities for cost reduction, (2) Cultural, political, legal, geographical, economic, and infrastructure features of the host country, (3) Availability of resources and (4) Proximity to customers and other network nodes. Also, Benstead et al. (2017) identified four categories of reshoring drivers:

- Risk, uncertainty and ease of doing business: drivers aimed at the reduction of risk and uncertainty connected with the “shoring” decision and/or at the improvement of the processes’ efficiency. Risks may refer to currency volatility, supply chain, inflation.
- Cost-related drivers: drivers which entail direct and hidden costs in foreign activities which can be reduced if the firm relocates those activities to the home country. Indeed, firms undertake offshoring strategies in order to lower their total cost of production.
- Infrastructure-related drivers: drivers regarding the necessary organizational and physical structure to run a business.
- Competitive priorities: “Non-cost-related” or hidden cost-related drivers are included in competitive priorities. Quality is encompassed in this category as a hidden cost, together with lead time and the protection of the intellectual property.

Literature attempted to address the question on *how* firms relocate the prior offshored production activity to their domestic country and therefore, to investigate the entry mode adopted by reshoring companies. The most relevant study on the reshoring entry mode is the one conducted by Li Wan et al. (2018) which resulted in a

conceptual framework illustrating that the reshoring entry mode is determined by industry-, firm-, country- and project-specific factors as well as by the offshoring entry mode, as the Fig. 5 shows.

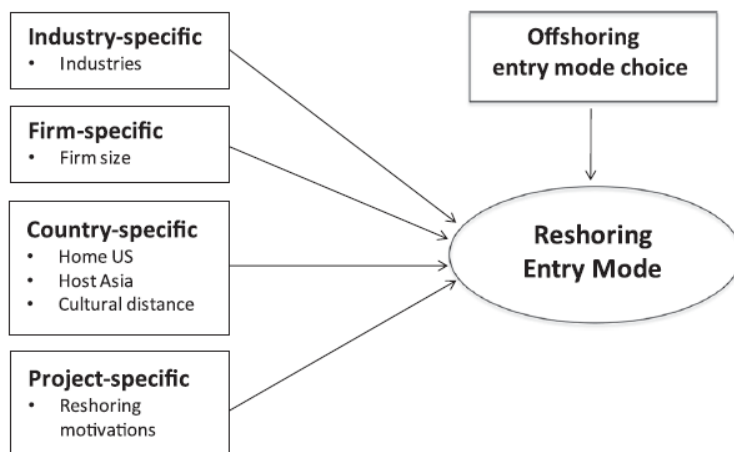


Figure 5: Reshoring Entry Mode

Source: Wan, L., Orzes, G., Sartor, M., Di Mauro, C., & Nassimbeni, G. (2018). *Entry modes in reshoring strategies: An empirical analysis*. Journal of Purchasing and Supply Management, p. 4

From a risk management perspective, the study conducted by Francesco Ciabuschi et al. (2019) addresses reshoring as a question of risk management and postulates four propositions about the likelihood of the implementation of a reshoring strategy. According to the postulated propositions, the likelihood of reshoring increases: the lower the availability of resources required to increase the commitment (Proposition 1); the greater the time required to learn (Proposition 2); the higher the relative risk of host-country compared to home-country (Proposition 3); the lower the reshoring-process specific risk (Proposition 4). These propositions allow the development of a framework able to evaluate the company’s “reshoring readiness”, also dependent on managers’ risk perception. Moreover, this study identifies three types of risks connected with reshoring which represent potential managerial challenges: home-country and host-country related risk, and reshoring-process specific risk.

As far as the study conducted by Barbieri et al. (2017) is concerned, in order to describe the reshoring phenomenon, the authors structure their study around the “5W and 1H” of reshoring, namely *what, who, where, when* and *how*. They analysed the extant body of literature on the topic of reshoring and found 39 articles addressing the topic of Why do firms reshore, 30 for the What is reshoring, 26 for the Who reshore, 13 for the Where do companies reshore to and from, 6 for the How companies reshore and, finally, 5 for the When did companies offshore (and when did they reshore). This clearly entails that academics have paid lower attention to the question When and How firms reshore while focused more on the reasons driving reshoring (Why) and on the definition of the reshoring notion (What).

As far as the studies related to the size of companies undertaking reshoring, the findings differ among the papers. While Kinkel and Maloca (2009) claimed that large firms have a higher propensity to reshore their manufacturing activities than small and medium companies, Canham and Hamilton (2013) argued that small

and medium companies are more likely to implement reshoring than large organizations. However, both these researches are conducted on a single-home-country basis, thus the conclusions may be affected by the characteristics of the home-country considered. A study examining multiple home countries is the one carried out by Fratocchi et al. (2016) which depicts that the number of large firms undertaking reshoring is only marginally higher than the SMEs implementing it (for the major part headquartered in North America). Overall, these findings seem to indicate that both large and SMEs do reshoring. However, Ancarani et al. (2015) show that SMEs tend to reshore their manufacturing processes earlier as compared with large firms. Concerning the *When* of reshoring, the most relevant studies up to date are the one conducted by Ancarani et al. (2015) which coped with the length of the period of offshoring prior to reshoring for manufacturing firms and the study carried out by Kinkel (2012) which tackled the impact of the global financial crisis started in 2008 on reshoring. The former study found that the time span related to offshoring depends on several factors: industry, company size, reshoring governance mode, host country, drivers. The latter study comes to the conclusion that the reshoring phenomenon did not suffer major changes during the 2008 financial global crisis while the number of German firms offshoring their production activities abroad decreased.

On the basis of the outlined literature, “The internalization strategies of enterprises” framework realized by Luca Ferrucci and Antonio Picciotti²⁰ provides a visual presentation of the above-mentioned concepts along two dimensions: the level of market orientation and the geographical extent of the implemented location strategy.

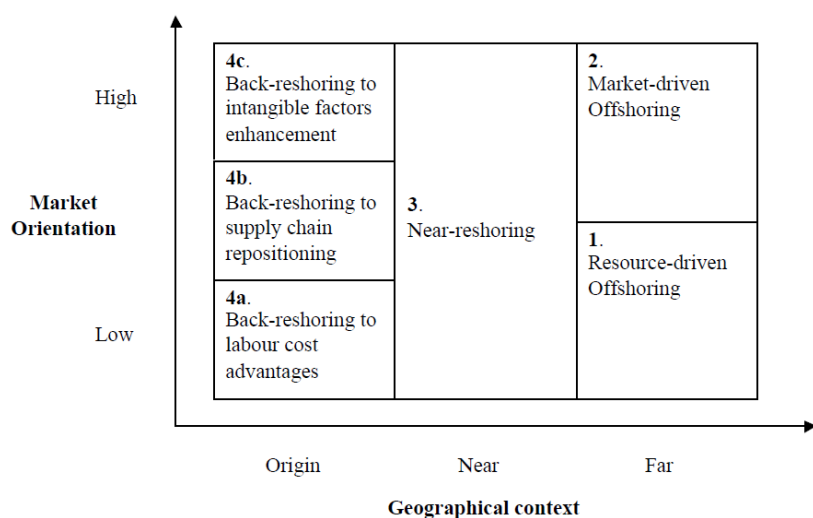


Figure 6: The internalization strategies of enterprises

Source: Ferrucci L, Picciotti A., *Antecedents, Modes and Effects of Back-Reshoring Strategies: The Experience of Italian Enterprises*, International Journal of Management Cases, p. 7.

²⁰ Ferrucci L., Picciotti A., *Antecedents, Modes and Effects of Back-Reshoring Strategies: The Experience of Italian Enterprises*, International Journal of Management Cases.

1.4. Empirical evidences of reshoring in the world

Reshoring is increasing its presence in policy and business discussions on the future of manufacturing across OECD countries. This section is going to provide quantitative data on the scale of the phenomenon worldwide, in order to understand the actual spread of it.

The policy attention to the topic of reshoring is particularly remarkable in the United States, where it is considered as a firm's strategy expected to raise the employment rate and to revitalize American manufacturing industry. One of the most significant moment of this attention in the American recent history is at the start of former President Barack Obama's second term, when he hosted the "Insourcing American Jobs" Forum at the White House²¹ focused on companies choosing to bring jobs back to the US and to increase their investments there. Moreover, the American consulting company Boston Consulting Group conducted two relevant studies on reshoring. The first study analysed 200 US large firms through a survey and found out that more than half of them were undertaking, or planning to undertake, reshoring initiatives within the following two years (Boston Consulting Group, 2011). The second study carried out by the BCG has estimated that increasing exports together with US-based firms' reshored activities can generate between 2.5 million and 5 million jobs in the United States by 2020 (Boston Consulting Group, 2013).

The topic of reshoring did not draw the same political attention in Europe as in the US. One reason explaining the lower emphasis on the topic is that, overall, European manufacturing have resorted to offshoring on a lesser extent compared with American firms. Countries belonging to Europe tackled the issue differently.

France developed initiatives for reshoring implementing them together with measures aimed at discouraging French companies' offshoring. In particular, the Colbert 2.0 is a software tool made available by the Ministry of Economics and Finance for companies willing to know their readiness for reshoring. Moreover, the Ministry of Industrial Renewal, in 2013, carried out a survey to understand the scale of the government's (or institutions') support to reshoring and it turned out that more than half (60%) of the companies which have reshored their production activities declared to have benefited from the central government's and/or the local authorities' support.

The United Kingdom sees reshoring as a means to rebalance its economy and, up to date, implemented two concrete initiatives: the "Reshore UK service"²² launched by UK Trade & Investment together with the Manufacturing Advisory Service (MAS) to help firms in the assessment of their capabilities, reshaping of their global value chains and in the process of research of national suppliers; the "Advanced Manufacturing Supply Chain" initiative, which supports projects whose goal is to enhance UK supply chains' competitiveness and/or to encourage new suppliers to locate their business activities within the United Kingdom.

²¹ The White House Office of the Press Secretary, *President Obama Hosts "Insourcing American Jobs" Forum at the White House*, January 7th, 2012, <https://obamawhitehouse.archives.gov/the-press-office/2012/01/07/president-obama-hosts-insourcing-american-jobs-forum-white-house>.

²² The project formally ended on 31 March 2016.

Germany considers reshoring as an important initiative to boost its manufacturing sector.

Italy faces the phenomenon mainly from the business perspective of the districts calling the offshored activities back to the domestic production and to the “Made in Italy”. A pilot project started by Mise (Italian Ministry of Economic development) in collaboration with consulting company PWC and Smi (*Sistema moda Italia*) was implemented in order to attract previously offshored manufacturing activities in two Italian regions: Puglia and Veneto, well-known for the presence of important industrial districts in the clothing, textiles and footwear industry. However, differently from USA where reshoring is mainly prompted by government incentives, the important scale of the phenomenon in Italy is mainly due to unique characteristics typical of manufacturing processes and plants located in Italy. An analysis conducted by an Italian research group (the Uni-CLUB MoRe reshoring) made of academics from Italian universities (University of Catania, L’Aquila, Udine, Bologna, Modena and Reggio Emilia) showed that among the 297 reshoring cases identified in Europe, 88 had as a home country Italy. Thus, Italy plays an important role in the framework of European reshoring phenomenon. As of December 2015, the major host country where Italian companies offshored their production and from which they decided to reshore it back to Italy is China, followed by East Europe while the most affected industry by reshoring phenomenon is the clothing sector, followed by leather goods sector and computers and electronic products.

A focus on the European case and the United States is provided in the following sub-sections.

1.4.1.1. The European case

The Future of Manufacturing in Europe (FOME)²³ is an explorative study proposed by the European Parliament and conducted by the European Foundation for the Improvement of Living and Working Conditions (Eurofound) under the delegation of the European Commission’s Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs. It is the most updated source which collects information about European reshoring cases since it has been published in 2019 and refers to analysis conducted within a period running from 2014 and 2018. Within this explorative study, several projects have been carried out. Among these, the European Reshoring Monitor analyses and measures the reshoring phenomenon, namely the return of previously offshored jobs to Europe²⁴. In particular, the European Reshoring Monitor is a project conducted by four Italian Universities (Università degli studi di Udine, Università di Bologna, Università degli studi di Catania, Università degli studi dell’Aquila) in the form of a multi-annual research (from 2014 to 2018). The researchers structure their work collecting information about individual reshoring cases and organising them into a constantly updated online database²⁵. The European Reshoring Monitor’s goal is to identify, analyse and summarize evidence on reshoring of value chain activities (manufacturing and others) within the European

²³ Eurofound (2019), The future of manufacturing in Europe, Publications Office of the European Union, Luxembourg.

²⁴ *Ibidem*.

²⁵ <https://reshoring.eurofound.europa.eu/>

Union. As a complementary task, the European Reshoring Monitor also develops and updates an online database of reference material on the topic of reshoring, including academic papers, consultancy and policy reports, key media articles, regional and national policy initiatives. As of February 2019, the European Reshoring Monitor encompasses 253 reshoring cases, reported from 2014 to 2018. The project considers two types of situations:

- Companies reshoring the previously offshored value chain activities to their home country (within the European Union).
- Companies reshoring to any EU country value chain activities previously offshored to a non-EU country.

In light of the definitions explained in the previous sections of this Thesis, the first type refers to the case of reshoring, while the second refers to the case of nearshoring. However, among the 253 reshoring cases recorded, the percentage of firms which fall within the first category (reshoring) accounts for the majority, in particular 92%.

Fig. 7 illustrates the number of reshoring initiatives implemented within the period running from 2014 to 2018, classified by country, as for the analysis of the European Reshoring Monitor.

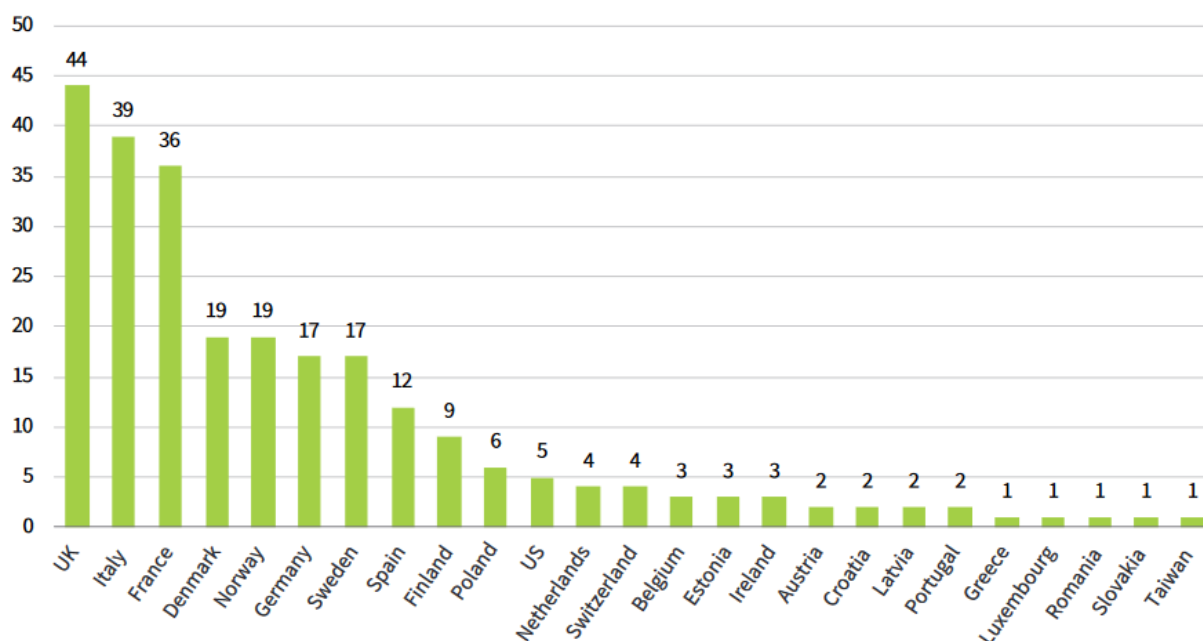


Figure 7: Number of reshoring cases by country, 2014–2018

Source: Eurofound (2019), The future of manufacturing in Europe, Publications Office of the European Union, Luxembourg, p. 20

Figure 7 depicts that the higher number of reshoring cases within the EU can be registered in the United Kingdom, Italy and France, with respectively 44, 39 and 36 cases of reshoring. Subsequently, Denmark, Norway, Germany and Sweden which count respectively 19, 19, 17 and 17 number of registered reshoring cases. These findings are below the expectations for an economy as developed as German’s, while they are relatively high for countries such as Denmark, Norway and Sweden. Furthermore, these conclusions testify to

the historical development of the reshoring phenomenon: while reshoring has been initially undertaken by western European countries (namely, Italy, UK, France and Germany), data confirm that the adoption of such strategy has broadened reaching northern and eastern Europe (namely, Denmark, Norway, Sweden, Finland, Poland), too.

According to the results published by the European Reshoring Monitor, half of the analysed cases reshored their production activities from China, followed by India, Poland and Germany.

Furthermore, data indicate that there is a slight difference between the number of large firms undertaking a reshoring strategy compared with the number of SMEs reshoring their value chain activities. In more details, the percentage of large firms implementing a reshoring strategy within the period 2014-2018 accounts for 59%, while the amount of small and medium enterprises undertaking it accounts for 41%. Overall, these findings seem to indicate that both large and SMEs do reshoring.

As far as the time of reshoring is concerned, in 2014 only 32 reshoring cases were reported within the EU. This number witnessed an increase in the year 2017 reaching its peak with 74 reshoring cases but dropped in 2018 with 46 reshoring cases registered, even if it's possible that some reshoring initiatives implemented in 2018 have not been reported yet.

With regard to the industries concerned by reshoring, the European Reshoring Monitor indicates that the most affected one is the "Manufacturing" industry with 218 cases. Then, "Information and Communication" industry which accounts for 12 reshoring cases, followed by "Financial and insurance activities" with 9 cases. Notwithstanding the low number of reshoring cases in the "Information and Communication" industry, it's interesting to highlight that this sector witnessed to a notable increase in employment attributable to reshoring. In more detail, the sector gained 2,411 new (reshored) jobs, the majority of which owed to the reshoring of the company Vodafone to United Kingdom (2,100 call centre jobs).

Figure 8 focuses on the most sizable industry affected by reshoring which is "Manufacturing" and illustrates the distribution of reshoring initiatives among ten subsectors: C14 – Manufacture of wearing apparel; C10 – Manufacture of food products; C28 – Manufacture of machinery and equipment; C26 – Manufacture of computer, electronics and optical products; C27 – Manufacture of electrical equipment; C30 – Manufacture of other transport equipment; C25 – Manufacture of fabricated metal products, except machinery and equipment; C29 – Manufacture of motor vehicles, trailers and semi-trailers; C32 – Other manufacturing; C31 – Manufacture of furniture²⁶. The sector "Manufacturing" as a whole is estimated to have generated a percentage of total job gains arising from reshoring equal to 79% within the EU.

²⁶ See http://ec.europa.eu/competition/mergers/cases/index/nace_all.html for a comprehensive list of NACE codes.

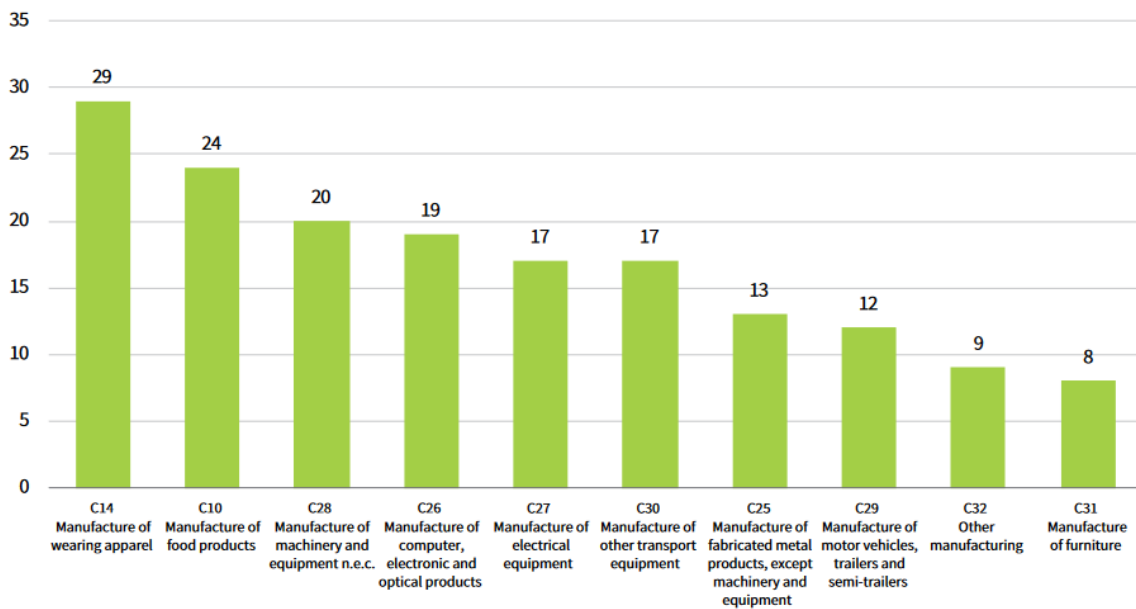


Figure 8: Reshoring case frequency by subsector (within the “Manufacturing” sector)

Source: Eurofound (2019), The future of manufacturing in Europe, Publications Office of the European Union, Luxembourg, p. 21

Note: Chart excludes sectors with fewer than eight reshoring cases

As far as the reasons driving European companies to reshore their value chain activities are concerned, the European Reshoring Monitor identified 56 reshoring motivations.

Figure 9 portrays the most recurrent (at least 10 times) stated reshoring motivations.

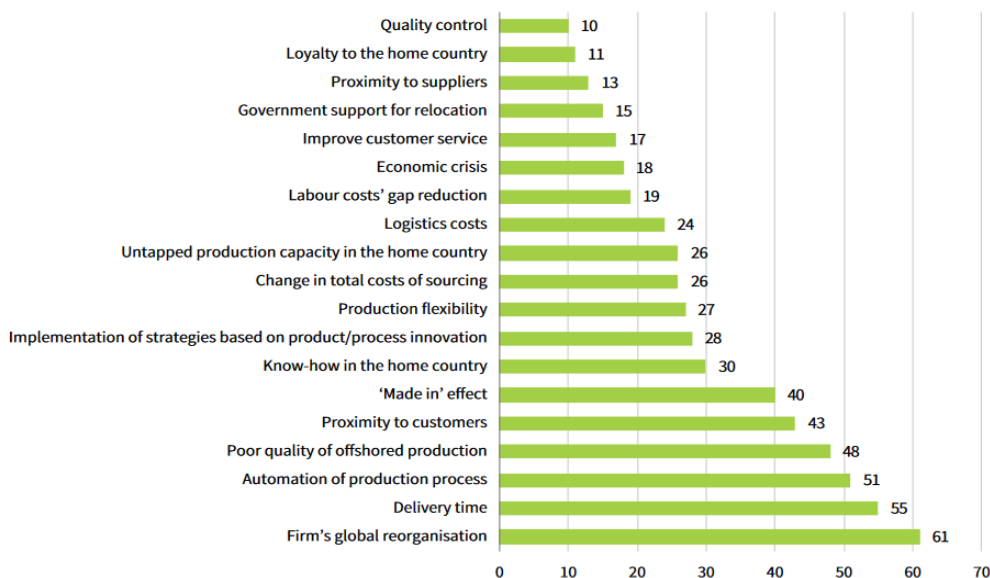


Figure 9: Reshoring motivations

Source: Eurofound (2019), The future of manufacturing in Europe, Publications Office of the European Union, Luxembourg, p. 21

Note: Multiple motivations can be indicated for a single reshoring case

Going in depth with the analysis of the phenomenon within EU, the European Reshoring Monitor also provides information about the drivers related to each specific subsector encompassed in the “Manufacturing” sector. The findings are shown in Figure 10. The Figure clearly conveys that only the “Made in” driver is strictly connected with a specific industry (the wearing and leather goods industry), while the other motivations are associated with different industries.

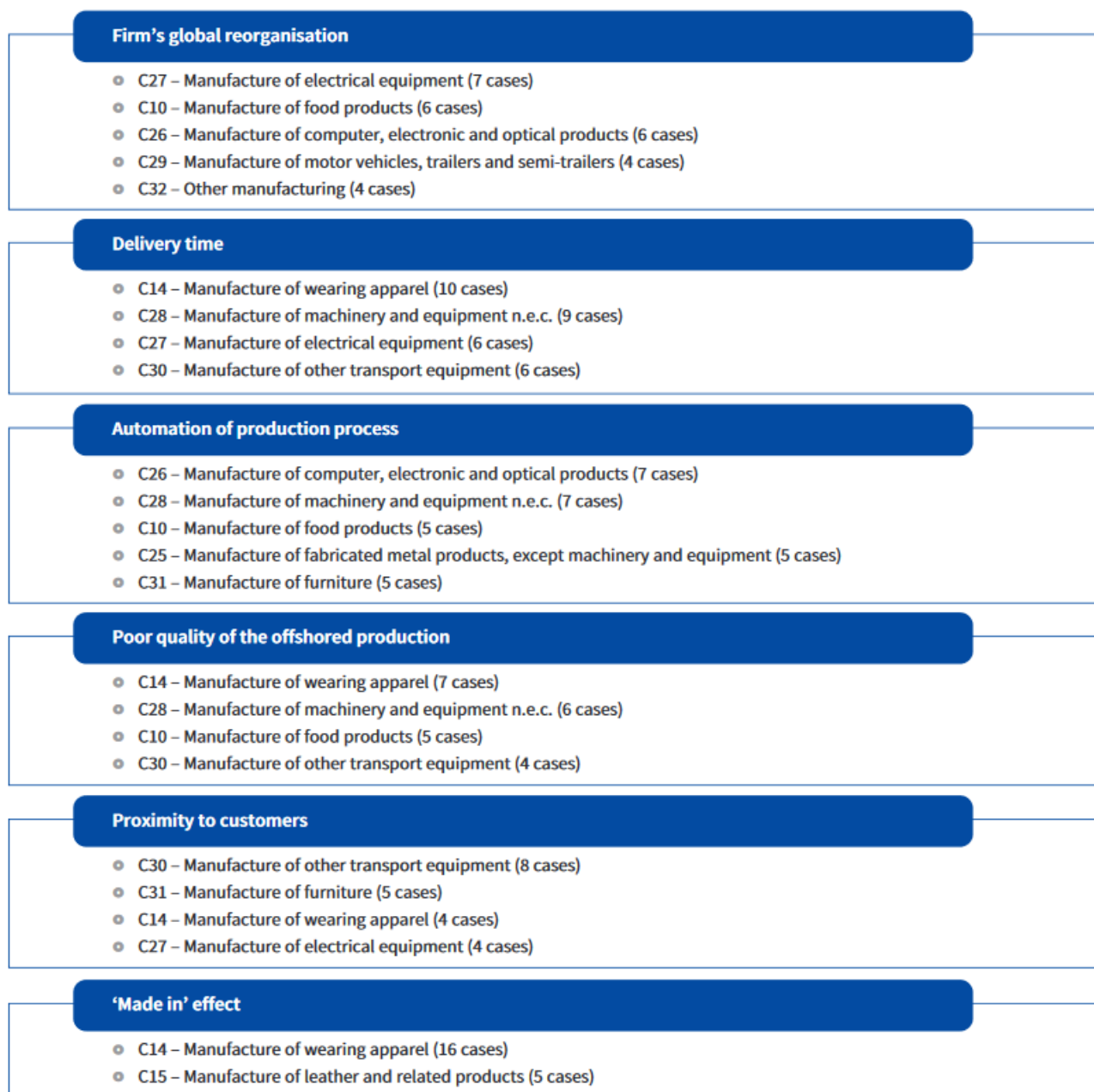


Figure 10: Reshoring motivations sorted by manufacturing subsectors

Source: Eurofound (2019), The future of manufacturing in Europe, Publications Office of the European Union, Luxembourg, p. 22

Moreover, the findings show that reshoring drivers tend to vary also by country. For instance, quality issues experienced in offshored host countries is the most mentioned driver for German companies; the “Made in”

effect is the most relevant driver for Italian companies; a combination of closeness to customers, delivery times, product quality and “Made in” effect is prominent among the UK firms.

Concerning the new jobs generated by the wave of reshoring to EU countries, data are available only for a part of the cases (41% of the cases, which corresponds to 99 reshoring initiatives). According to the available information, these 99 reshoring initiatives generated a total of 12,840 new jobs in the period running from 2014 to 2018. However, from the analysis of the data related to job gains, three issues emerge. Firstly, some companies reshore their value chain activities to leverage untapped production capacity within the domestic country and, in this case, reshoring entails a limited employment generation. Secondly, automation is covering more and more a prominent position among the reshoring drivers and this does not prompt the generation of new jobs (or, at least, not a significant amount of new jobs). Thirdly, companies may undertake a reshoring initiative in order to curb the strains provoked by unions and local communities in the home country when there is a real risk of employee layoffs or factory closure.

1.4.1.2. The American case

The United States of America is the country which registered the highest number of reshoring cases due to specific factors which enabled the process, first of all, economic policies established by the government. A report by the consulting group PWC reports, in 2015, that more than 20% of large US firms were undertaking reshoring initiatives²⁷. The government trade policy plays a crucial role in the increasing attractiveness of USA as a site for manufacturing plants. This reflects the Obama administration’s decision of providing incentives to firms which decide to reshore their previously offshored production. After Obama’s second term expiration, the following US President, Donald Trump, have continued on this road. Nowadays, two important projects tackle the topic of reshoring within the US: the *Reshoring Institute* and the *Reshoring Initiative*.

The Reshoring Institute is a non-profit association which provides information, research and support for firms starting, restarting, or expanding their production activities in the US²⁸. On a practical level, they plan to achieve this goal through four channels: the Reshoring Institute Consulting Services which provides expert guidance on companies’ global manufacturing strategy; Reshoring Research and Publications; Manufacturing Industry Thought Leadership (the Institute shares information about researches and forecasts and guidance for best practices); University Internships in Manufacturing, Engineering, and Business. Ultimately, they provide significant insight on reshoring, encouraging and practically supporting companies which want to reshore their value chain activities.

The Reshoring Initiative is one of the most important non-profit organisation, chaired by Harry Moser, whose mission is to support companies in the assessment of their total cost of offshoring in order to unveil the misconception that offshoring is always cheaper and to bring manufacturing jobs back to the United States.

²⁷ PWC, *Reshoring: keep calm and go back home*, 2015.

²⁸ The Reshoring Institute, <https://reshoringinstitute.org>

In the last report of The Reshoring Initiative, issued in 2018, data on reshoring and FDI in the USA are reported. The evidence depicts that, in 2018, the record number of 1,389 companies announced the return of 145,000 jobs. This figure brings the total number of manufacturing jobs generated by reshoring to 249,000 from 2010 to present day. As Figure 11 shows, the number of jobs generated by reshoring together with FDI (cumulative evidence) increased significantly every year from 2010 to present day. The organization explained that this steady increase is based on US competitiveness which is growing due to corporate tax, regulatory cuts and increased awareness of the total cost supported when offshoring. Moreover, figure 12 depicts a plot showing the jobs announcement generated by the two phenomena (reshoring and FDI) distinctly. The two phenomena started to develop at similar rate since 2016.

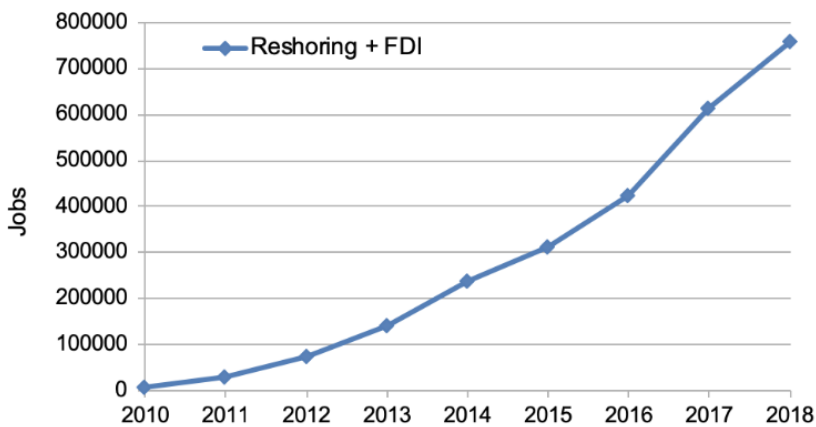


Figure 11: Cumulative manufacturing jobs (2010-2018)

Source: Reshoring initiative, Reshoring Initiative 2018 Data Report, 2018, available at: [http://reshorennow.org/content/pdf/Reshoring Initiative 2018 Data Report.pdf](http://reshorennow.org/content/pdf/Reshoring_Initiative_2018_Data_Report.pdf)

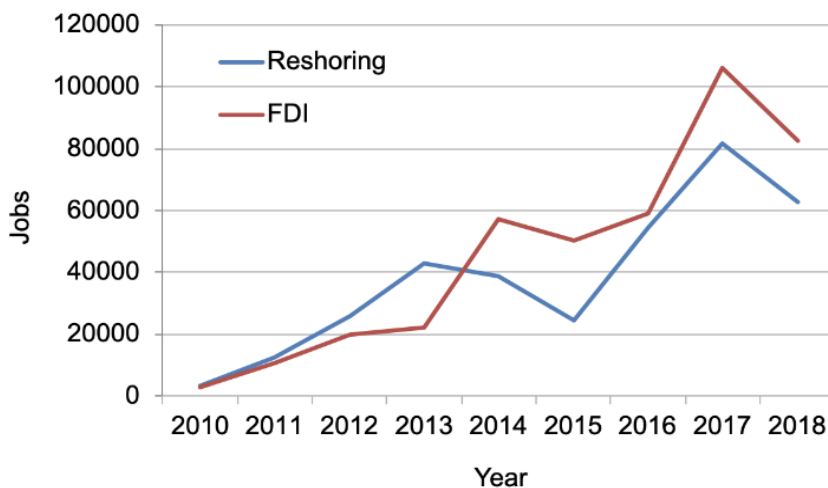


Figure 12: Jobs Announcement by year (2010-2018)

Source: Reshoring initiative, Reshoring Initiative 2018 Data Report, 2018, available at: [http://reshorennow.org/content/pdf/Reshoring Initiative 2018 Data Report.pdf](http://reshorennow.org/content/pdf/Reshoring_Initiative_2018_Data_Report.pdf)

The main country from which American firms have reshored their value chain activities is China which accounts for 59% of the total of reshoring cases, followed by Mexico accounting for 18% and Japan with 6%. As far as the industries affected by the reshoring phenomenon are concerned, it is possible to rank them in terms of numerical importance as follows: transportation equipment; computer and electronic products; electrical equipment, appliances and components; chemicals; plastic and rubber products; apparel and textiles; wood and paper products; machinery; fabricated metal products; medical equipment. According to the findings, it is interesting to notice that comparing the United States with the European case, there are differences regarding the main sectors affected by reshoring, namely transportation equipment, computer and electronic in the former case and manufacturing (mainly wearing apparel) in the latter case.

Concerning the main drivers leading US companies to reshore their activities back to their home country, the main ones are: quality issues in the host country, re-assessment of the total cost of offshored production, delivery times, government incentives, proximity to market and customers, availability of skilled workforce and “Made in USA” effect. However, an analysis conducted by the *Uni-CLUB MoRe Reshoring* demonstrates that while the drivers leading European firms to reshore are mainly related to consumers’ perception of the value and the quality of firms’ products, the drivers prompting American companies to reshore their activities refer mainly to cost-advantages²⁹.

1.5. Conclusions

The first chapter of the current Thesis introduced the topic of international manufacturing location decisions and, in particular, it focused on the phenomena of offshoring and reshoring. First, offshoring and reshoring have been presented from an historical standpoint. The historical framework demonstrates that offshoring has been widely implemented by companies which wanted to reduce labour costs, above all, and preserve and boost their competitive advantage, since the 1980s. The international chessboard witnessed to the outbreak of the offshoring phenomenon starting from the 1990s, when the offshoring strategy gave birth to a real trend among the Western companies’ sourcing decisions. Indeed, manufacturing activities relocation to a foreign country became the only way to stay competitive in the global market and to face the fierce international competition.

The first chapter explains why, although the offshoring phenomenon is not running low, in the last decade a counter trend has emerged in the international business scenario: the reshoring phenomenon. In fact, companies which had previously offshored their production activities to a foreign country (either by insourcing or outsourcing) started to reconsider their strategy, since offshoring decisions have proved to be not so profitable as managers thought and to have some drawbacks. Moreover, external environment’s conditions changed due to financial crisis, changes in total cost of sourcing, customers’ attention to products’ origin

²⁹ Barbieri, P., & Fratocchi, L. (2017). *Le peculiarità del reshoring manifatturiero in Italia: un'analisi basata su dati secondari*. *L'industria*, 38(3), p. 334.

issues, automation of production processes in Western countries, and so forth. Thus, companies started to redesign their global value chains relocating the offshored processes back to their home country, within the domestic borders.

The exposition of the extant literature on the phenomena of offshoring and reshoring shows that locational aspects of a company's value chain has gained growing attention by scholars, academics, executives, practitioners and policymakers. In light of this, the international literature has released a sizeable and continuously growing amount of publications on the offshoring and reshoring phenomena, sign that the phenomenon of reshoring is growing in importance in literature and in the business field. The empirical evidences of reshoring in the world, presented in paragraph 1.4., confirm the growing importance of reshoring in the international panorama. Indeed, the United States' policy of recent years considered reshoring as a means to increase the employment rate and to revitalize American manufacturing industry; Europe dedicated policy attention to the topic, too. This has led single nations to adopt legislative initiatives promoting reshoring. Overall, Chapter 1 aims at demonstrating the importance of international manufacturing location decisions and, in particular, the growing relevance of the phenomenon of reshoring. Reading the chapter, it's possible to understand that this goal is reached through the description of the historical framework outlined in the introduction, the literature review and the presentation of the empirical evidences of the reshoring phenomenon in Europe and United States of America. This overview about the reshoring phenomenon and, in general, the international manufacturing location decisions, prepares the ground for the theory-based framework which will be outlined in the following chapter.

This chapter allows the reader to conclude that the reversal in the "shoring" decision-making trend seems to teach that the world in which companies operate has currently reached a level of complexity which doesn't enable them to make a location production decision on a mere cost-advantage basis. Understanding why companies offshored their manufacturing activities and then reshored them back to their home country and what's the economic and historical framework in which these practices developed provides the basis to grasp the relation between the two phenomena, which will be explained in the following chapters in terms of drivers. Having understood the complex environment where firms operate, location decision-making should be implemented in a dynamic perspective, considering more than one driver. Indeed, the static perspective of some decades ago, nowadays fails to capture the global dynamics of today's markets.

2. CHAPTER 2: A theory-based framework about production location decisions' drivers

2.1. Introduction

During the last decades, industrial policies have been designed to boost the industrial economy adopting various means, among which there are incentives for companies in order to bring previously offshored production activities back to the home country. According to the European Parliamentary Research Service³⁰, the availability of a strong manufacturing sector for a country means:

- Job creation. In this regard, a US study estimated that for every 100 manufacturing workers, 250 jobs are created in other sectors (The Manufacturing Institute and Deloitte, 2015).
- Higher investments in research and development. In this regard, investments in R&D lead to the potential generation of crucial innovations and key intellectual property, hence, to high-value jobs.
- Potential for higher exports and reduced imports.

In this framework, manufacturing sector is of key importance for a national economy and this is the reason why a great deal of attention is paid to this sector, in order to make it stronger.

The objective of this chapter is to develop a theory-based framework on offshoring and reshoring drivers. The framework, which is going to be described, is going to be applicable to concrete cases of value chain location decisions, in order to define and interpret the behaviour of companies undertaking reshoring strategies.

From a methodological standpoint, the framework is deductively generated basing on the extant literature and other documents (articles from newspapers, national and international specialized economic periodicals, consulting groups' reports, international organizations' documents). Accordingly, these documents have been collected, studied, used to outline the extant literature and the other sections of the first chapter and, on the basis of the overall analysis, are going to constitute the ground for the framework on offshoring and reshoring drivers delineated in Chapter 2 and applied in the empirical analysis encompassed in Chapter 3. Therefore, from this point on, the Thesis is going to follow a two-stage approach: (1) deductive development of the conceptual framework grounded on systematic literature review; (2) application of the framework (and following refinement or enhancement thereof) on a specific sample of companies.

Considering that the literature review on offshoring and reshoring proved that the two phenomena share the theoretical underpinnings, through the Thesis a theory-based framework common to both sourcing strategies will be adopted.

³⁰ European Parliamentary Research Service (2014), Reshoring of EU manufacturing, March 21.

2.2. Theoretical foundations: TCE, RBV, OLI Model (Eclectic Paradigm), Internalization Theory, International Trade Theories, De-internalization, Foreign divestments

In this subsection, there will be a presentation of the main theories which have been considered throughout the reshoring studies in order to address the issue of the relocation of manufacturing activities from a theoretical standpoint. In order to classify and analyse offshoring and reshoring drivers, it's important to highlight that these motivations often revolve around economic rationales and rely on international business frameworks (i.e., the eclectic paradigm and internalization theory), strategic management theories (i.e., Transaction Cost Theory, Resource Based View), international trade theory or modern international trade theories (Helpman, Melitz e Yeaple, 2004).

Several researchers (Di Mauro C. et al, 2018; Ellram L.M. et al, 2013; Joubioux C. and Vanpoucke E., 2016; Fratocchi L. et al., 2016; Ciabuschi F. et al, 2019; Cohen M.A. et al, 2018; Foerstl K. et al., 2016; Johansson M. et al, 2018; Wiesmann B. et al., 2017) have adopted various theoretical underpinnings in order to validate the discussions about manufacturing location decisions encompassing offshoring and reshoring. The main theoretical perspectives are outlined below: Transaction cost economics theory (TCE), Resource-based view (RBV), the Dunning's eclectic paradigm (OLI model), the Internalization theory, the International trade theory, the modern international trade theory elaborated by Helpman, Melitz e Yeaple in 2004, de-internationalisation theory, foreign divestment theory.

The **Transaction cost economics** (TCE) belongs to the mainstream of studies on strategic management and it was theorized by Noble Prize Oliver E. Williamson³¹ with a study published on The Journal of Law and Economics in October 1979. TCE (Williamson, 1979) postulates that the optimum organizational structure is the one that reaches economic efficiency by minimizing the transaction costs associated to exchanges. The key assumption underpinning the TCE theory is that the rationality of actors is limited, and their behaviour may be opportunistic. Williamson has comprehensively defined transaction costs as the costs of running the economic system of firms. However, by "transaction cost" is meant the cost in which the parties occur when they generate an economic exchange in the market. Transaction cost includes coordination costs of monitoring, controlling, and managing transactions. In more details, transaction costs can be broken down into three parts: search and information costs, bargaining costs and policing and enforcement costs. The former costs are related to searching meaningful information, looking for the right agents with whom close the deal and meeting with the parties to negotiate and conclude the agreement; bargaining costs are associated with the negotiation between the parties and drawing up the contract; policing and enforcement costs are sustained in order to secure the contract and ensure that the parties do not default on the terms of the agreement but comply with the deal. According to Williamson, the drivers of transaction costs are uncertainty, frequency, specificity,

³¹ Oliver E. Williamson, *Transaction-Cost Economics: The Governance of Contractual Relations*, The Journal of Law and Economics 22, no. 2 (Oct., 1979): 233-261, <https://doi.org/10.1086/466942>.

limited rationality, and opportunistic behaviour. In fact, such costs exist because traders are driven by competitive self-interest and opportunistic behaviours when they negotiate in an uncertain scenario.

As reported by Williamson, transactions costs must be distinguished from production costs: every decision-maker can choose between using company's facilities to carry out a certain activity or fulfil it having recourse to the market (market transactions). The choice is made by comparing internal production costs with transaction costs and opting for the option which requires the lowest cost. Therefore, cost is the primary determinant of such a decision. Consequently, TCE is extensively referred to in the make-or-buy decisions since it helps explain why companies perform certain operations in-house and source others from the market. In terms of optimal location decision, TCE is used to explain the offshoring decision being it widely acknowledged as a cost-saving strategy, namely based on cost considerations. Indeed, TCE entails that a company normally switches from a high-cost environment to a low-cost region, other factors being equal.

If TCE is advocated to explain reshoring, it would follow that the relocation of production activities back to the home country occurs when it is more advantageous on a cost basis than offshoring them. However, several studies highlight that reshoring strategy is not only driven by cost factors but also and mostly by factors such as quality, delivery time, flexibility, access to skills and knowledge. Hence, it is possible that reshoring occurs from a low-cost to a higher-cost country and this means that company doesn't consider only transactional costs when deciding their manufacturing location but also resource-based aspects. However, from a transaction-cost perspective, reshoring is motivated by lower coordination and control costs of performing an activity within the domestic borders rather than offshoring it. Indeed, companies can relocate their manufacturing activities in order to perform them close to R&D and design functions. Furthermore, global supply chains can be complex to manage, and limited intellectual property protection together with cultural and geographic distance can trigger opportunistic behaviours by either offshore suppliers or foreign independent owner of production facilities. These may lead to unsustainable costs to negotiate, monitor, coordinate, control and enforce international transactions and thus, to the implementation of reshoring strategy.

While TCE deals with the governance structure, the **Resource-based view (RBV)** theory copes with the search for competitive advantage. RBV belongs to the mainstream of studies on strategic management, as TCE, and can be defined as a managerial theory adopted to outline the strategic resources that a firm should own in order to achieve a sustainable competitive advantage. RBV approach emerged in the period running from 1980s to 1990s, after major studies: *The Resource-Based View of the Firm* (Wernerfelt B., 1984), *The Core Competence of The Corporation* (Prahalad and Hamel, 1990), *Firm resources and sustained competitive advantage* (Barney, J., 1991) and others.

RBV is based on the principle that companies are heterogeneous since they own different resources and thus, they can perform different strategies employing diverse resource bundles. Therefore, companies are bundles of tangible and intangible resources/capabilities. Together with the heterogeneity of the resources, another assumption at the basis of RBV is that resources are not mobile therefore, they don't move from one company

to the other, at least not in the short run. In fact, intangible resources such as brand equity, intellectual property, knowledge are usually immobile. Hence, firms can't reproduce competitors' resources or perform the same strategies. According to the RBV, firms can find their competitive advantage focusing on their internal resources instead of looking for them in the external environment. By resources it is meant assets, capabilities and competencies, namely both tangible and intangible resources, with the potential to deliver superior competitive advantages. More precisely, resources are "all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc. controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness"³² and competitive advantage is "when [a firm] is able to implement a value creating strategy not simultaneously being implemented by any current or potential competitors"³³. With the publication of his work in 1991, Barney broadened the extant literature claiming that resources, in order to deliver a superior competitive advantage, must not only be heterogeneous and immobile but also complying with the so-called "VRIO" framework. The VRIO criteria require that firm's internal resources, in order to become means for obtaining a competitive advantage, must be:

- Valuable: means that they help the company to deliver value to its customers.
- Rare: not available to other competitors.
- Inimitable (costly to imitate): not easily imitable by competitors.
- Organized to capture value (non-substitutable): not substitutable with other non-rare resources.

Therefore, the RBV implies that firms must develop unique, firm-specific core competencies to outperform competitors by operating and doing business differently.

If Resource-based view theory is applied to manufacturing location decisions, it is possible to highlight the connection between the two and considering the former as one of the theoretical perspectives to analyse the latter. RBV suggests that manufacturing location decisions are driven by the search for competitive advantage. Thus, the company should invest in those functions in which it boasts unique, firm-specific core resources and outsource activities for which it doesn't possess resources or capabilities complying with the VRIO criteria. From a resource-based view perspective, reshoring reflects the inability of the company to either develop distinctive resources in a foreign country, to transfer them abroad or to properly exploit the resources present in the host countries in order to gain a competitive advantage. One of the most meaningful reasons driving reshoring from a RBV perspective is the "Made in" effect, crucial especially for the TCLF industry.

Within the economic and business literature, it is significant to cite John H. Dunning and his eclectic paradigm. The eclectic paradigm, also known as the **OLI Model**, was theorized by Dunning in 1980 and provides insight about Foreign direct investment (FDI). The author outlined an economic model which explains the entry mode

³² Barney, J.B. (2001), *Is the Resource-Based "View" a Useful Perspective for Strategic Management Research?*, Academy of Management Review. 26 (1): 101. doi:10.5465/AMR.2001.4011938.

³³ *Ibidem*.

choices of multinational enterprises (MNEs). The propensity of a company to engage in offshoring depends upon the “OLI” advantages, where “OLI” stands for Ownership, Location, and Internalization, precisely three potential sources of competitive advantage for a company planning to become a multinational. The three determinants of international production are:

- Ownership advantages: Ownership advantages are the key to understand the existence of multinational enterprises. A company owning firm-specific core advantages which allow it to bear the costs of performing abroad, is able to engage in Foreign direct investment (FDI) in a successful way and perform in foreign countries. Ownership advantages refer to cost advantage and to monopoly power to offset higher costs generated by operating abroad.
- Location advantages: Location advantages focus on the countries where MNEs operate their activities and look for the presence of raw materials, skilled workforce etcetera. Location advantages occur when a country offers location advantages likely to attract the company to stay instead of producing abroad.
- Internalization advantages: MNEs can organize their activities choosing between exploiting its own core competencies and resources and performing them in-house and license a foreign independent party to do them. Firms will internalize activities in wholly-owned facilities when the net advantages brought by its core competencies are greater than using other entry modes such as exports, joint venture, licensing.

Particularly, internalization and location advantages are the main arguments for offshoring production to low-wage countries (Kinkel and Maloca 2009). While location advantages can be dealt with on a country-level, ownership and internalization advantages refer to the firm-level analysis.

In 1998 Dunning revised his eclectic paradigm and identified four possible reasons to implement an FDI:

- (1) resource-seeking advantages (i.e. availability of raw materials, infrastructure, local partners),
- (2) market-seeking advantages (i.e. cost and skilled workforce and suppliers, access to the domestic market),
- (3) efficiency-seeking (i.e. cost advantages, government removal of trade barriers, specialized industry clusters),
- (4) strategic asset seeking FDI (i.e. tacit knowledge, tangible or intangible synergies).

Being manufacturing reshoring a location decision which influences the degree of a company’s FDI, in terms of Dunning’s paradigm it can be considered as an answer to a deterioration of one or more of the offshore location advantages.

Ellram et al. (2013) framed offshoring drivers on Dunning’s paradigm, namely Dunning’s categories of advantages: resource seeking, market seeking, efficiency seeking and strategic asset seeking (see table 2). In other words, the authors used the Dunning’s L advantages to classify offshoring motives. Resource seeking advantages consider the Input/Product factor, since this last depends on resource availability.

Market seeking advantages addresses to sales opportunities as well as local resource markets and thus, it is related to cost, logistics and labour factors. Efficiency seeking advantages refer to running operations and thus, supply chain interruption risk and country risk. Finally, strategic asset seeking advantages focus on strategic access and government trade policies. Moreover, the analysis conducted by Ellram et al. (2013) led the authors to the finding that companies tend to focus more on strategic asset seeking and efficiency seeking advantages when deciding a manufacturing location than resource seeking advantages. Indeed, a great deal of importance is attached to supply chain performance, customer value creation and knowledge generation.

Eclectic Theory of International Production	Offshoring Study Constructs
Resource seeking advantage	Input/product
Market seeking advantage	Cost Labor Logistics
Efficiency seeking advantage	Supply chain interruption risk Country risk
Strategic asset seeking advantage	Strategic access Government trade policies

Table 2: Relationship Between Eclectic Theory and Offshoring Constructs

Source: Ellram, L. M., Tate, W. L., & Petersen, K. J. (2013). Offshoring and reshoring: an update on the manufacturing location decision. *Journal of Supply Chain Management*, 49(2), p. 18

While Dunning’s eclectic paradigm maintains a distinction between firm-level advantages (i.e. ownership advantages and internalization advantages) and country-level advantages (i.e. location advantages), the **Internalization theory** considers the two bundles integrated (on a global-level). The Internalization theory, like the Dunning’s eclectic paradigm, belongs to the International Business mainstream and it was theorized by Buckley and Casson in 1976³⁴. The Internalization theory postulates that the direct control (namely, internalization) over firm-specific, scarce, knowledge-based resources and capabilities is the most efficient way to internationalize a company’s activities. It fundamentally applies RBV and TCE to depict the efficient manufacturing location decisions of MNEs.

From an internalization perspective, reshoring can be explained by changes in the fundamental characteristics of the world economy (Casson, 2013) such as changes either in location characteristics (i.e., a decrease of the local specialization) and/or in the factors influencing supply chain’s governance efficiency (i.e., an increase in the costs of managing ownership in a foreign host country).

International trade theory focuses on the existing gap between host and home countries regarding production costs and/or factor endowments. These differences determine the cross-border specialization of production

³⁴ Buckley, Peter J. and Mark C. Casson (1976), *The Future of the Multinational Enterprise*, London: Macmillan

and international transactions. In this view, reshoring stems from a change in the cost and specialization of factors which fosters the comparative advantage of the home country, increasing its attractiveness in the global chessboard and favouring it compared to foreign countries.

Helpman, Melitz e Yeaple (2004) conducted a study which introduced the heterogeneity in the extant international trade models and gave birth to a modern international trade theory. According to their model of international trade and investments, a company can decide whether to serve its domestic market, to export or to engage in FDI in order to serve foreign markets (Helpman, Melitz e Yeaple, 2004). In particular, the authors focused on the firms' productivity levels and reached the following findings. The least productive firms leave their industry because otherwise, no matter how they organize, they are going to have negative profits. Firms which have a low productivity level decide to serve only their domestic market. The remaining companies decide to both serve the domestic market and foreign markets. In particular, the least productive companies belonging to this group decide to export, while the most productive ones choose to implement FDIs. However, two companies which are equally productive may opt for two different modes of internationalization, depending on the sector and the host country. This explains why even a productive firm can choose to reshore its production activities to its domestic country, after having offshored them to a foreign country, and to export its products. This model encompasses the basic aspects of the proximity-concentration trade-off in the horizontal FDI theory, which supports the Thesis according to which the foreign markets are served more by exports than FDI when trade frictions are lower or economies of scale are higher (Helpman, Melitz e Yeaple, 2004). Finally, Helpman, Melitz and Yeaple introduced to the extant international trade theories the role of heterogeneity which prompts a size distribution of companies, which influences the ratio of exports to foreign direct investments.

The last theories outlined belong to the international business literature and are the de-internationalisation theory and the foreign divestment theory. Although they don't sufficiently provide an underpinning for reshoring since they either overlook important features of the phenomenon or outline only the case of the relocation of the whole production facility back to the home country not considering intermediate cases, these concepts contribute to the formation of a comprehensive knowledge about the topics covered.

De-internationalization refers to the process in which decision-makers - voluntarily or forced by external factors - reduce the firm's operations in the international environment. It's an adjustment of the company's degree of exposure to international contexts.

Foreign divestments regard the - voluntary or involuntary - company's reduction of its ownership share in a foreign direct investment.

While foreign divestment and de-internationalization refer to the foreign affiliate to its entirety, reshoring can also affect only specific activities (for instance, only a production line). Moreover, the foreign divestment and de-internationalization do not necessarily entail the relocation of the divested activities to another facility because they can be completely divested, while reshoring implies a certain continuity of the activities

interested, meaning that the reshored operations are relocated back to the home country. Furthermore, while foreign divestment and de-internationalization only refer to foreign affiliates controlled and owned by the parent company, reshoring can also influence activities undertaken by external foreign parties.

To conclude, it is possible to assert that Dunning's re-examination of his model mirrors the trends in the production location studies. Indeed, earlier studies concentrated on existing gap in labour costs between the home and host country, while current researches are shifting their focus more on new value creation. Adopting Dunning's terminology, studies are shifting from a focus on resource seeking (first and foremost, cost advantages) towards a more strategic asset seeking (advantages).

2.3. Reshoring: a correction of a previous erroneous offshoring decision or a step in the evolutive right-shoring decision process? The analysis of two schools of thought

The decision to reshore has attracted a relevant attention in recent history. In the economic and business framework, a dilemma about reshoring was born: some researchers and academics interpret reshoring as a correction of a previous (wrong) offshoring decision, others consider it as a step within the evolutive manufacturing location decision process of a company. Thus, two schools of thought have emerged: one considering reshoring as a "correction mechanism" as compared with a previous erroneous managerial decision (namely, the offshoring), the other interpreting it as a "simple change in strategy" due to changes occurred in the external and/or internal scenario.

Giving an answer to this dilemma is not an easy task, as also understanding the complex nature of reshoring and its underlying motivations.

In order to assess the first school of thought about the topic, namely the one considering reshoring as a "correction mechanism" to a managerial error, it's important to examine the firm's internalization process, too. Indeed, a company can reshore a previously offshored business activity because of mistakes in total costs evaluation, as well as unexpected changes in the internal and/or external environment which deteriorate the estimated offshoring advantages. Firms which don't invest enough resources in planning and implementing the offshoring strategy or that lack the necessary knowledge, experience or skills, can resort to reshoring as a "corrective action", namely an attempt to tackle and remediate a previous location decision that turned out badly (Kinkel and Maloca 2009, Gray et al. 2013, Fratocchi et al. 2014) or a solution to their problems abroad (Kinkel, 2012). Moreover, if reshoring is undertaken after a period of time relatively short after the offshoring implementation, it can be considered as a "*short-term corrections of prior location misjudgements, rather than a long-term reaction to slowly emerging local development trends*" (Kinkel and Maloca, 2009). The authors consider reshoring as a consequence of learning and correcting earlier misjudged offshoring decisions when they turned out to be below the expectations, for instance when offshoring proves to be improper to guarantee quality standards, cost advantages, organizational flexibility.

In the same line, Gray et al. (2013) acknowledge reshoring as a corrective action since they assert that companies reshore after having experienced managerial valuation inaccuracies (i.e., risks and hidden costs). Thus, according to the authors, reshoring is an example of organizational learning by doing and it needs to be analysed as the reversion of a previous offshoring decision and not as an independent phenomenon (Gray et al., 2013).

The latter school of thought suggests a shift in the way firms interpret reshoring. According to them, reshoring is considered as one of the global sourcing strategies available to a company after a change of the macro-economic business context and, in particular, a change respect to the previous offshoring which was deteriorating the company's comparative advantage. Therefore, reshoring is interpreted as an outcome of the managerial adaptation to the environment in which the firm operates. In light of this, changes leading to adjustments in the company's business strategy constitute a reshoring driver. For instance, the increase in China's labour costs accounted for more than 20% per year (Shih, 2013) can be considered a macro-economic change which made China less attractive as a host country. By environmental changes it is meant both changes at a macro-economic level (those affecting the business environment, for example the increase of labour wages), and changes at the organizational and cultural level. Moreover, Gylling et al. (2015) demonstrate that reshoring can be a backlash to changes occurring not only in the environment outside the organization formed by the industry, the country, the international scenario, but also within the organization's borders.

In addition to this, Kinkel (2014) asserted that "*backshoring can act as a reasonable strategy to adapt to dynamically changing global markets*". Furthermore, Fratocchi et al. (2014) in their study on the manufacturing reshoring consider the relocation of production activities to the home country as one of the steps of manufacturing activities' development on an international scale. More accurately, the international localization of production activities should be examined in a dynamic perspective – not necessarily incremental – which evolves over time. Startingly, a company decides to internationalize its manufacturing processes, by identifying the proper procedures of doing and controlling it, choosing the most suitable entry mode (insource offshoring or outsource offshoring), determining the geographical distance at which the firm intend to localize its activities (namely, in the same geographical area or in a further region). These decisions lead the company to undertake an offshoring strategy (or nearshoring in the case of the relocation in a region which is close to the home country). The internalization process can take place following different modes, depending on the framework conditions. Indeed, the company can decide to confirm its manufacturing location decision and keep the offshoring strategy or pursue another route which can generate a tactical adjustment in terms of changes in insourcing/outsourcing, partial or total transfer of production activities to another facility. Pursuing another route can also lead to a change in business strategy, i.e. a relocation of manufacturing activities to a further country or to a closer country, or reshore the production processes back to the home country. From this standpoint, it's clear that reshoring can be considered as a possible phase in the long-term non-linear internationalization process of a manufacturing firm in which environmental changes occur and this results in consequential adjustment in the production location strategy. Furthermore, Baraldi et al. (2018)

adopted the IMPT (Industrial Marketing and Purchasing) network view in order to explain the phenomenon of reshoring and support the second school of thought. The authors suggest that it's not likely that the reshoring phenomenon occurs in isolation, it rather takes place within an existing contexts and networks, which affect the relocation of manufacturing processes back to the home country.

On the topic of the reshoring dilemma have also intervened Bals et al. (2016) who acknowledged that both the interpretations are possible, so that reshoring can be viewed as the result of both managerial adaptation and environmental selection. Regarding the empirical studies which have been carried out on this topic, Fratocchi et al. (2016), basing on the research conducted by the Group Uni-CLUB MoRe reshoring, have demonstrated that the number of reshoring cases owed to the adaptation to changed environmental conditions is higher than those attributable to a correction of an earlier strategical error. Another relevant study is the one conducted by Barbieri et al. (2018) which classifies all the research carried out on manufacturing reshoring. It emerged that the total amount of research papers considering reshoring driven by "managerial mistakes" is 20 which include seven drivers belonging to the "managerial mistake" category. Among them, the most relevant one is "Miscalculation of actual cost and/or adoption of new cost accounting methods" (Barbieri et al., 2018). On the other hand, the amount of research papers considering reshoring driven by "external environment" is 46 with a total number of 31 cited reshoring motivations. Among them, the most relevant ones are "poor quality of offshored manufactured products", "Production and delivery time impact" and "Reduction of labour cost gap between the home and the host country" (Barbieri et al., 2018). Moreover, also 27 reshoring drivers have been identified for the "internal environment" category, with a total of 46 documents dealing with the topic. Among the most relevant reshoring drivers caused by the internal environment, "Change in firm's business strategy" is cited.

In order to overcome the dichotomous conceptualization of the reshoring phenomenon, the approach followed throughout this Thesis is the one according to which reshoring has to be considered as a step in the "non-linear" evolutive manufacturing location decision process, namely that reshoring is an answer to changes occurred in the firm's internal and/or external environment. However, it's still important to highlight that manufacturing sourcing decisions deal with many factors and motivations. Thus, individual global manufacturing location decisions should be analysed separately since every case is unique and the complex phenomenon of reshoring can stem from different motivations and conditions, depending on individual cases. What is important to bear in mind is that the global environment where firms operate is continuously changing and a dynamic long-term vision about the manufacturing location strategy is essential. A company interacts with different stakeholders and these relations modify and evolve over time. This leads the company to constantly think of its systems and strategic choices in order to assess them and be sure to have chosen the optimal ones.

2.4. Factors driving location decisions

After having cleared up the importance of location decision, having outlined the theoretical underpinnings of manufacturing location decisions and the “reshoring dilemma”, stating that this Thesis is going to support the stream of thought conceiving reshoring as a step in the non-linear internationalization process of a company, this subsection is going to present the most relevant drivers when deciding the location for a manufacturing activity, regardless of it being domestic manufacturing, a reshoring or an offshoring case. Therefore, this subsection is going to provide insights about the drivers which lead companies to strategically locate manufacturing activities exactly in a specific site.

Firstly, a firm locates its manufacturing activities on the basis of the **product** itself. If the product is realized to be sold on the local market, it follows that it’s more valuable to locate manufacturing facilities close to the final market and to the company’s headquarter, all other things being equal. On the contrary, if the product is conceived to be sold on a global market, it follows that managers can decide to fragment production activities on a global scale with the purpose of undertaking them in the most efficient possible way.

Secondly, companies have to consider **labour costs** and the **labour skills required**. The former encompasses the wage, work bonuses, taxes, security costs and agency payments, if any. Labour costs have been often considered as one of the most important driver of location decisions and, in particular, they play a decisive role in labour-intensive productions. Moreover, they account for a relevant part of the total costs supported by a company undertaking manufacturing processes. However, labour skills required by the specific production process have to be considered as well, since labour costs are not enough to make a proper location decision. The latter driver refers to workforce’s level of education, skills, productivity, accountability, performance, ability to learn new tasks quickly. The labour skills driver is even more crucial for companies producing goods which require expert and specialized workforce.

To sum up, a balance between the cost of labour and the value that it generates in terms of good quality products and working performances is crucial for companies when having to decide where to locate manufacturing activities.

Thirdly, a relevant role in location decisions is played by **transport costs**. They depend on the volume and the nature of the products and determine whether producing abroad is profitable or not: the higher the transport costs, the closer the manufacturing processes to the final market. Transport costs encompass costs of the transport of materials to the plant and distribution costs. Moreover, they are affected by several variables: fuel and oil costs, technology adopted, distance travelled, trade facilitation, geographical obstacles, infrastructures. The transport cost is directly proportional to fuel and oil costs, distance travelled, geographical obstacles; while it is inversely related to technology adopted (i.e., jet transport, containerisation), trade facilitation (namely, regulations, services) and well-organized infrastructures (roads, ports, airports, railroads, telecommunications). Besides, in the cost’s framework, also **utility costs** influence location decisions.

Another factor which has to be taken into consideration when choosing the location of company's manufacturing activities is the speed and reliability of shipping, in general, the **lead time**. Lead time generates costs since if it increases, it has a negative impact on the time efficiency of the firm's supply chain. Moreover, if lead time increases over the predetermined time, it can cause missed sales opportunities and thus, missed revenues and/or costs. Besides, lead time has to be considered together with the other factors, especially the transport aspects described in the above paragraph. For instance, a new shipping trend adopted by companies in order to reduce the fuel used, and thus costs, is the slow streaming, meaning that sea carriers run their vessels at a lower speed. This technique has a positive impact on transport costs but a negative effect on lead time and the balance of both effects must be considered when choosing the best production location.

A location decision is also affected by the **level of technology and innovation required** by the interested manufacturing process. Indeed, some processes may require advanced technologies, innovative and sophisticated machines, or they may need to be executed close to the firm's R&D department in order to be constantly monitored and, eventually, enhanced, adjusted and updated. In this case, a company operating in a developed economy, should seriously consider locating its production activities close to its R&D centre.

In addition to the above-presented factors, a firm should never underestimate **trade barriers** when localizing production plants, too. By trade barriers is meant all the limitations imposed by governments on the free flow of goods and services from one country to another. Their goal is to protect national industries from international competition and they often have political reasons behind. Examples of trade barriers are: subsidies, namely government incentives in the form of support or financial aid to national firms; tariffs, which are taxes or duties to be paid on imports or exports; embargo, i.e. an official ban on trade with a specific country; quotas, which refer to a limit imposed on the quantity of a particular good and/or service which can be exported/imported to/from another country. Trade barriers prevent national companies to localise their production activities in another country considered as the optimal location. If the company operates on an international level, it can be convenient to open a new plant in the foreign country instead of exporting goods from the home country or, if unable to do it something similar, it can be convenient to serve the local market by producing goods close to it and within the national borders.

Furthermore, **exchange rates** also strongly affect location decisions. Exchange rates, currency valuation and their volatility affect international transactions, namely the process of converting the home currency to the foreign one and vice-versa. Currency exchange rates frequently vary due to macroeconomic factors and change, and these variations affect companies' business making exports and imports more or less expensive and making foreign locations more or less attractive.

Economic, political, institutional, regulatory and geographical framework of the home and the foreign countries represents an important issue when deciding the optimal location for a firm's manufacturing activities. The above-mentioned framework encompasses several factors which have to be considered by a

firm. Firstly, a great deal of importance have the political and economic instability and the level of corruption, since if they are present, both in the home and in the host country, a company can't develop a solid strategy due to the uncertain, unpredictable and illegal environment in which it operates. Secondly, the fiscal system, namely taxation benefits and tax subsidies, is a relevant factor which can attract or ward off a firm from locating a production facility within a certain country. Thirdly, the regulatory body of a country can favour certain industries compared to others, through a smooth bureaucracy and supports. Thus, the company needs to understand which country offers the best fit in terms of regulations with the industry in which it operates. In this regard, before choosing the site for a manufacturing plant, a company has to assess a country's legal requirements regarding labour, health, environment, business. For instance, environmental issues are increasingly attracting the attention of policymakers and governments, leading them to enforce environmental law and requirements which, however, differ from country to country. Also, consumers protection regulations can be implemented, namely reducing the employment of materials from countries which lack strict safety controls, in order to protect final consumers. Besides, some countries enforce the local content requirement, meaning that a certain amount of intermediate goods employed for the realisation of the final product must come from home suppliers. As far as the geographical framework is concerned, it leads companies to evaluate if the geographic area where they would like to locate their manufacturing plants is known for recorded natural disasters or not. In the former case, the high risk of supply chain disruption ought to divert the firm from location its production plants close to these dangerous areas.

Moreover, crucial for a company's supply chain is **flexibility**. In an increasingly global and competitive business environment, being flexible is becoming more and more necessary for a firm. Indeed, nowadays, it's vital to be ready to capture the changes in customers demand, competition, market conditions and to consequently respond with changes in business operations. Besides, supply chain flexibility is becoming more and more crucial because of growing customers' taste for customized products and because of products' life cycle becoming shorter. Thus, companies need to be ready to beat the fierce competition, be the first on the market and meet customers demand quickly and properly. There's no denying that a company can reach this objective efficiently only if its lead times are at their lowest possible level and manufacturing plants are located close to the final market.

Furthermore, a company has to take into consideration the **culture**, both national and organizational. Indeed, different countries may differ substantially in term of culture, i.e. organization, business values, ethical principles, behavioural norms. Differences in cultural aspects could lead to misunderstandings, conflicts, deadlocks, management complications, processes executed below the expected level and thus, to coordination and higher control costs.

Within the regulation framework, the **protection of intellectual property rights (IPR)** also affects location decisions. The IPR issue generates differences among different countries: some countries do effectively protect

intellectual property rights through patents, trademarks, copyrights but other countries completely lack a regulation about it (or the regulation is present, but it is enforced in a lax and superficial way). The second case leaves room for dangerous and risky damaging thefts of intellectual properties against companies owning them. In addition to this, if IPRs are not adequately protected, companies have no incentive to invest in innovation. That's why a country with a fair and enforced regulation of the protection of intellectual property rights attracts investments. Indeed, it facilitates the creation of innovation centres and new manufacturing facilities. In this regard, it's important to recall the WTO's *Agreement on Trade-Related Aspects of Intellectual Property Rights* (TRIPS) effective from 1995, January 1st. TRIPS is an international legal agreement which was negotiated among 162 parties (all WTO members) after the end of the Uruguay round of the General Agreement on Tariffs and Trade (GATT). TRIPS³⁵ establishes minimum standards for the regulation of the forms of intellectual property in order to reduce differences in the various regulations on this topic among countries. Moreover, it was the first international legal agreement (and the most important to date) to introduce the protection of IP into multilateral trading. TRIPS triggered several responses from WTO members in terms of national laws. For instance, Italy has enacted Finance Law 2004 which forbids companies to declare the Italian origin with the "Made in Italy" label if the manufacturing, processing and transformation activities are not operated in Italy or they are carried out in Italy only marginally.

Lastly, the presence of **industrial district**, or business cluster or agglomeration economies, deserves a particular attention, too. The industrial district is connected with a specific business environment where a geographic concentration of suppliers, manufacturing firms and businesses is present, offering specific resources and a high level of expertise within a certain industry. The industrial district allows firms operating in its geographic area to increase their productivity due to the network effect and external economies. Well-known examples of clusters include computer chip production in California's Silicon Valley, Hollywood's movie production industry, Italy's fashion and leather goods sectors, London's financial sector.

Table 2 visually illustrates and sums up the factors driving location decisions outlined in this sub-section.

³⁵ Particularly, TRIPS requires WTO members to comply with specific requirements regarding geographical indications of the products, patents, industrial design, new plant varieties, trademarks, copyright rights. TRIPS aims at protecting and enforcing all the intellectual property rights and contributing to the promotion and the spread of technological innovation.

Factors (related to the home developed country)	Relation between the factor and the decision of locating firm's production within the home country
Product addressed to local market	Positive
Labour costs	Negative
Labour skills	Positive
International transport costs	Positive
Utility costs	Negative
Infrastructures	Positive
Lead time (short)	Positive
Technology (required by the production process)	Positive
Trade barriers	Positive
Exchange rates risk	Positive
Political and economic stability	Positive
Corruption	Negative
Smooth bureaucracy and favourable fiscal system	Positive
Tax rates	Negative
Supply chain disruption risk	Negative
Flexibility	Positive
Importance of cultural aspects/ cultural differences	Positive
Protection of intellectual property rights	Positive
Industrial district	Positive

Table 3: Relation between factors related to the home country and the localization of firms' production activities within the home country

Source: Personal elaboration of the above-explained concepts

It's clear that the outlined relations are not valid and true in an absolute way. Indeed, the answer to the question where to locate production facilities always depends on the evaluation of several factors to be considered at the same time which include multiple actors, first among all, the company itself and the external business environment.

Thus, for example, in the case of the first factor analysed, the table assumes that the relation between a product realised by the firm for its local market and the firm's production location within the home country is positive.

One can deductively assume that if the product was realised for a global market, the same relation would be negative. However, this is not necessarily true. Think of Italian unique expertise and skilled workforce within the fashion industry. Even if it would be more convenient and logic to fragment on an international scale the production of a certain pair of leather shoes distributed and sold globally, *ceteris paribus*, many Italian firms keep realising their products within the domestic country due to the uniqueness and the inestimable value of the Made in Italy and everything that entails.

Furthermore, another assumption is made on the home country, since it is considered to be a developed economy, so as to distinguish it from developing countries. This is to clarify the relation of, for example, technology and the home country. If the home country was a developing economy, indeed, it would be convenient for a company needing a medium-high level of technology to offshore its production processes to another country in order to exploit the higher innovation present in the foreign economy. In this case, the relation between technology required by the production process and the home country would have been negative since companies operating in developing economies are not able to find the necessary level of technology in their home country.

2.5. Factors driving offshoring, risks and challenges

Offshoring and production location decisions in general are inherently characterised by complexity. From the study of the extant literature emerged that offshoring decisions are mainly taken by companies from a developed economy to a “low-cost” developing country. This sub-section is dedicated to the most important reasons driving companies to offshore their production activities to a foreign country, preferred over the national country.

Offshoring is a strategy which has been initially undertaken by companies with the objective of reducing operating costs. Thus, goods and services started to be produced in countries where their realisation proved to be less costly and companies could pursue the so-called “labour arbitrage” to support lower costs and increase corporate profitability. Following Dunning’s approach and in light of what has been stated hitherto, offshoring is implemented with the aim of pursuing an *efficiency seeking* strategy. However, it should be noted that, over the years, offshoring has undergone a development and evolution process which changed firms’ strategic objectives and, accordingly, the drivers and reasons leading companies to adopt a relocation strategy. Indeed, respect to years ago, nowadays a new trend is emerging within the companies’ manufacturing location decisions: offshoring is not undertaken only for cost-advantages but is also driven by new motives. Therefore, offshoring decision doesn’t only hinges on cross-country wage comparisons but depends also on several factors like institutions, quality of infrastructures, availability of potential business partners, the search for new growth opportunities, access to qualified personnel (notably, technical professions), availability of skilled workforce and new knowledge, R&D factors, efficiency of the legal system. However, cost savings remain the most prominent reason. To further deepening the discussion about the non-labour-cost offshoring drivers,

another reason driving companies to offshore can be transportation cost saving, which is a relevant factor in the optimization of business processes in logistics. Together with these cost savings, the company needs to consider the other production costs which offshoring implies (coordination, monitoring and communication costs) and assess the trade-off between them. In addition, taxation is a crucial driver when a host country offers more favourable tax conditions compared to those present in its home country. While the two above-presented drivers are still cost-related, since they lead the company to cost savings, proximity to target customers is a reason prompting offshoring and not related to costs, at least not directly. Indeed, a company can choose to offshore its manufacturing activities in order to get closer to its target customers and penetrate to new markets, accordingly to its strategic plans. This can also increase the company's speed to these markets. Furthermore, some regions may offer unique supplier capabilities that a company may be looking for and being unable to find in its home country. With regards to government regulations, other factors driving offshoring decisions are the quality of infrastructures, political stability, government incentives, policies aimed at attracting foreign investments. Besides, currency exchange rate is another driver which determines the level and the location of offshoring decision. From the standard trade theory, it's possible to assert that a depreciation of the domestic exchange rate makes imports more expensive while appreciation has the opposite effect. Thus, in the former case, the depreciation slows down the offshoring phenomenon, while the appreciation of the domestic exchange rate drives local companies to buy more inputs from foreign countries and, on an arm's length basis, it fosters the companies' offshoring. Moreover, offshoring can be part of a comprehensive company's growth global strategy, of a business process redesign, a differentiation strategy or the response to the increasing competitive pressure. The latest offshoring trends have technological and organizational motives as drivers for offshoring. Indeed, the increasing efficiency in the Information and Communication Technology infrastructure makes the coordination of multiple and separate operations possible at sharply lower costs. In fact, cheap global telecommunication enables rapid and instantaneous transmission of information from a country to another cost-effectively. In addition to technological reasons, the firms' increased organisational capacity is also an important enabler to the integration of geographically fragmented activities.

To sum up, the reasons pushing companies to offshore partly or totally their manufacturing processes are several. However, cost savings is, unquestionably, the main driver for offshoring. In particular, in almost all the offshoring cases there isn't just one reason driving a company to offshore. What drives a company to undertake the strategic decision to offshore is a bundle of drivers which act conjointly.

Offshoring drivers:

- Labour Cost
- Access to qualified personnel
- R&D factors
- Growth strategy
- Taxation
- Proximity to target customers
- Speed to market
- Availability of suppliers' capacity
- Government incentives
- Domestic currency exchange rate appreciation

Figure 13: Offshoring drivers

Source: personal elaboration of the above-explained concepts

2.6. Factors driving reshoring, benefits and opportunities

In this section, a theory-based classification of reshoring drivers is presented. By reshoring drivers it is meant factors which prompt the company to reverse a prior location decision and reshore its value chain activities, partially or totally. This may include unexpected consequences of offshoring, executives' misjudgements, changes in the internal or external environment, drawbacks of locating activities abroad or advantages of being located within the home country. Elaborating on the literature and the empirical data set out in Chapter 1, this paragraph ends up classifying reshoring drivers according to the following aspects, i.e. the "creation of value perceived by customers" and "cost advantages".

The creation of value perceived by customers pertains to the reshoring drivers which do not directly relate to costs but are aimed at enhancing the company's value. Moreover, it is a factor which explains the phenomenon of reshoring encompassing drivers related to customers' perceived quality, distinctive services and innovation. Indeed, customers' perceived quality, distinctive services and innovation can foster the company's ability to create value, develop (or maintain) the company's competitive advantage and to improve customers' satisfaction. Cost advantages, on the other side, refers to the drivers which lead to the minimization of the overall costs supported by a firm through the relocation of production activities back to the home country. These drivers explain reshoring as the search for lower logistic and production costs, together with a more efficient coordination and control system. In this view, reshoring can be attributed to reduced gaps in input costs between the home and the host country (labour costs, in the first place) and to the lower coordination, control and monitoring costs (compared to offshoring). Cost advantages drivers are based on the belief that reshoring can be ultimately cheaper than offshoring, mainly due to hidden costs of offshoring, the costs of managing global value chains and relations with distant partners, changes in the external environment and supply chain risks. Henceforth, a deeper analysis of the two reshoring drivers' categories will be provided.

The creation of value perceived by customers mirrors the impact of a complex, geographically extended value chain on the company's service level, products' quality and innovation potential. Indeed, offshoring leads to a globally extended supply chain and thus to long transportation and lead times, which can result in lower operational flexibility. Reshoring, on the contrary, drives the company to be close to its end market, therefore, to a more flexible supply chain, to shorter lead times and a faster time to market, thanks to a well-established transportation infrastructure. Especially for companies operating in the fashion industry, being quick to understand customers' desires and needs and to deliver new appealing products on short notice is of crucial importance. By relocating production processes closer to the target markets, firms increase the flexibility of their supply and value chain. Moreover, nowadays customization is replacing the former standardized products and this new trend requires updates in companies' production processes in the direction of a higher flexibility. This adaptation to the latest demand trends can only be reached through a close relationship between companies and their customers. That's why proximity with key customers is crucial to remain competitive in the global scenario and represents a significant driver for reshoring. In addition to this, firms decide to relocate their manufacturing activities back to their domestic country also because of image and marketing reasons. Recent scandals concerning inhumane working conditions practised in emerging countries, indeed, shed light on the need to reconsider western companies' responsibility and ethical behaviour. In light of this, reshoring is a proper ethical answer to these scandals and aims at improving firm's reputation.

Furthermore, the cultural distance (namely, communication and language barriers, different *modus operandi*) between the home and the host foreign country can also hinder a smooth and successful offshoring and prompt reshoring.

Besides, the geographical distance between the R&D and design departments with production activities existing in long and articulated value chains can hinder the coordination between the above-mentioned functions, lower the innovation potential and slow down the process of response to customers' needs, especially when a pull approach is implemented. Reshoring, on the contrary, is a way to closely coordinate R&D and design departments.

In addition to this, the growing digitalisation of manufacturing in western countries is another motive driving companies to reshore. Indeed, several digital technologies are emerging such as data analytics, artificial intelligence, industry 4.0 and the smart factory, robots, 3D printing, machine to machine communication (M2M), sensors, embedded metrology to control quality along the production process, simulations. The increased automation in production processes occurring in western countries discourages companies to offshore and drives them to reshore their manufacturing activities to their home country which is able to provide higher-quality and sophisticated technologies to apply to the entire value chain.

Additionally, some companies decide to relocate their production activities back to their home country also because the host countries proved unable to reach the expected quality standards in the offshored processes. It can happen because of low quality of local production, lack of skilled workforce, lack of technological capabilities, weakness of the legal system in protecting the intellectual property. In the home country, on the

contrary, skilled workforce is readily available and this prompts companies to relocate their production activities back to their home country.

Moreover, nowadays customers pay more attention to the origin of the products and to their quality compared to some years ago. That's why, many companies decide to undertake reshoring strategy in order to improve the quality of the products provided to their customers and to be able to declare the "Made in" sought after by consumers, improving customers' satisfaction.

As far as the protection of intellectual property is concerned, another factor driving companies to reshore their operations is the potential threats to intellectual property which occurs when offshoring. Foreign suppliers, indeed, may become competitors if they manage to acquire valuable knowledge about the production processes, especially in emerging countries lacking IP rights or a strong enforcement of them. Thus, reshoring facilitates intellectual property protection and know-how retention.

Moving to the discussion of the cost advantages drivers, reshoring decision depends on multiple types of costs: unexpected costs, hidden costs, greater than expected costs. First of all, complex and geographically extended supply chains affect coordination costs, costs related to the inventories in distribution centres and costs supported by the company for late deliveries. Thus, reshoring is considered the solution to these issues, since driving it the relocation of the company's activities back to the home country, it contributes to the reduction of costs related to the coordination and control, inventories and deliveries to western and closer countries.

One of the most important drivers for reshoring is the reduction in the gap existing between wages in the host and in the home country. Indeed, since western firms have delocalised production activities in foreign emerging countries in the 1990s and early 2000s, production costs have meaningfully increased in these countries. First and foremost, China eroded its cost advantage in labour-intensive activities since the average wage increased by 15-20%. Moreover, labour production improvements available in western countries offset any remaining wage differentials between host and home countries. The changes in cost structure occurring in emerging countries reflects the changes in cost differentials of the production inputs occurring in the external environment and causing the rise of inputs' costs. Inputs include also energy prices (gas and oil) and building costs whose costs have risen too in recent years leading to unfulfilled savings.

In some cases, the reduction in labour costs in home developed countries is also due to investments in innovation and automation of the processes. These investments increase the level of productivity and efficiency, making the home country much more attractive as a place for undertaking production activities.

Moreover, reshoring can also be a response to miscalculation or underestimation of the "offshoring total cost". Indeed, there are some costs, the so-called "hidden costs", which regard management, logistic and the operations of offshoring, which were not taken into account by executives when implementing the delocalisation and that made offshoring an unprofitable strategy. Examples of hidden costs are: the increase of oil and gas prices, costs for limited shipping capacity and for every issue implied by long and complex

global value chains, inventories in distribution centres, new productions or recalls for deficient products with below standard quality.

Further, logistic costs are definitely higher in extended global supply chains and this is because of higher transportation costs, the cost for fuel, custom duties. In light of this, reshoring can lead to a higher efficiency through lower logistic costs and better capacity utilization. This brings to the consideration of another motive for reshoring: the underutilization of home production capacity. This has definitely driven companies to reshore their activities back to their home country.

Moreover, governments can bestow incentives to encourage domestic companies to reshore their manufacturing activities. The geopolitical environment is definitely conducive to reshoring.

While most drivers fit unambiguously with one of the two above-explained categories, there are some drivers which are consistent with both. For example, global supply chain risk, as a consequence of congestion of the international transportation structure or political instability, can concern both the customer service level (namely, the customers' perceived value) and the cost-efficiency in terms of penalties or higher shipping costs. Reshoring can be the answer to reduce the supply chain risks, inherent to extended and fragmented global networks. Moreover, frailties in the company's internationalization strategy can affect both the company's perceived value and the cost-efficiency. Additionally, changes in the global economy and changes in the global competitive dynamics are unpredictable factors which can be considered as reshoring drivers.

To conclude, the heterogeneity of the drivers listed above suggests that reshoring may be undertaken in diverse situations, conceivably influenced by other factors such as the industry or the company's size.

Company's value-related drivers:

- Proximity to customers
- Delivery lead time and flexibility
- Demand volatility and responsiveness to customers' demand
- Well-established infrastructures at home
- Production and deliver/transportation reliability
- Image and marketing
- Responsibility and reputation
- Cultural distance
- Proximity to R&D
- Availability of new technologies and automation at home
- Below-the-standard quality in the host country
- Availability of skilled workforce at home
- “Made in” effect
- Threat of losing intellectual property and know-how retention
- Labour production improvements at home

Cost-related drivers:

- Increasing transaction costs (when offshoring)
- Hidden costs (when offshoring)
- High inventory costs (when offshoring)
- Higher-than-expected control costs (when offshoring)
- Higher-than-expected coordination costs (when offshoring)
- Increasing energy prices (when offshoring)
- Increasing labour costs in the host country (when offshoring)
- Increasing logistic costs (when offshoring)
- Custom duties (when offshoring)
- Penalties for late deliveries (when offshoring)
- Underestimation of the total cost of offshoring
- Governments' incentives for relocation
- Untapped production capacity at home/ Capacity bottleneck in the host country

Hybrid drivers:

- Changes in the global competitive dynamics
- Changes in the global economy
- Supply chain risks

Figure 14: Reshoring drivers

Source: personal elaboration of the above-explained concepts

2.7. An interpretative framework of international location decisions

The set of drivers emerging from the dissertation have been positioned inside a figure made of two quadrants: one presenting the offshoring drivers and the other one depicting the reshoring drivers.

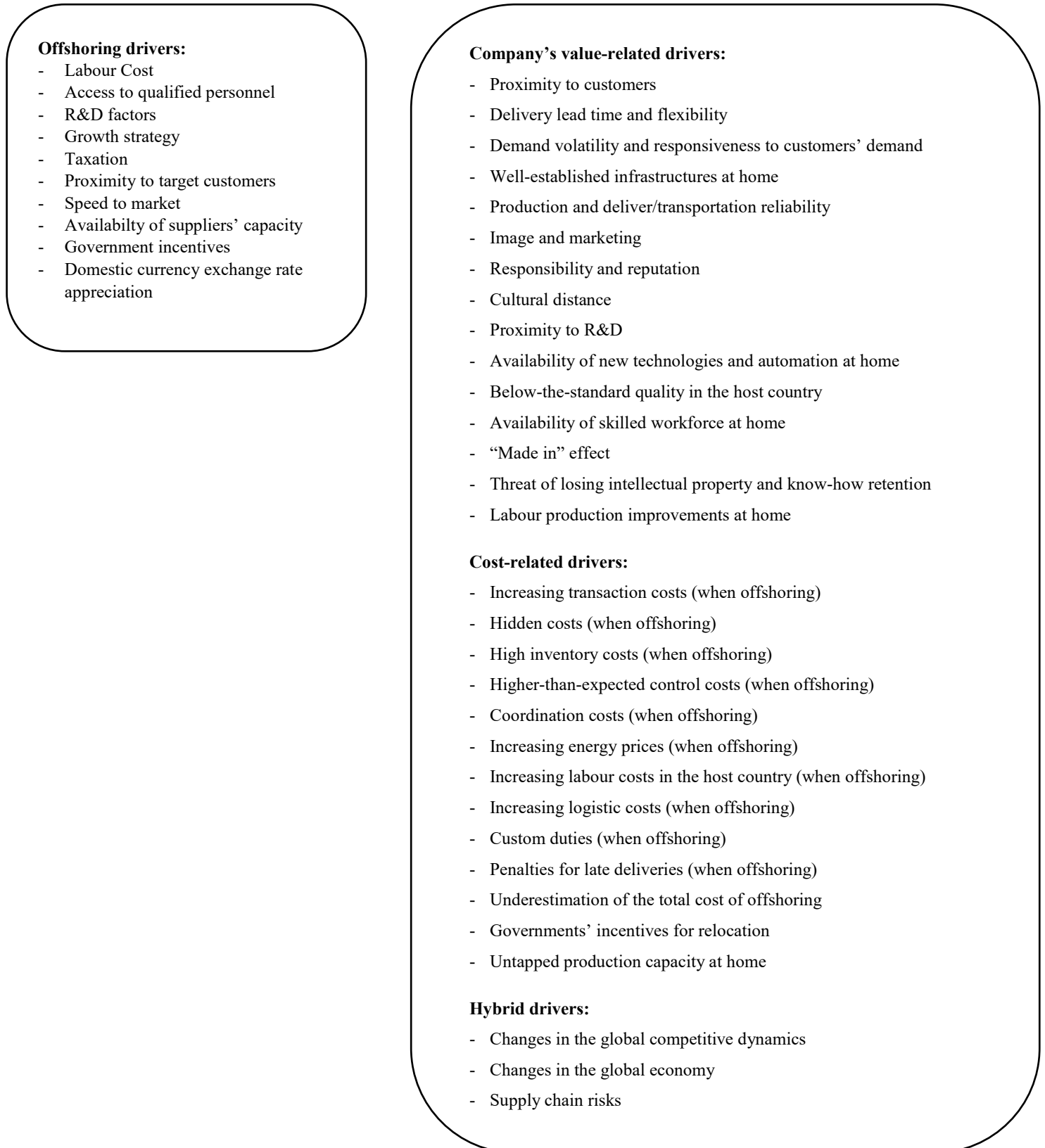


Figure 15: Interpretative framework of offshoring and reshoring drivers

Source: Personal elaboration of the above-explained concepts

2.8. Discussion

A theory-based framework about the factors driving companies to make their location decision and, in particular, about the factors driving companies to offshore and to reshore, has been developed in the previous subsection. A deductive approach has been implemented since the conceptual interpretative framework is grounded on a systematic literature review and analysis. 41 prominent motivations have been identified, in total: 10 drivers for offshoring and 31 drivers for reshoring. The objective of this theory-based framework is to be applicable to concrete cases of value chain activities' location decisions, in order to define and interpret the behaviour of companies undertaking reshoring strategies.

The literature review on offshoring and reshoring showed some commonalities in terms of underlying theoretical perspectives between the two phenomena. This allows for the adoption of a common theory-based framework in order to analyse and categorize the drivers underpinning the two sourcing strategies.

A cursory look at the interpretative framework of international location decisions drivers reveals that the two bundles of drivers differ in one aspect in particular: while offshoring seems to be driven mainly by cost-efficiency drivers, in the reshoring quadrants stood out two categories of drivers, cost-efficiency motives but also motivations related to the company's value.

Hence, the process of bundling of the drivers that influence production location decisions resulted in two different sets of drivers for offshoring and reshoring. For offshoring, the key factors turned out to be (lower) labour costs, (lower) taxation and access to foreign markets. For reshoring, on the other side, the key drivers were found out to be quality, proximity to key customers, (lower) delivery and lead times, well-established infrastructures at home, proximity to R&D, availability of new technologies and automation at home, "Made in" effect and, finally, hidden costs related to a previous offshoring decision.

However, the topic that this Thesis aims at investigating, reshoring, proves to be a heterogeneous phenomenon, meaning that it constitutes a response to various challenges a company may face. What stands out from the analysis is that cost is no longer the major force driving companies' location decisions. Instead, other factors such as quality, market access, supply chain-related drivers (delivery lead time, logistic costs, flexibility, suppliers' availability), innovation, have emerged as crucial elements to decide the location of a firm's production activities and nowadays rank as the most important factors. It is possible to draw the conclusions that production location decisions have shifted from being merely operational decisions based on cost-efficiency to becoming strategical decisions, meaningful for the core business of a firm and thus, encompassing many other aspects in addition to cost-related factors. Hence, the reversal of the trend in companies' production location decisions, from a situation where basically only offshoring was taken into account, to a situation where companies rethink their prior decisions and consider to reshore their activities back to their home country, reflects changes in companies' conception of production location decisions that years ago were considered merely operational decisions led by cost-related factors, while nowadays gained a strategic importance. Therefore, the topic of production location decision can't be entirely explained by changes in

relative costs between home and host countries. In order to fully understand the manufacturing location decisions and the logic behind them, the full bundle of drivers identified in this analysis should be taken into consideration.

Moreover, the framework is grounded in both strategic management theories and international business. Indeed, both the results of this analysis support the resource-based view theory (RBV) and the transaction cost economics theory (TCE). As far as the TCE theory is concerned, offshoring's and reshoring's bundles of drivers encompass cost-related factors, which entails that also reshoring decisions follow the TCE theory. Besides, both bundles of drivers proved to follow RBV theory since they show the objective of attracting important and meaningful resources. Furthermore, this analysis also supports the Dunning's OLI Model since some drivers can be traced to: market seeking advantages (e.g., market access); efficiency seeking advantages (e.g., cost-related drivers); strategic asset seeking advantages (e.g., quality, synergies within domestic clusters); resource seeking advantages (e.g., well-established infrastructures). Thus, from the above-presented theory-based framework, it's not possible to identify only drivers attributable to Dunning's efficiency seeking advantages. It's possible to explain this confirming that companies are moving away from making production location decisions basing only on cost-related drivers because, on the contrary, other motives are taking over.

2.9. Conclusions

The analysis of the theories illustrated in this chapter points out that there is a trade-off between FDI and producing within the home country. In particular, it's more likely that a company invests in foreign production (offshoring) when transport costs are high, establishment and communication costs are low and when the goods are easily transportable. Conversely, if transport costs are low, establishment and communication costs are high, it's more likely that the company decides to produce within the home country (and export its products abroad). It is possible to assert that Dunning's re-examination of his model mirrors the trends in the production location's studies. Indeed, earlier studies concentrated on existing gap in labour costs between the home and host country, while current researches are shifting their focus on new value creation. Adopting Dunning's terminology, studies are shifting from a focus on resource seeking (first and foremost, cost advantages) towards a more strategic asset seeking (advantages).

Furthermore, this chapter has also provided insight about the existence of two schools of thought with reference to the reshoring phenomenon. The school of thought supported by this Thesis is the one which considers reshoring as a step in the evolutive right-shoring decision process and not as a correction of a previous erroneous offshoring decision. The reasons behind this choice are the followings: although there's no empirical study proving the superiority of the former compared to the latter, it's undeniable that the external and/or internal environments where firms operate are constantly changing. Thus, reshoring can be interpreted as the outcome of the managerial adaptation to the environment where the company operates. Changes in total cost of labour, financial crisis, innovations, increasing government incentives to produce within the domestic

country, are just some of all the changing factors which drive firms to adopt a dynamic approach when choosing their strategic production location, leading to a non-linear evolutive manufacturing location decision process.

As far as the drivers leading a company to offshore its production activities, what emerged from the theory-based framework outlined in this chapter is that cost savings is, unquestionably, the main driver for offshoring. With regard to reshoring drivers, on the contrary, the theory-based framework explains reshoring as a phenomenon driven by two types of factors: those related to the company's value (proximity to customers, image and marketing, "made in" effect, intellectual property, and so forth) and those related to costs (transaction costs, labour costs, coordination costs, hidden costs, and so forth). The theory-based framework, stemmed from the considerations presented in Chapter 1 and outlined in the current chapter, will be tested in the following chapter with an empirical analysis, in order to better understand the reasons driving companies to make a production location decision and, in particular, a reshoring decision.

3. CHAPTER 3: The empirical analysis: a focus on European manufacturing firms

3.1. Introduction

Within the theoretical framework presented in Chapter 1, a theory-based framework has been developed in Chapter 2, in order to achieve the goal of this Thesis, which is to understand and interpret the behaviour of enterprises undertaking reshoring strategies. In order to integrate and strengthen the theory-based framework which has been presented in Chapter 2 and that focuses on offshoring and reshoring drivers, a database of cross-country and cross-industry reshoring decisions has been built. Hence, Chapter 3 will test the robustness of the theory-based framework, outlined in Chapter 2 on the basis of the contents presented in Chapter 1, carrying out an empirical analysis on a European sample which will also reach the goal to further the extant knowledge of the reshoring phenomenon.

3.2. Methodology

To develop a better understanding of the reshoring phenomenon and of its current stage in Europe, data have been collected between January to August 2019, mainly via the online database, constantly updated and publicly available on the European Reshoring Monitor website³⁶. The European Reshoring Monitor has already been mentioned in paragraph 1.4.1.1.³⁷ of this Thesis. Indeed, it's a project carried out within The Future of Manufacturing in Europe (FOME)³⁸ which is an explorative study proposed by the European Parliament and conducted by the European Foundation for the Improvement of Living and Working Conditions (Eurofound) under the delegation of the European Commission's Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs. While Chapter 1 presented the Eurofound's findings in a descriptive way, Chapter 3 is going to establish a dataset, on the basis of the data included in the European Reshoring Monitor, and to analyse it.

The European Reshoring Monitor is a project carried out by a research team made of academics belonging to four different Italian universities: *Università degli studi di Udine, Università di Bologna, Università degli studi di Catania, Università degli studi dell'Aquila*. The European Reshoring Monitor analyses and measures the reshoring phenomenon, namely the return of previously offshored jobs to Europe³⁹, in the form of a multi-annual research (from 2014 to 2018). The researchers have structured their work collecting information about individual reshoring cases and organising them into a constantly updated online database⁴⁰. The European Reshoring Monitor's goal is to identify, analyse and summarize evidences and findings on reshoring of value

³⁶ European Reshoring Monitor, <https://reshoring.eurofound.europa.eu/>

³⁷ Paragraph 1.4.1.1. The European case, p.38.

³⁸ Eurofound (2019), The future of manufacturing in Europe, Publications Office of the European Union, Luxembourg.

³⁹ Eurofound (2019), The future of manufacturing in Europe, Publications Office of the European Union, Luxembourg.

⁴⁰ European Reshoring Monitor, <https://reshoring.eurofound.europa.eu/>

chain activities (manufacturing and others) within the European Union. As far as the methodology used by the European Reshoring Monitor is concerned, the researchers based their analysis and the resulting database on secondary data, meaning that the information collected, elaborated and released stem from newspapers, reports, articles, official company's announcements, magazines, leading international business journals (e.g., *Sole 24 Ore*, *Financial Times*, *Wall Street Journal*), business magazines (e.g. *Bloomberg Business Week*, *The Economist*, *TIME*), major consulting companies' papers (Accenture, Boston Consulting Group, McKinsey). Furthermore, data have been collected from the most relevant international business conferences (e.g., EIBA and AIB). Moreover, the research team conducted a search for articles using selected keywords such as "reshoring", "backshoring", "relocation", "reverse globalization", "insourcing", "nearshoring", "back-reshoring", and so forth. The above-mentioned keywords have also been researched in the most used internet search engines and in academic databases such as Elsevier's Scopus and Google Scholar. Concerning US firms, data have been collected also consulting The Reshoring Initiative⁴¹, which is the only public database currently available collecting information about US companies. Reshoring drivers have been retrieved either from journalists' report of each company's case, or from the company's managers' quotation issued in direct interviews. The methodology based on secondary data stemming from the international press and the above-listed sources turns out to be useful to understand reshoring decisions within the manufacturing sector since they have the single plant, or the single item, or the single production line, as a unit of analysis.

As a result of this intensive research work, a database collecting data concerning European companies deciding to reshore their value chain activities have been built and, from the moment of its release, has been constantly updated, hitherto. The database, which is consultable on the European Reshoring Monitor website, provides the following information, where available, about each company: country where the company is headquartered, sector in which the company operates, date of reshoring, date of offshoring, country where the company offshored its activities, reshored activities, reshoring drivers, governance mode adopted when offshoring, governance mode adopted when reshoring, case narrative and sources.

As a complementary task, the European Reshoring Monitor also develops and updates an online database of reference material on the topic of reshoring, including academic papers, consultancy and policy reports, key media articles, regional and national policy initiatives. As of February 2019, the European Reshoring Monitor encompasses 253 reshoring cases, reported from 2014 to 2018. The project considers two types of situations:

- Companies reshoring the previously offshored value chain activities to their home country (within the European Union).
- Companies reshoring to any EU country value chain activities previously offshored to a non-EU country.

Despite the increasing rate of firms considering and implementing a reshoring strategy and the consequential interest in companies' reshoring initiatives coming from academics, it has to be noticed that quantitative data

⁴¹ The Reshoring Initiative, www.reshorenow.org

of the phenomenon are still fragmented. This lack of information about reshoring cases is often due to the fact that the interested business unit is often below the level of a plant (e.g., a production line) and therefore data are difficult, if not impossible, to obtain. Moreover, most of reshoring initiatives are implemented as part of the company's business strategy. This means that, depending on the aim that the company wants to achieve implementing the reshoring strategy, the firm can decide to not release the announcement of the new strategy and keep it within the company's borders. This makes the search for information about the reshoring phenomenon more arduous. Furthermore, when reshoring is implemented as a corrective strategy of a previous, erroneous, offshoring strategy, the company may want to proceed secretly, otherwise it would have to admit the strategic mistake concerning the offshoring.

Reverting to the main point of this paragraph, namely the methodology adopted throughout this Thesis in order to carry out a valuable analysis able to lead to relevant findings, the European Reshoring Monitor, as previously anticipated, has been taken as an important point of reference. This decision has been taken since finding information about companies undertaking a reshoring initiative is arduous, sometimes impossible, for the reasons depicted before and thus, building a sample of firms on a tool such as Orbis, without any bias, and investigating, in retrospect, the companies forming the sample, one by one, could have led to an inaccurate and perhaps inexact representation of the reshoring phenomenon. Indeed, not every company announces publicly its localization strategy. One of the main reasons is because, especially for the companies belonging to the sector investigated in this Thesis, the manufacturing sector, production is a core function which encloses strategic decisions which a company doesn't always want to disclose. Building a sample of companies without any bias and then analysing each company's localization strategy individually would have meant, in all likelihood, to omit companies which have undertaken a reshoring initiative, because of a lack of the company's public announcement of it or a journalist's disclosure of the news. This explains why it has been preferred to start from the broad database accessible in the European Reshoring Monitor website. A sample of all European companies operating in the manufacturing sector, the one subject to the investigation, has been extracted in an Excel file, so as to trace any relevant information about the selected companies. The unit of analysis is the single reshoring decision. This means that if a single company has implemented more than one reshoring decision, let's suppose two reshoring decisions, it will account for two separated cases. After having defined the sample to be analysed, further information about the companies have been searched on Orbis (and Aida, for the Italian companies), in order to have a clear understanding of the big picture. Interesting findings have emerged from this aggregation of data concerning European companies operating in the manufacturing sector and having decided to implement a reshoring strategy. Results will be discussed in the following paragraphs. Therefore, in the following paragraphs a detailed and operational description of the methodology used to build the sample, to select the variables to be examined and to carry out the analysis will be provided. Then, a paragraph will be dedicated to the discussion of the findings stemming from the analysis of the companies constituting the sample. Afterwards, the theory-based framework developed in Chapter 2 will be adapted to the results of the study and its robustness will be tested on an empirical analysis. Finally, the analysis proceeds

with a further investigation on the topic using a supporting tool, Gephi, which allows to visualize the economic network resulting from the analysis.

3.3. Sample selection and variables investigated

From a strictly operational standpoint, the database available on the website of the European Reshoring Monitor has been consulted. The focus of this Thesis is to investigate the phenomenon of reshoring in the broad sector named by the NACE 2007 codification “Manufacturing” (Code C – Manufacturing)⁴². Moreover, the reshored business function relevant to the investigation is production. Thus, the aim is to detect all the companies headquartered in Europe, registered in the European Reshoring Monitor database, operating in the Manufacturing sector, which have offshored and then reshored (partly or totally) their production activities back to their home country. The range of reshoring announcement dates runs from 01/01/2014 to 22/07/2019. The date considered throughout the analysis is the starting reshoring implementation date or alternatively, in case of absence of the former, the reshoring announcement date.

The fields filled to extract the sample which is going to be under investigation are the following:

The screenshot shows a search form with the following fields filled:

- Company name:** Empty text input field.
- Company country:** Dropdown menu with the text "Choose some options".
- Sector:** Dropdown menu with "C - Manufacturing" selected and a close icon (X).
- Offshoring country:** Dropdown menu with the text "Choose some options".
- Reshored business function:** Dropdown menu with "Production" selected and a close icon (X).
- Reshoring country:** Dropdown menu with the text "Choose some options".
- Reshored services/activities:** Dropdown menu with the text "Choose some options".
- Reshoring announcement date (is between):** Two date input fields. The first contains "01/01/2014" and the second contains "22/07/2019". Below each field is a small example text: "E.g., 22/07/2019".

At the bottom of the form are two buttons: "Apply" and "Reset".

Figure 16: Fields filled for the analysis

Source: Reshoring cases, <https://reshoring.euroworld.europa.eu/reshoring-cases>

The research has been launched with the above-mentioned requirements and a set of companies has been obtained. Each European company operating in the C-Manufacturing sector and having reshored its production activities has been analysed. The following information have been extracted from the European Reshoring Monitor and set out in the database: company name, sector, country of offshoring, offshoring governance

⁴² For a deeper understanding of the classification of the sub-sectors within the sector C “Manufacturing”, see the Appendix at the end of this Thesis.

mode, offshoring drivers, country of reshoring, reshoring starting implementation date, reshoring governance mode, case narrative and sources, reshoring drivers.

In order to have a clear understanding of the position held by each company in the international business scenario, further information have been researched in Aida and Orbis, two tools developed by Bureau Van Dijk, a Moody's analytics company. Aida contains comprehensive information on Italian companies, while Orbis contains economic and financial information about companies operating worldwide and therefore it operates on a global level.

The study examines a sample of 196 reshoring decisions which account for 170 European companies analysed. This means that 26 reshoring decisions constitute a duplicate, a triplicate or even a quadruplicate of a single company. All the 170 European companies have announced to reshore part of their business functions to Europe from January 2014, while they have implemented reshoring from 2011.

The final database, constituted by 196 reshoring decisions, is assumed to be representative of all the reshoring initiatives undertaken by European companies. It is a heterogeneous sample, meaning that it is formed by companies which differ in terms of size, number of employees, sub-sector, country of origin. Table 4 provides an overview of the sample in which each company is described by six crucial information: the company name, the specific sub-sector in which it operates, the offshoring country, the reshoring country (which is the home country for the company), the reshoring date and, finally, the reshored business function which is production for any company. The final database analysed in this Thesis is presented in Appendix 2.

3.4. European data sample analysis

Focusing the attention on the 196 reshoring decisions which constitute the sample of this analysis, newsworthy findings have arisen. First of all, a breakdown by home country (or the reshoring country) has been investigated (Table 5). Table 5 reveals that there are some European countries which stand out from the others for number of reshoring decisions implemented by the companies headquartered within it and operating in the manufacturing sector. For each home country has been calculated the number of reshoring decisions and the percentage of the reshoring decisions for each home country on the total of reshoring decisions. Afterwards, the number of reshoring decisions has been "cleaned" by eliminating duplication and the number of companies implementing reshoring has been so obtained for each European country, together with the percentage of the number of companies undertaking reshoring for each European country on the total of companies reshoring their activities in Europe. Table 5 lists all the home countries of the companies belonging to the sample in their percentage order.

The three European home countries which record the highest number of reshoring decisions are, in descending order, France, Italy and United Kingdom, which account, respectively, for 29, 33 and 36 reshoring cases and 14,8%, 16,8% and 18,4% of the total of reshoring decisions implemented by European companies. Moving to the analysis of the number of companies undertaking at least one reshoring initiative, the result doesn't change

overall, since the three countries with the highest number of companies implementing a reshoring strategy are still France, Italy and United Kingdom, which account, respectively, for 27, 28 and 31 companies implementing reshoring and 15,9%, 16,5% and 18,2% of the total of companies implementing reshoring decisions in Europe. Referring to the home European countries less affected by the reshoring phenomenon, the findings lead to the conclusion that these are Austria, Greece, Belgium, Croatia, Ireland, Latvia, Netherlands, Portugal, Slovakia and Switzerland, where the first two account for 1 reshoring decision recorded and the rest accounts for 2 reshoring decisions, sometimes even implemented by the same company as it happens for Croatia or Ireland.

Moreover, the cumulative percentage has been computed in order to understand the frequency distribution of the reshoring phenomenon within the analysis of the home country. What's interesting to notice is that half of the reshoring cases (50,60%, to be exact) have been implemented in United Kingdom, Italy and France, while the remaining 49,40% is dispersed among the other European countries.

In order to better understand the phenomenon, data have been presented in descending order, as follows:

Reshoring (Home) Country	Number of reshoring decisions	%	Cumulative %	Number of companies	%	Cumulative %
United Kingdom	36	18,40%	18,40%	31	18,20%	18,20%
Italy	33	16,80%	35,20%	28	16,50%	34,70%
France	29	14,80%	50,00%	27	15,90%	50,60%
Sweden	17	8,70%	58,70%	15	8,80%	59,40%
Norway	14	7,10%	65,80%	10	5,90%	65,30%
Denmark	13	6,60%	72,40%	9	5,30%	70,60%
Germany	12	6,10%	78,50%	12	7,10%	77,70%
Finland	7	3,60%	82,10%	7	4,10%	81,80%
Poland	7	3,60%	85,70%	7	4,10%	85,90%
Spain	7	3,60%	89,30%	6	3,50%	89,40%
Estonia	3	1,50%	90,80%	2	1,20%	90,60%
Belgium	2	1,00%	91,80%	2	1,20%	91,80%
Croatia	2	1,00%	92,80%	1	0,60%	92,40%
Ireland	2	1,00%	93,80%	1	0,60%	93,00%
Latvia	2	1,00%	94,80%	2	1,20%	94,20%
Netherlands	2	1,00%	95,80%	2	1,20%	95,40%
Portugal	2	1,00%	96,80%	2	1,20%	96,60%
Slovakia	2	1,00%	97,80%	2	1,20%	97,80%
Switzerland	2	1,00%	98,80%	2	1,20%	99,00%
Austria	1	0,50%	99,30%	1	0,60%	99,60%
Greece	1	0,50%	99,80%	1	0,60%	100%
Total	196	100,00%		170	100,00%	

Table 4: Breakdown by home country

Source: Personal elaboration of the above-explained concepts (Data Source: European Reshoring Monitor database)

Being reshoring the relocation of the company's activities previously offshored to a foreign country, it's useful and interesting to investigate the geographical area where manufacturing activities were offshored, prior to reshoring. Table 6 shows the number of offshoring decisions for each offshoring country (host country). Therefore, a list of all the offshoring countries of the companies belonging to the sample has been detected and then, the host countries have been organised in descending order. Afterwards, for each host country, has been calculated the number of offshoring decisions and the percentage of the offshoring decisions for each host country on the total of offshoring decisions. As for the findings, 36,6% of total offshoring operations concerns China which, indeed, stands out among all the other offshoring countries with 71 offshoring decisions. The gap existing between the host country recording the highest number of offshoring cases and the second country most chosen for offshoring by European companies operating in the manufacturing sector is

relevant. Indeed, after China, Poland records the second highest number of offshoring decisions with 13 offshoring cases and then Germany with 10 offshoring cases.

Moreover, it's possible to notice that while the total number of reshoring cases was 196, the total number of offshoring cases is 194. This is because the information about the offshoring country is not provided for two companies in the sample, specifically OVS and Paul Smith.

Furthermore, the cumulative percentage has been computed in order to understand the frequency distribution of the reshoring phenomenon within the analysis of the offshoring host country. It's noteworthy that only the first four host countries (China, Poland, Germany, India) account for more than half of the total and, in particular, they account for 53,10%.

In order to better understand the phenomenon, data have been presented in descending order, as follows:

Offshoring (Host) Country	Number of offshoring decisions	%	Cumulative %
China	71	36,60%	36,60%
Poland	13	6,70%	43,30%
Germany	10	5,20%	48,50%
India	9	4,60%	53,10%
Sweden	8	4,10%	57,20%
United States	6	3,10%	60,30%
Romania	5	2,60%	62,90%
Czech Republic	4	2,10%	65,00%
Lithuania	4	2,10%	67,10%
Netherlands	4	2,10%	69,20%
Slovakia	4	2,10%	71,30%
Turkey	4	2,10%	73,40%
United Kingdom	4	2,10%	75,50%
Austria	3	1,50%	77,00%
Denmark	3	1,50%	78,50%
France	3	1,50%	80,00%
Italy	3	1,50%	81,50%
Taiwan	3	1,50%	83,00%
Australia	2	1,00%	84,00%
Bulgaria	2	1,00%	85,00%
Canada	2	1,00%	86,00%
Finland	2	1,00%	87,00%
Ireland	2	1,00%	88,00%
Serbia	2	1,00%	89,00%
Spain	2	1,00%	90,00%

Switzerland	2	1,00%	91,00%
Tunisia	2	1,00%	92,00%
Vietnam	2	1,00%	93,00%
Balkans	1	0,50%	93,50%
Bangladesh	1	0,50%	94,00%
Belgium	1	0,50%	94,50%
Estonia	1	0,50%	95,00%
Japan	1	0,50%	95,50%
Latvia	1	0,50%	96,00%
Mexico	1	0,50%	96,50%
Moldova	1	0,50%	97,00%
Morocco	1	0,50%	97,50%
Russia	1	0,50%	98,00%
Slovenia	1	0,50%	98,50%
Thailand	1	0,50%	99,00%
Ukraine	1	0,50%	99,50%
Total	194	100,00%	

Table 5: Breakdown by host country

Source: Personal elaboration of the above-explained concepts (Data Source: European Reshoring Monitor database)

Breaking down the data related to the offshoring countries by continents, it's possible to notice that the highest number of offshoring initiatives undertaken by European companies operating in the manufacturing sector has been implemented in Asian countries, as Table 7 shows. Indeed, the number of offshoring decisions towards Asia is 93, the 47,94% (of which 71 accounts for China). Afterwards, the number of offshoring cases from a European to another European country is 88, the 45,36% (of which 41 account for Eastern Europe), while the number of offshoring decisions to an American country are 8, the 4,12% (of which 7 account for North America and 1 for Mexico). Furthermore, the number of offshoring decisions to Africa accounts for 3, the 1,55% (of which 2 offshoring decisions account for Tunisia and 1 for Morocco), while Oceania accounts for 2 offshoring decisions, the 1,03% (entirely attributable to Australia). The findings highlight the fact that, looking at the big picture, Asia remains the most preferred country for European companies' offshoring decisions, but Europe is not so far as number of offshoring host countries. Indeed, the gap between Europe and Asia is not relevant as it is looking at the single countries, with Europe that accounts for 88 offshoring cases and Asia 93 offshoring cases. With a percentage of 45,36% and 47,94%, respectively Europe and Asia are almost equally represented in the offshoring decisions undertaken by European companies operating in the manufacturing sector before reshoring. Finally, the cumulative percentage has been computed in order to understand the frequency distribution of the reshoring phenomenon within the analysis of the offshoring host country broken down by continents. Thanks to the cumulative percentage it's possible to clearly understand

the predominance of Europe and Asia as continents chosen when offshoring production activities (later brought back in the home country with a reshoring initiative). Indeed, Europe and Asia account, together, for 93,30% of the offshoring decisions.

Offshoring continent		Number of offshoring decisions	%	Cumulative %
Europe		88	45,36%	45,36%
	<i>-Eastern Europe</i>	41		
Asia		93	47,94%	93,30%
	<i>-China</i>	71		
	<i>-Other Asian countries</i>	22		
America		8	4,12%	97,42%
	<i>-North America</i>	7		
	<i>-Mexico</i>	1		
Africa		3	1,55%	98,97%
	<i>-Tunisia</i>	2		
	<i>-Morocco</i>	1		
Oceania		2	1,03%	100,00%
	<i>-Australia</i>	2		
Total		194	100,00%	

Table 6: Breakdown by host country (focus on continents)

Source: Personal elaboration of the above-explained concepts (Data Source: European Reshoring Monitor database)

The inclusion of all the European companies having undertaken a reshoring initiative operating in the manufacturing sector represents a relevant strength of this research since it allows to focus on a single, crucial, sector for a country's economy and understand why some companies felt the need to relocate their business activities back to their home country considering that they had previously offshored abroad. As far as the breakdown by sub-sector is concerned, it should be noted that reshoring has affected various industry sectors. With reference to the manufacturing sector, the focus of this analysis, Table 8 shows that 22 out of the 25 codes, belonging to the section "C – Manufacturing" of the Statistical Classification of Economic Activities in the European Community⁴³, have been affected by the phenomenon of reshoring. For each NACE code

⁴³ The Statistical Classification of Economic Activities in the European Community, commonly referred to as NACE, is the industry standard classification system adopted by the European Union. Cases by NACE code C,

http://ec.europa.eu/competition/mergers/cases/index/by_nace_c.html

belonging to the “C - Manufacturing” section, the related number of reshoring cases has been calculated within the database. Afterwards, the three top reshoring home countries have been analysed with a particular focus, and the number of reshoring cases for each sub-sector has been computed for Italy, France and United Kingdom, as well as for the other European countries, by subtraction. Overall, the most affected sector is the Manufacture of wearing apparel (C14) which accounts for 24 cases, followed by Manufacture of food products and Manufacture of machinery and equipment n.e.c. which both account for 20 cases and Manufacture of computer, electronic and optical products which accounts for 18 reshoring cases. The less reshoring-affected sectors belonging to the section “C – Manufacturing” are: Manufacture of tobacco products, Manufacture of coke and refined petroleum products and Repair and installation of machinery and equipment which account for 0 reshoring cases, and then Manufacture of other non-metallic mineral products and Industrial and Commercial Machinery and Computer Equipment which account for 1 reshoring case, and, finally, Manufacture of paper and paper products and Manufacture of chemicals and chemical products which account for 2 reshoring cases.

It is possible to notice that the fashion sector, namely manufacture of textiles, manufacture of footwear, manufacture of wearing apparel and manufacture of leather and related products, overall, accounts for the most reshoring-affected sub-sector with a total number of reshoring cases equal to 35 reshoring cases. These findings are particularly relevant for Italy which is the country mainly concerned by the phenomenon of reshoring implemented within the fashion sector. Indeed, Italy stands out compared to all other European countries since it accounts for 43% of reshoring cases within the fashion sector (C13 - Manufacture of textiles, C14 - Manufacture of wearing apparel and C15 - Manufacture of leather and related products) on its own. These results can be explained by the fact that Italy boasts a unique specialisation in the fashion system through all the value chain, from design to craftsmanship.

NACE CODE	Description	N° of cases	%	Italy	%	France	%	United Kingdom	%	Others	%
C10	Manufacture of food products	20	10,2%	0	0,0%	4	13,8%	2	5,6%	14	14,3%
C11	Manufacture of beverages	4	2,0%	1	3,0%	0	0,0%	0	0,0%	3	3,1%
C12	Manufacture of tobacco products	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%
C13	Manufacture of textiles	4	2,0%	0	0,0%	0	0,0%	1	2,8%	3	3,1%
C14	Manufacture of wearing apparel	24	12,2%	11	33,3 %	3	10,3%	8	22,2 %	2	2,0%
C15	Manufacture of leather and related products	7	3,6%	4	12,1 %	1	3,4%	1	2,8%	1	1,0%
C16	Manufacture of wood and of products of wood and cork, except furniture	3	1,5%	0	0,0%	0	0,0%	0	0,0%	3	3,1%
C17	Manufacture of paper and paper products	2	1,0%	1	3,0%	0	0,0%	0	0,0%	1	1,0%
C18	Printing and reproduction of recorded media	3	1,5%	1	3,0%	0	0,0%	1	2,8%	1	1,0%
C19	Manufacture of coke and refined petroleum products	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%
C20	Manufacture of chemicals and chemical products	2	1,0%	0	0,0%	0	0,0%	0	0,0%	2	2,0%
C21	Manufacture of basic pharmaceutical products and pharmaceutical preparations	6	3,1%	0	0,0%	2	6,9%	4	11,1 %	0	0,0%
C22	Manufacture of rubber and plastic products	7	3,6%	0	0,0%	4	13,8%	1	2,8%	2	2,0%
C23	Manufacture of other non-metallic mineral products	1	0,5%	1	3,0%	0	0,0%	0	0,0%	0	0,0%
C24	Manufacture of basic metals	5	2,6%	1	3,0%	2	6,9%	1	2,8%	1	1,0%
C25	Manufacture of fabricated metal products, except	12	6,1%	0	0,0%	0	0,0%	2	5,6%	10	10,2%

	machinery and equipment										
C26	Manufacture of computer, electronic and optical products	18	9,2%	1	3,0%	4	13,8%	2	5,6%	11	11,2%
C27	Manufacture of electrical equipment	13	6,6%	2	6,1%	2	6,9%	1	2,8%	8	8,2%
C28	Manufacture of machinery and equipment n.e.c.	20	10,2%	3	9,1%	1	3,4%	3	8,3%	13	13,3%
C29	Manufacture of motor vehicles, trailers and semi-trailers	12	6,1%	0	0,0%	3	10,3%	3	8,3%	6	6,1%
C30	Manufacture of other transport equipment	16	8,2%	2	6,1%	1	3,4%	3	8,3%	10	10,2%
C31	Manufacture of furniture	8	4,1%	3	9,1%	1	3,4%	1	2,8%	3	3,1%
C32	Other manufacturing	8	4,1%	2	6,1%	1	3,4%	2	5,6%	3	3,1%
C33	Repair and installation of machinery and equipment	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%
C35	Industrial and Commercial Machinery and Computer Equipment	1	0,5%	0	0,0%	0	0,0%	0	0,0%	1	1,0%
	Total	196	100,0%	33	100%	29	100%	36	100%	98	100%

Table 7: Reshoring cases, a breakdown by industry sub-sector

Source: Personal elaboration of the above-explained concepts (Data Source: European Reshoring Monitor database)

In order to deepen the research on the industry sectors affected by reshoring, a backwards analysis can be undertaken about the offshoring decisions. This analysis is useful in order to understand where European companies operating in certain sectors had offshored their production activities and then decided to reshore them back to their home country. In order to carry out a statistical analysis on the studied sample, the five most reshoring-affected sectors have been selected. They are: C10 - Manufacture of food products, C14 - Manufacture of wearing apparel, C26 - Manufacture of computer, electronic and optical products, C28 - Manufacture of machinery and equipment n.e.c., C30 - Manufacture of other transport equipment.

It is interesting to notice that almost for each selected sub-sector, there is one geographical region (continent) which stands out compared to the others in terms of highest number of offshoring cases recorded. For instance, table 9 shows that, in the case of C10 – Manufacture of food products, 17 out of the 20 reshoring cases stem from an offshoring in Europe, while Asia, Africa and America account, respectively, only for 10%, 5% and 0% of the total offshoring cases. The majority of European companies deciding to reshore their production activities and operating in the Manufacture of wearing apparel sector (NACE code C14), on the contrary, previously offshored their production activities in Asia, as the evidences in Table 9 depict. As far as the Manufacture of computer, electronic and optical products sector is concerned, the majority of European companies reshoring their production activities had previously offshored them in Asia. In this case, the percentage of offshoring cases in Asia is 67%, compared to 22% of Europe, 0% of Africa and 11% of America. With regards to the C28 - Manufacture of machinery and equipment n.e.c. sector, the number of offshoring cases in Europe and Asia are almost equally represented (55% and 40%, respectively). Finally, in the Manufacture of other transport equipment sector, the majority of European companies reshoring their production activities had previously offshored them to Asia, with a percentage of 81% compared to 19% of Europe, 0% of Africa and 0% of America. Findings show that the sector plays an important role when offshoring and then reshoring. An inquiry on *why* in certain sectors it's recorded a higher number of reshoring cases and *why* almost all the companies operating in a certain sector, and deciding to reshore their production activities, had decided to remove their activities from the same geographical region can be investigated.

NACE CODE	Description	Number of cases	Offshoring to Europe	%	Offshoring to Asia	%	Offshoring to Africa	%	Offshoring to America	%
C10	Manufacture of food products	20	17	85%	2	10%	1	5%	0	0%
C14	Manufacture of wearing apparel	24	4	17%	17	71%	1	4%	0	0%
C26	Manufacture of computer, electronic and optical products	18	4	22%	12	67%	0	0%	2	11%
C28	Manufacture of machinery and equipment n.e.c.	20	11	55%	8	40%	0	0%	1	5%
C30	Manufacture of other transport equipment	16	3	19%	13	81%	0	0%	0	0%
	Total	98	39		52		2		3	

Table 8: Breakdown by industry sub-sector (focus on offshoring decisions).

Source: Personal elaboration of the above-explained concepts (Data Source: European Reshoring Monitor database)

Moving to the breakdown of the data by a time criterion, table 10 shows that the phenomenon came forward largely since the turn of the millennium, with a meaningful acceleration in the last decade. The number of reshoring cases increases significantly after 2013, reaching the peak in 2017 with 59 reshoring cases recorded in the Manufacturing sector in Europe. Table 10 provides the data concerning the breakdown by a time criterion. Another thing that should be noticed is the low number of reshoring cases recorded in 2019. This is because it's the current year, not over yet, and therefore the researches are still in progress.

Year	Number of reshoring cases	Reshoring from Europe	Reshoring from Asia	Reshoring from America	Reshoring from Africa	Reshoring from Oceania
2011	1	0	1	0	0	0
2012	6	1	4	0	0	0
2013	4	0	4	0	0	0
2014	28	10	14	3	1	0
2015	21	8	13	0	0	0
2016	45	21	18	2	1	2
2017	59	29	27	3	0	0
2018	27	15	10	1	1	0
2019	5	4	1	0	0	0
Total	196	88	92	9	3	2
		45%	47%	4,6%	1,5%	1%

Table 9: Breakdown by time

Source: Personal elaboration of the above-explained concepts (Data Source: European Reshoring Monitor database)

The last classification useful for this analysis relates to the motivations driving European companies operating in the Manufacturing sector to reshore their production activities.

For all the companies constituting the database, a research on the drivers leading them to reshore has been carried out within the European Reshoring Monitor website. For each company, a list of reshoring drivers has been set. Afterwards, all the reshoring drivers have been organised, encoded and arranged in a table (see Table 11). Then, the frequency with which each driver recurs through the list has been measured and all the reshoring drivers have been rearranged in ascending order (and this practice has been adopted through all the analysis). In this database 60 different reshoring drivers have been registered. Therefore, Table 11 classifies the reshoring drivers and report their frequency both in absolute terms and in percentage. The number and the variety of reshoring drivers listed in Table 11 confirms the heterogeneous and complex nature of the reshoring phenomenon highlighted in the previous chapters. Finally, the cumulative percentage has been computed in order to understand the frequency distribution of the reshoring phenomenon within the analysis of its drivers.

N.	Drivers	Frequency	%	Cumulative %
1	Delivery time	54	8,90%	8,90%
2	Automation of production process	50	8,20%	17,10%
3	Firm's global reorganization	44	7,20%	24,30%
4	Poor quality of offshored production	43	7,00%	31,30%
5	Made in effect	42	6,90%	38,20%
6	Proximity to customers	39	6,40%	44,60%
7	Change in total costs of sourcing	25	4,10%	48,70%
8	Know-how in the home country	25	4,10%	52,80%
9	Untapped production capacity	24	3,90%	56,70%
10	Implementation of strategies based on product/process innovation	23	3,80%	60,50%
11	Logistics costs	22	3,60%	64,10%
12	Need for greater organizational flexibility	17	2,80%	66,90%
13	Economic crisis	16	2,60%	69,50%
14	Labour costs' gap reduction	16	2,60%	72,10%
15	Government support to relocation	14	2,30%	74,40%
16	Proximity to suppliers	13	2,10%	76,50%
17	Improve customer service	10	1,60%	78,10%
18	Quality control	10	1,60%	79,70%
19	Unattractiveness of the offshore market	8	1,30%	81,00%
20	Exchange rate risk	7	1,10%	82,10%
21	Intellectual property protection	7	1,10%	83,20%
22	Loyalty to the home country	7	1,10%	84,30%
23	High inventory costs	6	1,00%	85,30%
24	R&D vicinity	6	1,00%	86,30%
25	Improvement in efficiency	5	0,80%	87,10%
26	Increased home country manufacturing productivity	5	0,80%	87,90%
27	Production flexibility	5	0,80%	88,70%
28	Corporate social responsibility image	4	0,70%	89,40%
29	Increased production costs in the host country	4	0,70%	90,10%
30	Streamlining of supply chain	4	0,70%	90,80%
31	Customer demand increase	3	0,50%	91,30%
32	Customs issues	3	0,50%	91,80%
33	Lack of ex-ante location planning	3	0,50%	92,30%
34	Offshored activities' control complexity	3	0,50%	92,80%
35	Rationalization of costs	3	0,50%	93,30%
36	Retailer/customer pressure (e.g., Wall-Mart)	3	0,50%	93,80%
37	Size of the lots	3	0,50%	94,30%

38	Termination of earlier supply relationships	3	0,50%	94,80%
39	Unions' pressure at the home country	3	0,50%	95,30%
40	Business strategy	2	0,30%	95,60%
41	Clean technology	2	0,30%	95,90%
42	Improvement of production efficiency	2	0,30%	96,20%
43	Local employees' poor skills	2	0,30%	96,50%
44	Quality	2	0,30%	96,80%
45	Risk of brand counterfeiting	2	0,30%	97,10%
46	Supply chain reorganization	2	0,30%	97,40%
47	Brand repositioning	1	0,20%	97,60%
48	Brexit	1	0,20%	97,80%
49	Changes in taxation	1	0,20%	98,00%
50	Collaboration with suppliers	1	0,20%	98,20%
51	Competitive pressure	1	0,20%	98,40%
52	Cultural and linguistic differences	1	0,20%	98,60%
53	Customer vicinity	1	0,20%	98,80%
54	Duties	1	0,20%	99,00%
55	Energy costs	1	0,20%	99,20%
56	Lack of in-depht knowledge of offshore markets and culture	1	0,20%	99,40%
57	Lean manufacturing	1	0,20%	99,60%
58	Production sustainability	1	0,20%	99,80%
59	Qualified craftsmanship	1	0,20%	100,00%
60	Strengthen the brand image	1	0,20%	100%

Table 10: Breakdown by declared reshoring drivers

Source: Personal elaboration of the above-explained concepts (Data Source: European Reshoring Monitor database)

It's possible to notice that some reshoring drivers are described as formally different, but they are attributable to the same reshoring driver, in essence. For example, "Collaboration with suppliers" can be attributable to "Proximity to suppliers"; "Customer vicinity" to "Proximity to customers"; "Improvement in efficiency and Improvement of production efficiency" to "Increased home country manufacturing productivity"; "Increased production costs in the host country and Rationalization of costs" can be lead back to "Change in total costs of sourcing"; "Local employees' poor skills" to "Poor quality of offshored production"; "Qualified craftsmanship" and "Quality control" to "Quality" and finally "Supply chain reorganization" to "Firm's global reorganization". After this rearrangement, the number of reshoring driver has dropped to 50. Table 12 shows the final results of the rearrangement and the basis of the analysis.

Table 12 shows the reshoring drivers most frequent in the analysed database. Due to the different weight of the reshoring drivers claimed by the companies, it is deemed appropriate to focus the attention on those mainly relevant, identifying them with the first 10 which have been stated.

With a percentage of 8,9%, the motivation which drives most of the European companies to reshore, according to the analysis, is delivery time. Thus, it's possible to conclude that a reason connected to the supply chain flexibility is the one which recurs more frequently among the companies deciding to reshore their production activities back to their European country. As explained in Chapter 2, delivery time is of crucial importance since if it increases, it can generate costs and have a negative impact on the time efficiency of the firm's supply chain. Besides, if delivery time rises over a certain, predetermined, time, it can cause missed sales opportunities and thus, missed revenues and/or higher costs. The second-most-recurring reshoring driver is automation of production processes which is, in particular, related to the home country. Indeed, companies decide to reshore because their manufacturing process requires a specific and higher level of technology and innovation in order to be performant and efficient. In fact, some processes may require advanced technologies, innovative and sophisticated machines, or they may need to be executed close to the firm's R&D department in order to be constantly monitored and, eventually, enhanced, adjusted and updated. In this case, a company operating in a developed economy, should seriously consider locating its production activities close to its R&D centre. Moreover, with a percentage of 7,5%, European companies declared to have reshored because of a firm's global reorganization of the company. The following three reshoring drivers refer to the perceived value that customers have about companies. With a percentage of 7,4%, the poor quality of the offshored production covers the fourth position in terms of most recurrent reshoring drivers. Afterwards, the "Made in" effect, namely the origin of the product, is considered so important to drive a reshoring decision for 42 European companies (6,9%) operating in the manufacturing sector. Finally, in sixth place, the proximity to customers affected 40 reshoring decisions. Only in seventh position, with a percentage of 5,2%, it's possible to find the first reshoring driver related to costs, in particular, to change in total costs of sourcing. Afterwards, within the first 10 reshoring drivers, there isn't any motivation related to costs. Indeed, the eighth motivation refers to the know-how in the home country which the company can exploit differently than when offshoring abroad where the know-how is usually of a lower level compared to the domestic one. With a percentage of 3,9%, the untapped production capacity and thus, a motivation of production-capacity nature, is the following reshoring driver for number of companies' declarations. Finally, the tenth reshoring driver is the implementation of strategies based on product/process innovation which recalls the automation of production process with a specific reference to the business strategy.

N.	Drivers	Frequency	%	Cumulative %
1	Delivery time	54	8,90%	8,90%
2	Automation of production process	50	8,20%	17,10%
3	Firm's global reorganization	46	7,50%	24,60%
4	Poor quality of offshored production	45	7,40%	32,00%
5	Made in effect	42	6,90%	38,90%
6	Proximity to customers	40	6,60%	45,50%
7	Change in total costs of sourcing	32	5,20%	50,70%
8	Know-how in the home country	25	4,10%	54,80%
9	Untapped production capacity	24	3,90%	58,70%
10	Implementation of strategies based on product/process innovation	23	3,80%	62,50%
11	Logistics costs	22	3,60%	66,10%
12	Need for greater organizational flexibility	17	2,80%	68,90%
13	Economic crisis	16	2,60%	71,50%
14	Labour costs' gap reduction	16	2,60%	74,10%
15	Government support to relocation	14	2,30%	76,40%
16	Proximity to suppliers	14	2,30%	78,70%
17	Quality	13	2,10%	80,80%
18	Increased home country manufacturing productivity	12	2,00%	82,80%
19	Improve customer service	10	1,60%	84,40%
20	Unattractiveness of the offshore market	8	1,30%	85,70%
21	Exchange rate risk	7	1,10%	86,80%
22	Intellectual property protection	7	1,10%	87,90%
23	Loyalty to the home country	7	1,10%	89,00%
24	High inventory costs	6	1,00%	90,00%
25	R&D vicinity	6	1,00%	91,00%
26	Production flexibility	5	0,80%	91,80%
27	Corporate social responsibility image	4	0,70%	92,50%
28	Streamlining of supply chain	4	0,70%	93,20%
29	Customer demand increase	3	0,50%	93,70%
30	Customs issues	3	0,50%	94,20%
31	Lack of ex-ante location planning	3	0,50%	94,70%
32	Offshored activities' control complexity	3	0,50%	95,20%
33	Retailer/customer pressure (e.g., Wall-Mart)	3	0,50%	95,70%
34	Size of the lots	3	0,50%	96,20%
35	Termination of earlier supply relationships	3	0,50%	96,70%

36	Unions' pressure at the home country	3	0,50%	97,20%
37	Business strategy	2	0,30%	97,50%
38	Clean technology	2	0,30%	97,80%
39	Risk of brand counterfeiting	2	0,30%	98,10%
40	Brand repositioning	1	0,20%	98,30%
41	Brexit	1	0,20%	98,50%
42	Changes in taxation	1	0,20%	98,70%
43	Competitive pressure	1	0,20%	98,90%
44	Cultural and linguistic differences	1	0,20%	99,10%
45	Duties	1	0,20%	99,30%
46	Energy costs	1	0,20%	99,50%
47	Lack of in-depht knowledge of offshore markets and culture	1	0,20%	99,70%
48	Lean manufacturing	1	0,20%	99,90%
49	Production sustainability	1	0,20%	100,10%
50	Strengthen the brand image	1	0,20%	100%

Table 11: Re-elaborated breakdown by declared reshoring drivers

Source: Personal elaboration of the above-explained concepts

The analysis can be pushed to a further level gathering all the reshoring drivers in categories in order to have a clear big picture of the phenomenon in mind. The following table sums up the categories and the reshoring drivers forming each category because of affinity, of their similarity or the causes driving them.

Automation and Technology of (home country) production processes: Automation of production process, Clean technology, Increased home country manufacturing productivity, R&D vicinity
Changes in business strategy/ Firm's reorganization: Brand repositioning, Business strategy, Firm's global reorganization, Implementation of strategies based on product/process innovation
Changes in the external environment: Brexit, Competitive pressure, Customer demand increase, Economic crisis, Retailer/customer pressure, Unions' pressure at the home country
Changes in total costs: Change in total costs of sourcing, Changes in taxation, Duties, Energy costs, Exchange rate risk, High inventory costs, Labour costs' gap reduction, Logistics costs
Difficulties related to offshoring: Cultural and linguistic differences, Customs issues, Offshored activities' control complexity, Termination of earlier supply relationships, Unattractiveness of the offshore market, Lack of ex-ante location planning, Lack of in-depth knowledge of offshore markets and culture
Distinctiveness of the home country: Corporate social responsibility image, Intellectual property protection, Improve customer service, Know-how in the home country, Loyalty to the home country "Made in" effect, Risk of brand counterfeiting, Strengthen the brand image, Production sustainability
Government support to relocation
Quality: Poor quality of the offshored production, distinctive quality in the home country
Supply chain flexibility: Delivery time, Lean manufacturing, Need for greater organizational flexibility, Production flexibility, Streamlining of supply chain, Proximity to customers, Proximity to suppliers, Size of the lots, Untapped production capacity

Table 12: Categories of reshoring drivers

Source: Personal elaboration of the above-explained concepts

Having outlined the categories of the reshoring drivers, it's possible to further the analysis with one last table depicting the phenomenon from a broader perspective. Table 14 shows the representation of the motivations driving European companies, operating in the manufacturing sector, to reshore their production activities, gathered in 9 categories. The following lines will analyse only the first three reshoring categories.

Table 14 allows to state that the macro-motivation leading European companies operating in the manufacturing sector to reshore is connected to the improvement of their supply chain flexibility which accounts for 27% of the total number of reshoring drivers organized in categories. Indeed, offshoring stretches logistic and delivery times and leads to higher costs connected with inventories, transport, storage, long customers' waiting times. After supply chain flexibility, what drives companies to reshore is the distinctiveness of the home country which leads the European company to relocate its activities back to the domestic country which allows the firm to boast a better image in terms of corporate social responsibility and "Made in", it strengthens the brand

image, it enables the firm to exploit the domestic (and higher-level) know-how together with a higher protection of the intellectual property.

Costs are only the third category of drivers leading companies to reshore, meaning that they are still of great importance when making a location decision, but not of primary importance as one might mistakenly think. Change in total costs is a broad category which includes change in total costs of sourcing, taxation, energy costs, exchange rate risk, higher inventory costs, labour costs' gap reduction due to the increase of labour costs in developing countries and, finally, logistics costs. A separate discussion is deserved for the category quality which accounts for 58 cases but it's actually of great importance within the reshoring phenomenon. Quality is, indeed, a driver hardly attributable to only one category since it can relate to difficulties related to offshoring, because of the poor quality experienced by companies producing abroad, but also to the distinctiveness of the home country, if it is considered as the unique quality that the local craftsmanship is able to realize.

Thanks to the cumulative percentage it's possible to validate the findings and the Thesis supported by this study. Indeed, the cumulative percentage shows that total cost still constitutes an important driver for international manufacturing location decisions but it's neither the only nor the most relevant one. Factors related to the supply chain flexibility and to the distinctiveness in the home country gained so much importance that companies cannot disregard them anymore.

Driver Category	Frequency	%	Cumulative %
Supply chain flexibility	162	27%	27%
Distinctiveness in the home country	99	16%	43%
Changes in total costs	86	14%	57%
Changes in business strategy/ Firm's reorganization	72	12%	69%
Automation and Technology of (home country) production processes	70	11%	80%
Quality (poor quality of the offshored production + distinctive quality in the home country)	58	10%	90%
Changes in the external environment	27	4%	94%
Difficulties related to offshoring	22	4%	98%
Government support to relocation	14	2%	100%

Table 13: Reshoring drivers grouped according to categories

Source: Personal elaboration of the above-explained concepts

With respect to the geographical distribution of reshoring drivers, it's interesting to notice a peculiarity of the Italian case. Indeed, the most relevant reshoring driver is the "Made in" effect which has been declared by the 64% of the analysed Italian companies. Such evidence can be explained considering the weight of the fashion industry on the total of reshoring decisions implemented in Italy. Italy can boast a unique history,

craftsmanship, know-how, savoir-faire and expertise in all the sectors forming the fashion system (textile, wearing apparel, footwear, leather goods). This unique characteristic, combined with an increasing customers' desire to know about the origin of a product and the undeniable and inimitable value of the brand "Made in Italy", had an impact on Italian companies' decision to relocate their production activities back in Italy. This decision has also been fostered by the presence of business clusters. The business cluster, or industrial district, is connected with a specific business environment where a geographic concentration of suppliers, manufacturing firms and businesses is present, offering specific resources and a high level of expertise within a certain industry. The industrial district allows firms operating in its geographic area to increase their productivity due to the network effect and external economies. Indeed, Italian manufacturing companies, which reshore their production activities back to Italy, rely on a unique network of suppliers and craftsmen's workshops which constitute relevant clusters which encourage them to bring their production back. These considerations make the "Made in" effect a crucial factor leading companies operating in the wearing, footwear, leather goods sector to reshore their production activities. Moreover, the "Made in" effect contributes to the brand image and thus, to the effective positioning of the brand. Therefore, it should be carefully and thoroughly managed in the sense of a value-driven arrangement of production and sourcing. Indeed, consumers are more and more interested in the provenance of the products they buy and use and firms, becoming aware of it, need to be more cautious about the negative aftermaths that offshoring production processes can bring.

The analysis of the original database has led to the result that a total of 12,840 new jobs have been created thanks to the phenomenon of reshoring between 2014 and 2018. Moreover, two issues, connected to two different reshoring drivers growing in importance, emerge from the analysis. The former is that companies which reshore in order to leverage the untapped production capacity available in the home country do not increase the number of new jobs created. The latter is that the increasing weight of automation of production processes implies limited employment creation.

3.5. Updated framework of international location decisions within the TCLF industry in Europe

Figure 16 classifies the reshoring drivers according to the theory-based framework depicted in chapter 2⁴⁴ and according to the analysis on the European database described in the previous paragraph.

Comparing the theory-based framework describing the reshoring drivers with the empirical data elaborated in the current chapter, it's possible to notice an overlap of almost all the drivers listed in the theory-based framework. What is clear from the comparison is that some drivers did not emerge from the study of the literature about the reshoring phenomenon but did come up from the investigation of the empirical data. In particular, European firms which reshored their production activities did mention "firm's global reorganization" and "brand repositioning" among the drivers leading them to relocate their manufacturing activities back to their home country. These drivers are not included in the table depicting the theory-based

⁴⁴ See page 60 of Chapter 2 of the current Thesis for further information.

framework and relate to the aim of the reshoring strategy which the company implements. Moreover, from the theory-based framework drivers connected to suppliers operating in the domestic country and in the host country did not emerge. The former are stated as the fifteenth reason leading companies to reshore their production activities back in their European country, while the latter lack an important frequency among the other reshoring drivers. Specifically, “proximity to suppliers” and “termination of earlier supply relationship” are the reshoring drivers declared by European companies. Furthermore, other aspects which didn’t arise from Chapter 2 are “strengthen the brand image” and “loyalty to the home country” which, instead, are reshoring drivers claimed and reported by European companies implementing such strategy. Besides, while the theory-based framework indicated a general “changes in the global economy” and “changes in the global competitive dynamics”, the analysed companies deepened these drivers with more specific motivations such as “economic crisis”, “Brexit”, “retailer/customer pressure (e.g., Wall-Mart)”, “unattractiveness of the offshore market”, “unions' pressure at the home country”, “competitive pressure”. More specific reasons have also been declared with regard to innovation and technology aspect: “clean technology”, “implementation of strategies based on product/process innovation”, “lean manufacturing”, “production sustainability”.

3.6. Discussion

This Thesis pursues the objective of understanding the phenomenon of reshoring and the reasons behind it, investigating first, from a theoretical point of view and, then, from an empirical standpoint, the drivers leading European companies to relocate their production activities, previously offshored, back to their home country. In this paragraph, the main findings emerging from the analysis are discussed.

First, the theory-based framework outlined in Chapter 2 proves effective in classifying the different reshoring drivers emerging from the empirical analysis. Thus, the database analysed in the current chapter confirms the strength and the robustness of the framework built upon the extant literature. In light of the theoretical and empirical studies presented in previous paragraphs, it’s relevant to highlight that the key drivers leading European companies to make the reshoring decision are not just related to costs. Indeed, there are other meaningful factors, with delivery time, automation, quality and “made in” effect becoming dominant drivers. Moreover, the poor quality of the offshored productions together with the current increase in costs in host countries, have hindered the advantages stemmed from offshoring and led companies to reshore their production activities back to their home country. From the analysis it’s also possible to understand that the firm’s production is reshored when the products embody distinctive elements which are difficult to reproduce in other, foreign, productive environments. For example, in order to realise some products, intangible assets such as artisan workmanship, specific skills, positive externalities generated by the industrial context and innovative technologies are required. Relocating production activities back to the home country allows to exploit such resources and, secondly, it enables the firm to position its products in higher market segments and charge a higher price. Moreover, reshoring affects positively the local supply network, industrial system

and level of employment leading to a strengthening of the national and local manufacturing supply system. The current study presented in this Thesis, notwithstanding its limitations, demonstrated that European companies operating in the manufacturing sector decided to relocate their production activities back to their domestic country mainly because of drivers related to the company's value (to recall the theory-based framework illustrated in Chapter 2) and not to costs. From Table 14, which groups the reshoring drivers according to determined categories, emerges that costs cover only the third position with a percentage of 14% of the total reshoring decisions. The first two positions are covered, respectively, by factors related to supply chain flexibility with 162 reshoring decisions and a percentage of 27% (delivery time, lean manufacturing, need for greater organizational flexibility, production flexibility, streamlining of supply chain, proximity to customers, proximity to suppliers, size of the lots, untapped production capacity) and drivers related to the distinctiveness in the home country with 99 reshoring decisions and a percentage of 16% (corporate social responsibility image, intellectual property protection, improve customer service, know-how in the home country, loyalty to the home country "Made in" effect, risk of brand counterfeiting, strengthen the brand image, production sustainability). Overall, the analysis leads to the following results: in Europe, the reshoring strategy has been mainly implemented by companies operating in the food sector, wearing apparel sector, manufacture of machinery and equipment n.e.c. and manufacture of computer, electronic and optical products sector. Statistics show that these companies had mostly offshored their production activities to Asia, followed by Eastern Europe, and that the top three European countries for number of reshoring decisions are, in order, United Kingdom, Italy and France. As far as the time period is concerned, reshoring has been implemented at increasing rate since 2011 and reached its peak, hitherto, in 2017. Moreover, as previously outlined, the reasons driving European companies operating in the manufacturing sector to reshore are several. Among them, the distinctiveness of the home country in terms of skilled workforce, quality of the products, "Made in" effect, technology provided, and the factors related to a leaner supply chain, surpass, for importance, the drivers connected to costs, which proved crucial for offshoring decisions. Therefore, what's interesting to notice is that costs do not longer cover a prominent position in the companies' production location decisions. Companies started to consider more accurately and thoroughly factors which go beyond costs and affect the value of the company itself, as well as the value of the company as perceived by customers. These findings suggest a disconnection between drivers for reshoring and drivers for offshoring. A plausible interpretation of these results is that lower costs of offshoring brought with them lower quality in finished products, difficulties in controlling foreign suppliers and coordinating all the parties, obsolete technologies implemented in the production processes affecting the service level and other negative aftermaths. This made companies realise the importance of the previously penalised factors and focus on them in order to keep the company's value high, the customers' satisfaction met and the firm's performance efficient. Besides, the increase in customers' demand for customization and higher variety of products, the contraction in costs differentials among different countries, the increase of supply chain risks, complications and deadlocks in controlling offshored activities

and the coordination of long-distance partnerships, undermine the benefits provided by lower input costs on performance and bring companies to change (reverse) their location decision.

3.7. An exploratory data analysis using Gephi software

Leaving the discussion on the reshoring drivers and focusing on the geographical aspects of the phenomenon, another analysis can be conducted.

With the database set out in previous paragraphs, an exploratory data analysis is carried out. The exploratory data analysis is a statistical analysis, applicable to data sets, aimed at investigating their main characteristics with the help of graphical visualizations. Its goal is to uncover models, test hypothesis, find irregularities, examine assumptions and to increase the existing insights about the data set analysed. The exploratory data analysis has been conducted using the open-source and free software Gephi⁴⁵. Gephi is the leading exploration and visualization software which allows to import and visualize graphs and networks. The software Gephi is used to visually describe network effects (or network externalities) which are known for the value that an additional user of a good or of a service generates for the other users. Thus, the network effect increases the value of a good or a service and the total value depends on the number of users involved. In light of this, it's possible to define the network economy as the interlinking of economic activities and business processes where goods and services are produced and value is added thanks to the network, on a local and/or global scale.

From an operational standpoint, the software Gephi, as previously declared, has been used in order to conduct an exploratory analysis of our data set. The plugin "GeoLayout" has been installed and an Excel file has been created ad hoc. Indeed, in order to generate the network desired, Gephi needs data about "nodes" and "edges". In our analysis the "nodes" correspond to the companies and their location decisions (offshoring and reshoring), while the "edges" refer to the reverse in the location decision. For example, the Norwegian company Abax decided to offshore its production to Lithuania and then reshore it back to Norway. In the Gephi graph, this reshoring decision is represented by two nodes, one in Norway and one in Lithuania, and an arrow (the "edge") which joins the two dots (the "nodes"). Each node has been inserted in the Gephi graph with the data regarding its latitude and longitude. Latitude and longitude are intended those of countries' capital cities (for example: latitude and longitude of Rome are assumed to be those of Italy) and have been researched on an online database⁴⁶. Layout algorithms set the graph shape and for the current analysis the "GeoLayout" has been chosen and launched.

With the "GeoLayout" it's possible to visually understand the scale of the reshoring phenomenon. In particular, having analysed European companies, there is a concentration of nodes in Europe corresponding to the companies' reshoring decisions. The nodes in Eastern Europe, as well as the nodes outside Europe, correspond, on the contrary, to the respective offshoring decisions. The Gephi "GeoLayout" allows us to visually

⁴⁵ Gephi software, <https://gephi.org/>

⁴⁶ <https://www.latlong.net/place/>

understand the pre-eminence of Asia, and, in particular, China, as a destination chosen by European companies operating in the manufacturing sector to offshore their production activities prior to reshoring. Few cases of offshoring can be registered in Oceania and America, while an important position in terms of number of nodes is also covered by Eastern Europe, which is another attractive destination chosen by European companies for offshoring, prior to the implementation of reshoring.

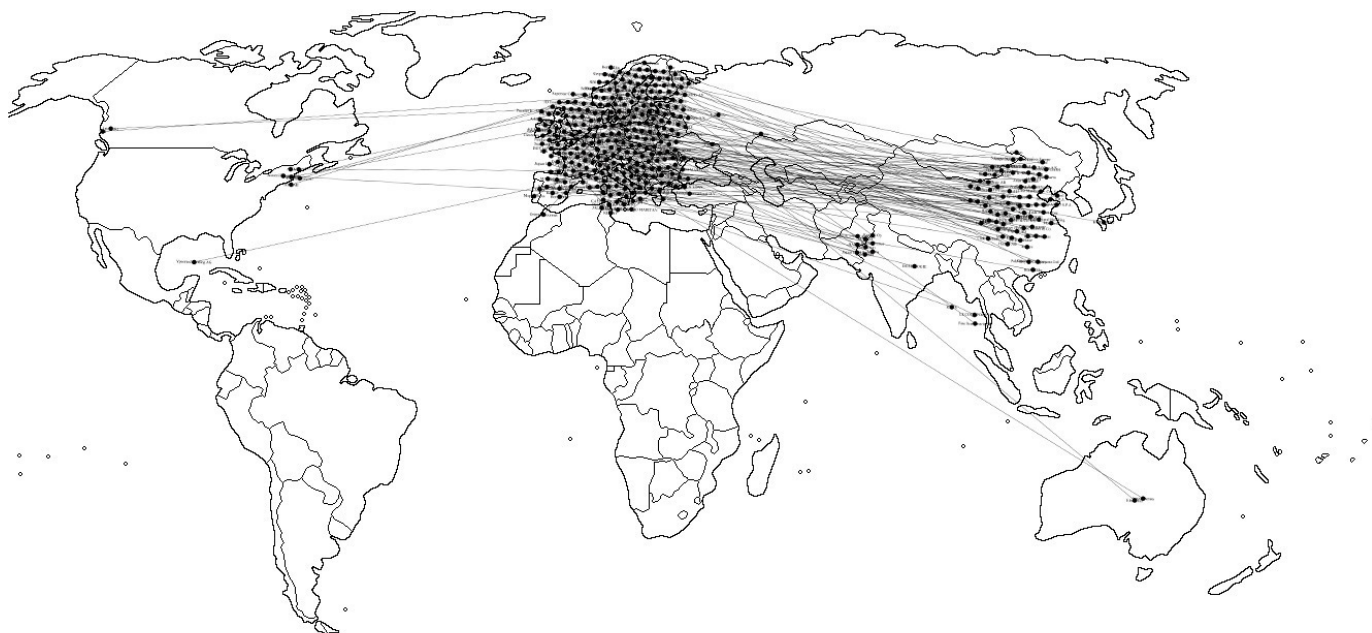


Figure 17: Gephi graph

Source: Personal elaboration of the above-explained concepts

3.8. Conclusions

Chapter 3 constitutes the core of the current Thesis, since it encompasses the empirical analysis which is the underpinning of this study and the basis for future researches. Accordingly, on the basis of the theory-based framework outlined in Chapter 2 and elaborated in light of the literature and the evidences presented in Chapter 1, the empirical analysis has been conducted in Chapter 3. First and foremost, the current chapter demonstrates that the theory-based framework outlined in Chapter 2 proves effective in classifying the different reshoring drivers emerging from the empirical analysis. Thus, the database analysed in the current chapter confirms the strength and the robustness of the framework built upon the extant literature. Moreover, what's possible to conclude is that the key drivers leading European firms operating in the Manufacturing sector to undertake a reshoring initiative are not just related to costs. Ultimately, there are other meaningful factors, with delivery time, automation, quality and “made in” effect becoming dominant drivers, confirming the theory supported throughout all this Thesis according to which production location decision-making has become a process which requires a dynamic approach from companies. Furthermore, the empirical analysis has led to relevant results regarding the host and home countries of companies undertaking offshoring and

then reshoring strategies. These results have also been represented graphically through the use of the software Gephi, which shows a network which demonstrates the results of the analysis. Indeed, the Gephi's visual representation shows that European companies had mostly offshored their production activities to Asia (in particular, China), followed by Eastern Europe, and that the top three European countries for number of reshoring decisions are, in order, United Kingdom, Italy and France.

Moreover, as previously outlined, the reasons driving European companies operating in the manufacturing sector to reshore, which stem both from the empirical analysis and the theory-based framework are mainly: the distinctiveness of the home country in terms of skilled workforce, quality of the products, "Made in" effect, technology provided, and the factors related to a leaner supply chain. These drivers surpass, for importance, the drivers connected to costs, which proved crucial for offshoring decisions. Therefore, what's interesting to notice is that costs do not longer cover a prominent position in the companies' production location decisions. Companies living a dynamic international environment have started to consider more accurately and thoroughly factors which go beyond costs and affect the value of the company itself, as well as the value of the company as perceived by customers.

Conclusions, limitations, future research and implications for managers and policymakers

The goal of this study is to contribute to the general understanding of international manufacturing location decisions analysed through the practice of offshoring and reshoring, with a major focus on the latter. Furthermore, the analysis included in this Thesis is intended to advance the theoretical and the empirical insights about the phenomenon of reshoring and, in particular, about the drivers behind it. Through the whole Thesis, offshoring and reshoring are considered as two different specifications of the generic relocation of production activities: offshoring refers to the change of manufacturing locations from the home country to a foreign country, while reshoring refers to the firm's activities' relocation in the opposite direction, from a foreign location back to the domestic country. As global competitive and economic conditions change, companies' business model must evolve together with the company's supply chain. The latter, indeed, needs to be renewed and adapted to new scenarios and environments in order to maintain the firm's competitive advantage.

Overall, this study sheds light on a reverse (turnaround) in companies' behaviour from a ruthless pursuit of cost advantages to a wiser reconsideration of all the factors which make a supply chain sustainable in the long run and able to produce value for the customers and the company itself. Additionally, this work suggests that nowadays companies must be able to adapt to changes in the external environment and shape their value chain in a flexible way, in order to preserve their competitive advantage.

As far as the reshoring dilemma is concerned, in order to overcome the dichotomous conceptualization of the reshoring phenomenon, the approach followed throughout this Thesis is the one according to which reshoring has to be considered as a step in the "non-linear" evolutive manufacturing location decision process. Accordingly, reshoring is an answer to changes occurred in the firm's internal and/or external environment. However, it's still important to highlight that manufacturing sourcing decisions deal with many factors and motivations. Thus, individual global manufacturing location decisions should be analysed separately since every case is unique and the complex phenomenon of reshoring can stem from different motivations and conditions, depending on individual cases. What is important to bear in mind is that the global environment where firms operate is continuously changing and this Thesis aims at highlighting that a dynamic long-term vision about the manufacturing location is essential, in order to choose the optimal strategy.

As far as the drivers are concerned, this work proves that the reasons pushing companies to offshore or reshore, partly or totally, their manufacturing processes are several and constitute a bundle of drivers which act conjointly. Overall, the theory-based framework outlined in Chapter 2 of the current Thesis identifies 41 prominent motivations: 10 drivers for offshoring and 31 drivers for reshoring.

A cursory look at the interpretative framework of international location decisions drivers reveals that the two bundles of drivers differ in one aspect in particular: while offshoring is mainly driven by cost-efficiency drivers, in the reshoring quadrants stood out two categories of drivers, cost-efficiency motives and motivations related to the company's value. The latter refers to the creation of value perceived by customers and pertains

to the reshoring drivers which do not directly relate to costs but are aimed at enhancing the company's value in terms of customers' perceived quality, distinctive services and innovation.

Overall, this Thesis demonstrates that reshoring drivers are connected with unexpected consequences of offshoring, changes in the internal or external environment, drawbacks of locating activities abroad or advantages of being located within the home country, products' quality, proximity to key customers, (lower) delivery and lead times, well-established infrastructures at home, proximity to R&D, availability of new technologies and automation at home, "Made in" effect and, finally, hidden costs related to a previous offshoring decision. Hence, the topic that this Thesis aims at investigating, reshoring, proves to be a heterogeneous phenomenon, meaning that it constitutes a response to various challenges a company may face. What stands out from the analysis is that cost is no longer the major force driving companies' location decisions. Instead, other factors such as quality, market access, supply chain-related drivers (delivery lead time, logistic costs, flexibility, suppliers' availability), innovation, have emerged as crucial elements to decide the location of a firm's production activities and nowadays rank as the most important factors. It is possible to draw the conclusions that production location decisions have shifted from being merely operational decisions based on cost-efficiency to becoming strategical and dynamic decisions, meaningful for the core business of a firm and thus, encompassing many other aspects in addition to cost-related factors.

The theory-based framework outlined in Chapter 2 has been applied to concrete cases of value chain activities' location decisions, in order to define and interpret the behaviour of companies undertaking reshoring strategies. The final database presented in Chapter 3, constituted by 196 reshoring decisions, is assumed to be representative of all the reshoring initiatives undertaken by European companies operating in the Manufacturing sector and having reshored a production activity, from 2011 to 2019. The empirical analysis confirmed the findings stemming from the first two chapters of this Thesis in terms of offshoring and reshoring drivers, namely that reshoring decisions implemented by European companies operating in the manufacturing sector are not just related to costs but also to delivery time, automation, quality and "made in" effect which are becoming dominant drivers. A plausible interpretation of these results is that lower costs of offshoring brought with them lower quality in finished products, difficulties in controlling foreign suppliers and coordinating all the parties, obsolete technologies implemented in the production processes affecting the service level and other negative aftermaths. This made companies realise the importance of the previously penalised factors and focus on them in order to keep the company's value high, the customers' satisfaction met and the firm's performance efficient. Besides, the increase in customers' demand for customization and higher variety of products, the contraction in costs differentials among different countries, the increase of supply chain risks, complications and deadlocks in controlling offshored activities and the coordination of long-distance partnerships, undermine the benefits provided by lower input costs on performance and bring companies to change (reverse) their location decision.

From the analysis it's also possible to understand that the firm's production is reshored when the products embody distinctive elements which are difficult to reproduce in other, foreign, productive environments. For

example, in order to realise some products, intangible assets such as artisan workmanship, specific skills, positive externalities generated by the industrial context and innovative technologies are required. Relocating production activities back to the home country allows to exploit such resources and, secondly, it enables the firm to position its products in higher market segments and charge a higher price. Moreover, reshoring affects positively the local supply network, industrial system and level of employment leading to a strengthening of the national and local manufacturing supply system.

The current study presented in this Thesis, notwithstanding its limitations, demonstrated that European companies operating in the manufacturing sector decided to relocate their production activities back to their domestic country mainly because of drivers related to supply chain flexibility and to the distinctiveness of the home country and not to costs. In addition, it's been interesting to evaluate the results coming from the analysis by sector: in Europe, the reshoring strategy has been mainly implemented by companies operating in the food sector, wearing apparel sector, manufacture of machinery and equipment n.e.c. and manufacture of computer, electronic and optical products sector. Statistics show that these companies had mostly offshored their production activities to Asia, followed by Eastern Europe, and that the top three European countries for number of reshoring decisions are, in order, United Kingdom, Italy and France. As far as the time period is concerned, reshoring has been implemented at increasing rate since 2011 and reached its peak, hitherto, in 2017.

As far as the limitations are concerned, despite the increasing rate of firms considering and implementing a reshoring strategy and the consequential interest in companies' reshoring initiatives coming from academics, it has to be noticed that quantitative data of the phenomenon are still fragmented. This lack of information about reshoring cases is often due to the fact that the interested business unit is often below the level of a plant (e.g., a production line) and therefore data are difficult, if not impossible, to obtain. Moreover, most of reshoring initiatives are implemented as part of the company's business strategy. This means that, depending on the aim that the company wants to achieve implementing the reshoring strategy, the firm can decide to not release the announcement of the new strategy and keep it within the company's borders. This makes the search for information about the reshoring phenomenon more arduous. Furthermore, when reshoring is implemented as a corrective strategy of a previous, erroneous, offshoring strategy, the company may want to proceed secretly, otherwise it would have to admit the wrong strategic mistake concerning the offshoring, and managers may be reluctant to discuss the topic with researchers.

Building a sample of companies without any bias and then analysing each company's localization strategy individually would have meant, in all likelihood, to omit companies which have undertaken a reshoring initiative, because of a lack of the company's public announcement of it or a journalist's disclosure of the news. This explains why it has been preferred to start from the broad database accessible in the European Reshoring Monitor website and build the analysis on secondary data. Indeed, there are difficulties to build a relevant database underlying on primary data instead of on fragmented and maybe imprecise secondary data. Currently, contributions to the topic involve survey conducted on a national scale (Kinkel and Maloca, 2009;

Fratocchi et al. 2013) and individual firm's case analysis (Martinez-Mora and Merino, 2014) but the phenomenon requires further analysis and studies.

Moreover, some motivations connected to production location decisions could have been underestimated. However, considerable effort has been spent in assessing every data released in this study.

Understanding the major drivers leading companies to offshore and then reshore, as well as the main consequences experienced by firms which reshored their production activities, is crucial in order to guide future location decisions and to move towards the right-shoring, namely the right balance of manufacturing activities at home and abroad. As far as the future researches are concerned, they could refine the theory-based framework presented in this study through in-depth case studies, investigating why certain firms reshore their production activities while others keep practicing offshoring. Moreover, since the analysis carried out in this Thesis focuses on European companies operating in the manufacturing sector and having reshored production activities, one of the three requirements imposed can be changed: future researches can, thus, investigate non-European companies, operating in a different sector or reshoring a different business activity.

Finally, an interesting and useful topic on which future research should focus regards the consequences and the effects that reshoring has on a company's performance. This means to analyse the performance of a company during the years after the implementation of the reshoring strategy.

As far as the implications are concerned, the current study is useful to draw important implications for both managers and policymakers.

Since reshoring has proved to be an effective strategy to reduce logistic and production costs, to improve products' quality, to increase the business efficiency and to raise supply chain's flexibility, managers should consider it attentively. The bundle of reshoring drivers built on the literature review and supported by the empirical analysis provides executives and managers a comprehensive overview of the factors which have to be taken into consideration by a company when choosing a grounded production location decision. Moreover, the frequency of each driver recorded in the tables laid down in Chapter 3 can help managers with an initial evaluation of their relative importance. Overall, the current study prompts managers to carefully assess the production location decision since it depends on a complex bundle of factors related both to the internal and external environment. Thus, the production location decision should be made after a careful evaluation of all the factors and it should be grounded on dynamic and strategic assessments.

As far as the implications for policymakers are concerned, these are crucial in order to make the reshoring phenomenon grow within a country. Indeed, reshoring has positive implications for employment and the industrialization of a certain area. In order to exploit the positive consequences that reshoring can generate, local and national policymakers should implement policies with the objective of increasing the value of a certain area and building territorial ecosystems able to favour the generation (or the enhancement) of business environments. Indeed, as also this study mentions with the Italian case, companies are more willing to relocate their production activities back to their home country if this one hosts industrial clusters with strong networks

of suppliers, a certain level of industrial innovation and a positive business environment suitable for efficient performance. By favourable and positive business environment it is meant an environment characterized by the availability of craftsmanship, presence of suppliers and leading enterprises, banks willing to invest and support reshoring initiatives, public institutions capable of guiding these processes, technical schools and universities able to teach specific competences. That's why, it's extremely important that policymakers pay attention to these aspects in order to prompt reshoring initiatives and benefit from them in terms of employment and level of industrialization of the area and the country.

Table of figures

Figure 1: 2017 A.T. Kearney Global Services Location Index	19
Figure 2: Reshoring options.....	27
Figure 3: Reshoring paths	28
Figure 4: Conceptual model for location decision-making	30
Figure 5: Reshoring Entry Mode	34
Figure 6: The internalization strategies of enterprises.....	35
Figure 7: Number of reshoring cases by country, 2014–2018.....	38
Figure 8: Reshoring case frequency by subsector (within the “Manufacturing” sector).....	40
Figure 9: Reshoring motivations	40
Figure 10: Reshoring motivations sorted by manufacturing subsectors.....	41
Figure 11: Cumulative manufacturing jobs (2010-2018)	43
Figure 12: Jobs Announcement by year (2010-2018)	43
Figure 13: Offshoring drivers	63
Figure 14: Reshoring drivers	67
Figure 15: Interpretative framework of offshoring and reshoring drivers.....	68
Figure 16: Fields filled for the analysis	75
Figure 17: Gephi graph.....	99

Table of tables

Table 1: Personal summary and visual elaboration of the above-explained concepts	17
Table 2: Relationship Between Eclectic Theory and Offshoring Constructs	51
Table 3: Relation between factors related to the home country and the localization of firms’ production activities within the home country.....	60
Table 4: Breakdown by home country.....	78
Table 5: Breakdown by host country	80
Table 6: Breakdown by host country (focus on continents).....	81
Table 7: Reshoring cases, a breakdown by industry sub-sector	84
Table 8: Breakdown by industry sub-sector (focus on offshoring decisions).	86
Table 9: Breakdown by time.....	87
Table 10: Breakdown by declared reshoring drivers	89
Table 11: Re-elaborated breakdown by declared reshoring drivers	92
Table 12: Categories of reshoring drivers	93
Table 13: Reshoring drivers grouped according to categories	94
Table 14: Database of analysed companies.	127

Appendix 1

C - Manufacturing

C10 - Manufacture of food products

C10.1 - Processing and preserving of meat and production of meat products

C10.1.1 - Processing and preserving of meat

C10.1.2 - Processing and preserving of poultry meat

C10.1.3 - Production of meat and poultry meat products

C10.2 - Processing and preserving of fish, crustaceans and molluscs

C10.2.0 - Processing and preserving of fish, crustaceans and molluscs

C10.3 - Processing and preserving of fruit and vegetables

C10.3.1 - Processing and preserving of potatoes

C10.3.2 - Manufacture of fruit and vegetable juice

C10.3.9 - Other processing and preserving of fruit and vegetables

C10.4 - Manufacture of vegetable and animal oils and fats

C10.4.1 - Manufacture of oils and fats

C10.4.2 - Manufacture of margarine and similar edible fats

C10.5 - Manufacture of dairy products

C10.5.1 - Operation of dairies and cheese making

C10.5.2 - Manufacture of ice cream

C10.6 - Manufacture of grain mill products, starches and starch products

C10.6.1 - Manufacture of grain mill products

C10.6.2 - Manufacture of starches and starch products

C10.7 - Manufacture of bakery and farinaceous products

C10.7.1 - Manufacture of bread; manufacture of fresh pastry goods and cakes

C10.7.2 - Manufacture of rusks and biscuits; manufacture of preserved pastry goods and cakes

C10.7.3 - Manufacture of macaroni, noodles, couscous and similar farinaceous products

C10.8 - Manufacture of other food products

C10.8.1 - Manufacture of sugar

C10.8.2 - Manufacture of cocoa, chocolate and sugar confectionery

C10.8.3 - Processing of tea and coffee

C10.8.4 - Manufacture of condiments and seasonings

C10.8.5 - Manufacture of prepared meals and dishes

C10.8.6 - Manufacture of homogenised food preparations and dietetic food

C10.8.9 - Manufacture of other food products n.e.c.

C10.9 - Manufacture of prepared animal feeds

C10.9.1 - Manufacture of prepared feeds for farm animals
C10.9.2 - Manufacture of prepared pet foods
C11 - Manufacture of beverages
C11.0 - Manufacture of beverages
C11.0.1 - Distilling, rectifying and blending of spirits
C11.0.2 - Manufacture of wine from grape
C11.0.3 - Manufacture of cider and other fruit wines
C11.0.4 - Manufacture of other non-distilled fermented beverages
C11.0.5 - Manufacture of beer
C11.0.6 - Manufacture of malt
C11.0.7 - Manufacture of soft drinks; production of mineral waters and other bottled waters
C12 - Manufacture of tobacco products
C12.0 - Manufacture of tobacco products
C12.0.0 - Manufacture of tobacco products
C13 - Manufacture of textiles
C13.1 - Preparation and spinning of textile fibres
C13.1.0 - Preparation and spinning of textile fibres
C13.2 - Weaving of textiles
C13.2.0 - Weaving of textiles
C13.3 - Finishing of textiles
C13.3.0 - Finishing of textiles
C13.9 - Manufacture of other textiles
C13.9.1 - Manufacture of knitted and crocheted fabrics
C13.9.2 - Manufacture of made-up textile articles, except apparel
C13.9.3 - Manufacture of carpets and rugs
C13.9.4 - Manufacture of cordage, rope, twine and netting
C13.9.5 - Manufacture of non-wovens and articles made from non-wovens, except apparel
C13.9.6 - Manufacture of other technical and industrial textiles
C13.9.9 - Manufacture of other textiles n.e.c.
C14 - Manufacture of wearing apparel
C14.1 - Manufacture of wearing apparel, except fur apparel
C14.1.1 - Manufacture of leather clothes
C14.1.2 - Manufacture of workwear
C14.1.3 - Manufacture of other outerwear
C14.1.4 - Manufacture of underwear
C14.1.9 - Manufacture of other wearing apparel and accessories

C14.2 - Manufacture of articles of fur
C14.2.0 - Manufacture of articles of fur
C14.3 - Manufacture of knitted and crocheted apparel
C14.3.1 - Manufacture of knitted and crocheted hosiery
C14.3.9 - Manufacture of other knitted and crocheted apparel
C15 - Manufacture of leather and related products
C15.1 - Tanning and dressing of leather; manufacture of luggage, handbags, saddlery and harness; dressing and dyeing of fur
C15.1.1 - Tanning and dressing of leather; dressing and dyeing of fur
C15.1.2 - Manufacture of luggage, handbags and the like, saddlery and harness
C15.2 - Manufacture of footwear
C15.2.0 - Manufacture of footwear
C16 - Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials
C16.1 - Sawmilling and planing of wood
C16.1.0 - Sawmilling and planing of wood
C16.2 - Manufacture of products of wood, cork, straw and plaiting materials
C16.2.1 - Manufacture of veneer sheets and wood-based panels
C16.2.2 - Manufacture of assembled parquet floors
C16.2.3 - Manufacture of other builders' carpentry and joinery
C16.2.4 - Manufacture of wooden containers
C16.2.9 - Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials
C17 - Manufacture of paper and paper products
C17.1 - Manufacture of pulp, paper and paperboard
C17.1.1 - Manufacture of pulp
C17.1.2 - Manufacture of paper and paperboard
C17.2 - Manufacture of articles of paper and paperboard
C17.2.1 - Manufacture of corrugated paper and paperboard and of containers of paper and paperboard
C17.2.2 - Manufacture of household and sanitary goods and of toilet requisites
C17.2.3 - Manufacture of paper stationery
C17.2.4 - Manufacture of wallpaper
C17.2.9 - Manufacture of other articles of paper and paperboard
C18 - Printing and reproduction of recorded media
C18.1 - Printing and service activities related to printing
C18.1.1 - Printing of newspapers

C18.1.2 - Other printing

C18.1.3 - Pre-press and pre-media services

C18.1.4 - Binding and related services

C18.2 - Reproduction of recorded media

C18.2.0 - Reproduction of recorded media

C19 - Manufacture of coke and refined petroleum products

C19.1 - Manufacture of coke oven products

C19.1.0 - Manufacture of coke oven products

C19.2 - Manufacture of refined petroleum products

C19.2.0 - Manufacture of refined petroleum products

C20 - Manufacture of chemicals and chemical products

C20.1 - Manufacture of basic chemicals, fertilisers and nitrogen compounds, plastics and synthetic rubber in primary forms

C20.1.1 - Manufacture of industrial gases

C20.1.2 - Manufacture of dyes and pigments

C20.1.3 - Manufacture of other inorganic basic chemicals

C20.1.4 - Manufacture of other organic basic chemicals

C20.1.5 - Manufacture of fertilisers and nitrogen compounds

C20.1.6 - Manufacture of plastics in primary forms

C20.1.7 - Manufacture of synthetic rubber in primary forms

C20.2 - Manufacture of pesticides and other agrochemical products

C20.2.0 - Manufacture of pesticides and other agrochemical products

C20.3 - Manufacture of paints, varnishes and similar coatings, printing ink and mastics

C20.3.0 - Manufacture of paints, varnishes and similar coatings, printing ink and mastics

C20.4 - Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations

C20.4.1 - Manufacture of soap and detergents, cleaning and polishing preparations

C20.4.2 - Manufacture of perfumes and toilet preparations

C20.5 - Manufacture of other chemical products

C20.5.1 - Manufacture of explosives

C20.5.2 - Manufacture of glues

C20.5.3 - Manufacture of essential oils

C20.5.9 - Manufacture of other chemical products n.e.c.

C20.6 - Manufacture of man-made fibres

C20.6.0 - Manufacture of man-made fibres

C21 - Manufacture of basic pharmaceutical products and pharmaceutical preparations

C21.1 - Manufacture of basic pharmaceutical products
C21.1.0 - Manufacture of basic pharmaceutical products
C21.2 - Manufacture of pharmaceutical preparations
C21.2.0 - Manufacture of pharmaceutical preparations
C22 - Manufacture of rubber and plastic products
C22.1 - Manufacture of rubber products
C22.1.1 - Manufacture of rubber tyres and tubes; retreading and rebuilding of rubber tyres
C22.1.9 - Manufacture of other rubber products
C22.2 - Manufacture of plastics products
C22.2.1 - Manufacture of plastic plates, sheets, tubes and profiles
C22.2.2 - Manufacture of plastic packing goods
C22.2.3 - Manufacture of builders' ware of plastic
C22.2.9 - Manufacture of other plastic products
C23 - Manufacture of other non-metallic mineral products
C23.1 - Manufacture of glass and glass products
C23.1.1 - Manufacture of flat glass
C23.1.2 - Shaping and processing of flat glass
C23.1.3 - Manufacture of hollow glass
C23.1.4 - Manufacture of glass fibres
C23.1.9 - Manufacture and processing of other glass, including technical glassware
C23.2 - Manufacture of refractory products
C23.2.0 - Manufacture of refractory products
C23.3 - Manufacture of clay building materials
C23.3.1 - Manufacture of ceramic tiles and flags
C23.3.2 - Manufacture of bricks, tiles and construction products, in baked clay
C23.4 - Manufacture of other porcelain and ceramic products
C23.4.1 - Manufacture of ceramic household and ornamental articles
C23.4.2 - Manufacture of ceramic sanitary fixtures
C23.4.3 - Manufacture of ceramic insulators and insulating fittings
C23.4.4 - Manufacture of other technical ceramic products
C23.4.9 - Manufacture of other ceramic products
C23.5 - Manufacture of cement, lime and plaster
C23.5.1 - Manufacture of cement
C23.5.2 - Manufacture of lime and plaster
C23.6 - Manufacture of articles of concrete, cement and plaster
C23.6.1 - Manufacture of concrete products for construction purposes

C23.6.2 - Manufacture of plaster products for construction purposes

C23.6.3 - Manufacture of ready-mixed concrete

C23.6.4 - Manufacture of mortars

C23.6.5 - Manufacture of fibre cement

C23.6.9 - Manufacture of other articles of concrete, plaster and cement

C23.7 - Cutting, shaping and finishing of stone

C23.7.0 - Cutting, shaping and finishing of stone

C23.9 - Manufacture of abrasive products and non-metallic mineral products n.e.c.

C23.9.1 - Production of abrasive products

C23.9.9 - Manufacture of other non-metallic mineral products n.e.c.

C24 - Manufacture of basic metals

C24.1 - Manufacture of basic iron and steel and of ferro-alloys

C24.1.0 - Manufacture of basic iron and steel and of ferro-alloys

C24.2 - Manufacture of tubes, pipes, hollow profiles and related fittings, of steel

C24.2.0 - Manufacture of tubes, pipes, hollow profiles and related fittings, of steel

C24.3 - Manufacture of other products of first processing of steel

C24.3.1 - Cold drawing of bars

C24.3.2 - Cold rolling of narrow strip

C24.3.3 - Cold forming or folding

C24.3.4 - Cold drawing of wire

C24.4 - Manufacture of basic precious and other non-ferrous metals

C24.4.1 - Precious metals production

C24.4.2 - Aluminium production

C24.4.3 - Lead, zinc and tin production

C24.4.4 - Copper production

C24.4.5 - Other non-ferrous metal production

C24.4.6 - Processing of nuclear fuel

C24.5 - Casting of metals

C24.5.1 - Casting of iron

C24.5.2 - Casting of steel

C24.5.3 - Casting of light metals

C24.5.4 - Casting of other non-ferrous metals

C25 - Manufacture of fabricated metal products, except machinery and equipment

C25.1 - Manufacture of structural metal products

C25.1.1 - Manufacture of metal structures and parts of structures

C25.1.2 - Manufacture of doors and windows of metal

C25.2 - Manufacture of tanks, reservoirs and containers of metal

C25.2.1 - Manufacture of central heating radiators and boilers

C25.2.9 - Manufacture of other tanks, reservoirs and containers of metal

C25.3 - Manufacture of steam generators, except central heating hot water boilers

C25.3.0 - Manufacture of steam generators, except central heating hot water boilers

C25.4 - Manufacture of weapons and ammunition

C25.4.0 - Manufacture of weapons and ammunition

C25.5 - Forging, pressing, stamping and roll-forming of metal; powder metallurgy

C25.5.0 - Forging, pressing, stamping and roll-forming of metal; powder metallurgy

C25.6 - Treatment and coating of metals; machining

C25.6.1 - Treatment and coating of metals

C25.6.2 - Machining

C25.7 - Manufacture of cutlery, tools and general hardware

C25.7.1 - Manufacture of cutlery

C25.7.2 - Manufacture of locks and hinges

C25.7.3 - Manufacture of tools

C25.9 - Manufacture of other fabricated metal products

C25.9.1 - Manufacture of steel drums and similar containers

C25.9.2 - Manufacture of light metal packaging

C25.9.3 - Manufacture of wire products, chain and springs

C25.9.4 - Manufacture of fasteners and screw machine products

C25.9.9 - Manufacture of other fabricated metal products n.e.c.

C26 - Manufacture of computer, electronic and optical products

C26.1 - Manufacture of electronic components and boards

C26.1.1 - Manufacture of electronic components

C26.1.2 - Manufacture of loaded electronic boards

C26.2 - Manufacture of computers and peripheral equipment

C26.2.0 - Manufacture of computers and peripheral equipment

C26.3 - Manufacture of communication equipment

C26.3.0 - Manufacture of communication equipment

C26.4 - Manufacture of consumer electronics

C26.4.0 - Manufacture of consumer electronics

C26.5 - Manufacture of instruments and appliances for measuring, testing and navigation; watches and clocks

C26.5.1 - Manufacture of instruments and appliances for measuring, testing and navigation

C26.5.2 - Manufacture of watches and clocks

C26.6 - Manufacture of irradiation, electromedical and electrotherapeutic equipment
C26.6.0 - Manufacture of irradiation, electromedical and electrotherapeutic equipment
C26.7 - Manufacture of optical instruments and photographic equipment
C26.7.0 - Manufacture of optical instruments and photographic equipment
C26.8 - Manufacture of magnetic and optical media
C26.8.0 - Manufacture of magnetic and optical media
C27 - Manufacture of electrical equipment
C27.1 - Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus
C27.1.1 - Manufacture of electric motors, generators and transformers
C27.1.2 - Manufacture of electricity distribution and control apparatus
C27.2 - Manufacture of batteries and accumulators
C27.2.0 - Manufacture of batteries and accumulators
C27.3 - Manufacture of wiring and wiring devices
C27.3.1 - Manufacture of fibre optic cables
C27.3.2 - Manufacture of other electronic and electric wires and cables
C27.3.3 - Manufacture of wiring devices
C27.4 - Manufacture of electric lighting equipment
C27.4.0 - Manufacture of electric lighting equipment
C27.5 - Manufacture of domestic appliances
C27.5.1 - Manufacture of electric domestic appliances
C27.5.2 - Manufacture of non-electric domestic appliances
C27.9 - Manufacture of other electrical equipment
C27.9.0 - Manufacture of other electrical equipment
C28 - Manufacture of machinery and equipment n.e.c.
C28.1 - Manufacture of general-purpose machinery
C28.1.1 - Manufacture of engines and turbines, except aircraft, vehicle and cycle engines
C28.1.2 - Manufacture of fluid power equipment
C28.1.3 - Manufacture of other pumps and compressors
C28.1.4 - Manufacture of other taps and valves
C28.1.5 - Manufacture of bearings, gears, gearing and driving elements
C28.2 - Manufacture of other general-purpose machinery
C28.2.1 - Manufacture of ovens, furnaces and furnace burners
C28.2.2 - Manufacture of lifting and handling equipment
C28.2.3 - Manufacture of office machinery and equipment (except computers and peripheral equipment)
C28.2.4 - Manufacture of power-driven hand tools

C28.2.5 - Manufacture of non-domestic cooling and ventilation equipment

C28.2.9 - Manufacture of other general-purpose machinery n.e.c.

C28.3 - Manufacture of agricultural and forestry machinery

C28.3.0 - Manufacture of agricultural and forestry machinery

C28.4 - Manufacture of metal forming machinery and machine tools

C28.4.1 - Manufacture of metal forming machinery

C28.4.9 - Manufacture of other machine tools

C28.9 - Manufacture of other special-purpose machinery

C28.9.1 - Manufacture of machinery for metallurgy

C28.9.2 - Manufacture of machinery for mining, quarrying and construction

C28.9.3 - Manufacture of machinery for food, beverage and tobacco processing

C28.9.4 - Manufacture of machinery for textile, apparel and leather production

C28.9.5 - Manufacture of machinery for paper and paperboard production

C28.9.6 - Manufacture of plastics and rubber machinery

C28.9.9 - Manufacture of other special-purpose machinery n.e.c.

C29 - Manufacture of motor vehicles, trailers and semi-trailers

C29.1 - Manufacture of motor vehicles

C29.1.0 - Manufacture of motor vehicles

C29.2 - Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers

C29.2.0 - Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers

C29.3 - Manufacture of parts and accessories for motor vehicles

C29.3.1 - Manufacture of electrical and electronic equipment for motor vehicles

C29.3.2 - Manufacture of other parts and accessories for motor vehicles

C30 - Manufacture of other transport equipment

C30.1 - Building of ships and boats

C30.1.1 - Building of ships and floating structures

C30.1.2 - Building of pleasure and sporting boats

C30.2 - Manufacture of railway locomotives and rolling stock

C30.2.0 - Manufacture of railway locomotives and rolling stock

C30.3 - Manufacture of air and spacecraft and related machinery

C30.3.0 - Manufacture of air and spacecraft and related machinery

C30.4 - Manufacture of military fighting vehicles

C30.4.0 - Manufacture of military fighting vehicles

C30.9 - Manufacture of transport equipment n.e.c.

C30.9.1 - Manufacture of motorcycles

C30.9.2 - Manufacture of bicycles and invalid carriages

C30.9.9 - Manufacture of other transport equipment n.e.c.

C31 - Manufacture of furniture

C31.0 - Manufacture of furniture

C31.0.1 - Manufacture of office and shop furniture

C31.0.2 - Manufacture of kitchen furniture

C31.0.3 - Manufacture of mattresses

C31.0.9 - Manufacture of other furniture

C32 - Other manufacturing

C32.1 - Manufacture of jewellery, bijouterie and related articles

C32.1.1 - Striking of coins

C32.1.2 - Manufacture of jewellery and related articles

C32.1.3 - Manufacture of imitation jewellery and related articles

C32.2 - Manufacture of musical instruments

C32.2.0 - Manufacture of musical instruments

C32.3 - Manufacture of sports goods

C32.3.0 - Manufacture of sports goods

C32.4 - Manufacture of games and toys

C32.4.0 - Manufacture of games and toys

C32.5 - Manufacture of medical and dental instruments and supplies

C32.5.0 - Manufacture of medical and dental instruments and supplies

C32.9 - Manufacturing n.e.c.

C32.9.1 - Manufacture of brooms and brushes

C32.9.9 - Other manufacturing n.e.c.

C33 - Repair and installation of machinery and equipment

C33.1 - Repair of fabricated metal products, machinery and equipment

C33.1.1 - Repair of fabricated metal products

C33.1.2 - Repair of machinery

C33.1.3 - Repair of electronic and optical equipment

C33.1.4 - Repair of electrical equipment

C33.1.5 - Repair and maintenance of ships and boats

C33.1.6 - Repair and maintenance of aircraft and spacecraft

C33.1.7 - Repair and maintenance of other transport equipment

C33.1.9 - Repair of other equipment

C33.2 - Installation of industrial machinery and equipment

C33.2.0 - Installation of industrial machinery and equipment

Appendix 2

N.	Company name	Sector	Offshored to (Country)	Reshored to (Country)	Reshoring Date	Reshored business function
1	Abax AS	C26.5 - Manufacture of instruments and appliances for measuring, testing and navigation; watches and clocks	Lithuania	Norway	January, 2017	Production
2	ABB	C27.1 - Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus	United States	Switzerland	August, 2016	Production
3	ADIDAS AG	C15.2 - Manufacture of footwear	China	Germany	June, 2016	Production
4	Amps Electric Bikes Ltd	C30.9 - Manufacture of transport equipment n.e.c.	China	United Kingdom	July, 2018	Production
5	ANTLER	C15.1.2 - Manufacture of luggage, handbags and the like, saddlery and harness	China	United Kingdom	January, 2014	Production
6	Arkopharma	C21.2.0 - Manufacture of pharmaceutical preparations	Italy	France	January, 2017	Production
7	Arkopharma	C21.2.0 - Manufacture of pharmaceutical preparations	Ireland	France	January, 2017	Production
8	Artsana	C32.4 - Manufacture of games and toys	China	Italy	January, 2014	Production
9	Artsana	C32.4 - Manufacture of games and toys	India	Italy	January, 2015	Production
10	Atlas Dynamics	C30.3.0 - Manufacture of air and spacecraft and related machinery	China	Latvia	October, 2017	Production
11	Azimut-Benetti Group	C30.1 - Building of ships and boats	Turkey	Italy	November, 2012	Production
12	Baby Design Group	C30.9 - Manufacture of transport equipment n.e.c.	China	Poland	January, 2017	Production
13	Bati-Réno	C22.23 - Manufacture of builders' ware of plastic	Romania	France	April, 2018	Production
14	Bee Health	C21.1.0 - Manufacture of basic pharmaceutical products	China	United Kingdom	January, 2014	Production
15	Bee Health	C21.1.0 - Manufacture of basic pharmaceutical products	India	United Kingdom	January, 2014	Production
16	Bee Health	C21.1.0 - Manufacture of basic pharmaceutical products	United States	United Kingdom	January, 2014	Production

17	BENETTON	C14.1 - Manufacture of wearing apparel, except fur apparel	Balkans	Italy	January, 2016	Production
18	Berria Bike	C30.9.2 - Manufacture of bicycles and invalid carriages	China	Spain	February, 2016	Production
19	Berria Bike	C30.9.2 - Manufacture of bicycles and invalid carriages	Taiwan	Spain	February, 2016	Production
20	BerryAlloc	C31.0.9 - Manufacture of other furniture	China	Norway	March, 2016	Production
21	Bicycle Five	C30.9.2 - Manufacture of bicycles and invalid carriages	China	Italy	May, 2017	Production
22	Billerud	C17.1 - Manufacture of pulp, paper and paperboard	Finland	Sweden	June, 2016	Production
23	BOMBOOGIE	C14.1 - Manufacture of wearing apparel, except fur apparel	China	Italy	January, 2015	Production
24	BOMBOOGIE	C14.1 - Manufacture of wearing apparel, except fur apparel	Bangladesh	Italy	January, 2015	Production
25	Boryszew	C29.3.2 - Manufacture of other parts and accessories for motor vehicles	Poland	Germany	February, 2014	Production
26	Bosch Packaging Technology	C22 - Manufacture of rubber and plastic products	United Kingdom	Germany	April, 2016	Production
27	BURBERRY	C14.1 - Manufacture of wearing apparel, except fur apparel	Japan	United Kingdom	January, 2012	Production
28	BURBERRY	C14.1 - Manufacture of wearing apparel, except fur apparel	China	United Kingdom	January, 2012	Production
29	C&C Group	C11.0.3 - Manufacture of cider and other fruit wines C11.0.1 - Distilling, rectifying and blending of spirits	United Kingdom	Ireland	June, 2016	Production
30	C&F Group	C29.3 - Manufacture of parts and accessories for motor vehicles	Germany	Ireland	December, 2017	Production
31	Cadbury	C10.8.2 - Manufacture of cocoa, chocolate and sugar confectionery	Poland	United Kingdom	April, 2017	Production
32	CALZATURIFICI O MARITAN	C15.2.0 - Manufacture of footwear	Romania	Italy	December, 2016	Production
33	CALZATURIFICI O MARITAN	C15.2.0 - Manufacture of footwear	Moldova	Italy	December, 2016	Production
34	CanP	C25.9.2 - Manufacture of light metal packaging	Slovakia	Poland	January, 2017	Production

35	Carte Noire	C10.8.3 - Processing of tea and coffee	Czech Republic	France	April, 2016	Production
36	Cartronic	C324 - Manufacture of games and toys	China	Germany	February, 2017	Production
37	Clearview Traffic Group	C30 - Manufacture of other transport equipment	Poland	United Kingdom	March, 2014	Production
38	Ciak Roncato	C14.1.9 - Manufacture of other wearing apparel and accessories	China	Italy	January, 2015	Production
39	Cobham Satcom	C26.3 - Manufacture of communication equipment	United States	United Kingdom	April, 2014	Production
40	Comital	C24 - Manufacture of basic metals	Sweden	Italy	June, 2014	Production
41	Continental Foods	C10 - Manufacture of food products	Sweden	Belgium	March, 2014	Production
42	Coyote	C26.51 - Manufacture of instruments and appliances for measuring, testing and navigation	China	France	May, 2017	Production
43	Custom	C18.1.2 - Other printing	China	Italy	June, 2017	Production
44	Cycleurope AB	C30.9.2 - Manufacture of bicycles and invalid carriages	France	Sweden	January, 2017	Production
45	Danone	C10.5 - Manufacture of dairy products	Italy	France	June, 2014	Production
46	DAVA Foods	C10.5 - Manufacture of dairy products	Sweden	Finland	September, 2016	Production
47	Debflex	C26.1 - Manufacture of electronic components and boards	China	France	December, 2017	Production
48	Deliled	C27.4.0 - Manufacture of electric lighting equipment	China	France	November, 2016	Production
49	DIADORA S.P.A.	C15.2.0 - Manufacture of footwear	China	Italy	June, 2017	Production
50	Dicarcono	C10.7 - Manufacture of bakery and farinaceous products	Netherlands	Spain	April, 2018	Production
51	DinBox Sverige AB	C25.9 - Manufacture of other fabricated metal products	China	Sweden	January, 2018	Production
52	Electrolux	C27 - Manufacture of electrical equipment	Australia	Sweden	April, 2016	Production
53	Electrostar GmbH	C27.5 - Manufacture of domestic appliances	China	Germany	January, 2016	Production
54	Esaote	C26.6 - Manufacture of irradiation, electromedical and electrotherapeutic equipment	Netherlands	Italy	February, 2015	Production

55	Ewes Stålfjäder AB	C25.9.3 - Manufacture of wire products, chain and springs	Serbia	Sweden	January, 2017	Production
56	EWII	C29.1.0 - Manufacture of motor vehicles	Poland	Denmark	May, 2017	Production
57	FALCONERI	C14 - Manufacture of wearing apparel	Romania	Italy	May, 2015	Production
58	Famoco	C26.4 - Manufacture of consumer electronics	China	France	January, 2018	Production
59	Fazer	C10.7.2 - Manufacture of rusks and biscuits; manufacture of preserved pastry goods and cakes	Poland	Finland	April, 2016	Production
60	Felix Põltsamaa	C10.5 - Manufacture of dairy products	Latvia	Estonia	September, 2016	Production
61	Fideltronik	C26.1.2 - Manufacture of loaded electronic boards	Sweden	Poland	May, 2016	Production
62	Fine Scandinavia AB	C24.2 - Manufacture of tubes, pipes, hollow profiles and related fittings, of steel	Vietnam	Sweden	January, 2018	Production
63	Fly	C31 - Manufacture of furniture	China	France	January, 2014	Production
64	FrieslandCampina	C11.0 - Manufacture of beverages	Germany	Netherlands	March, 2019	Production
65	Frog	C30.9.2 - Manufacture of bicycles and invalid carriages	China	United Kingdom	September, 2015	Production
66	Fuda-Hobart Rose	C31.0 - Manufacture of furniture	China	United Kingdom	April, 2015	Production
67	Gigaset AG	C26.3.0 - Manufacture of communication equipment	China	Germany	May, 2017	Production
68	Glunz & Jensen Holding A/S	C26.2 - Manufacture of computers and peripheral equipment	China	Slovakia	January, 2016	Production
69	GTA MODA	C14.1 - Manufacture of wearing apparel, except fur apparel	Romania	Italy	November, 2014	Production
70	Gtech	C27.5 - Manufacture of domestic appliances	China	United Kingdom	January, 2019	Production
71	Gust. Alberts GmbH & Co. KG	C25.7 - Manufacture of cutlery, tools and general hardware	China	Germany	January, 2016	Production
72	Hagens Fjedre A/S	C25.9 - Manufacture of other fabricated metal products	Poland	Denmark	January, 2015	Production
73	Huddly AB	C26.4 - Manufacture of consumer electronics	China	Norway	December, 2016	Production
74	Hunton Fiber	C16.2 - Manufacture of products of wood, cork,	Poland	Norway	April, 2017	Production

		straw and plaiting materials				
75	I. P. Huse	C28 - Manufacture of machinery and equipment n.e.c.	Czech Republic	Norway	May, 2017	Production
76	I. P. Huse	C28 - Manufacture of machinery and equipment n.e.c.	Poland	Norway	May, 2017	Production
77	I. P. Huse	C28 - Manufacture of machinery and equipment n.e.c.	Russia	Norway	May, 2017	Production
78	I. P. Huse	C28 - Manufacture of machinery and equipment n.e.c.	Ukraine	Norway	May, 2017	Production
79	ICCAB	C14.1 - Manufacture of wearing apparel, except fur apparel	China	Italy	January , 2014	Production
80	InnovaDerma	C21.1.0 - Manufacture of basic pharmaceutical products	Australia	United Kingdom	November, 2016	Production
81	InterBake	C28.9.3 - Manufacture of machinery for food, beverage and tobacco processing	Canada	United Kingdom	January, 2014	Production
82	Jabil	C26.1 - Manufacture of electronic components and boards	China	Poland	January, 2017	Production
83	Jacuzzi Europe SPA	C23.4 - Manufacture of other porcelain and ceramic products	United States	Italy	January, 2017	Production
84	Jaguar Land Rover	C29 - Manufacture of motor vehicles, trailers and semi-trailers	India	United Kingdom	January, 2015	Production
85	JALLATTE	C15.2 - Manufacture of footwear	Tunisia	France	January, 2018	Production
86	JCB	C28 - Manufacture of machinery and equipment n.e.c.	Germany	United Kingdom	April, 2014	Production
87	Jysk	C31.0 - Manufacture of furniture	China	Poland	May, 2017	Production
88	KANSAS	C14.12 - Manufacture of workwear	Sweden	Denmark	February, 2018	Production
89	Kapsys	C26.3 - Manufacture of communication equipment	China	France	November, 2016	Production
90	Kemppi Oy	C 27.9 - Manufacture of other electrical equipment	India	Finland	August, 2018	Production
91	KIPLAY	C14.1 - Manufacture of wearing apparel, C14.1 - Manufacture of wearing apparel, except fur apparel	Tunisia	France	January, 2016	Production

92	KRYS	C14 - Manufacture of wearing apparel	Thailand	France	January, 2012	Production
93	La Brava Beer	C11.0.5 - Manufacture of beer	Czech Republic	Spain	April, 2017	Production
94	LE COQ SPORTIF	C14.1 - Manufacture of wearing apparel, except fur apparel	Vietnam	France	January, 2018	Production
95	Lechpol	C26.4 - Manufacture of consumer electronics	China	Poland	January, 2017	Production
96	Lino Manfrotto + Co., S.p.A.	C26.7 - Manufacture of optical instruments and photographic equipment	China	United Kingdom	October, 2017	Production
97	Lissau A/S	C13.92 - Manufacture of made-up textile articles, except apparel	Lithuania	Denmark	August, 2017	Production
98	Lucibel	C27.4.0 - Manufacture of electric lighting equipment	China	France	May, 2017	Production
99	MANGO	C14 - Manufacture of wearing apparel	China	Spain	January, 2015	Production
100	MANGO Italia	C14 - Manufacture of wearing apparel	India	Italy	January, 2015	Production
101	Marklin	C32.4 - Manufacture of games and toys	China	Germany	January, 2014	Production
102	Martini & Rossi	C11.0.1 - Distilling, rectifying and blending of spirits	Spain	Italy	February, 2016	Production
103	Mauboussin	C32.1.2 - Manufacture of jewellery and related articles	India	France	January, 2013	Production
104	McLaren Technology Group	C29.1.0 - Manufacture of motor vehicles	Austria	United Kingdom	January, 2017	Production
105	Mepisurfaces	C26.5.2 - Manufacture of watches and clocks	France	Portugal	October, 2016	Production
106	Mersen	C24.4.5 - Other non-ferrous metal production	Italy	France	May, 2014	Production
107	Metal Product	C28.4.1 - Manufacture of metal forming machinery	Germany	Croatia	March, 2017	Production
108	Metal Product	C28.4.1 - Manufacture of metal forming machinery	Austria	Croatia	March, 2017	Production
109	Michelin	C22.1.1 - Manufacture of rubber tyres and tubes; retreading and rebuilding of rubber tyres	Germany	France	July, 2016	Production
110	Monbento	C22.21 - Manufacture of plastic plates, sheets, tubes and profiles	China	France	January, 2017	Production
111	Multicut	C28.2.9 - Manufacture of other general-purpose machinery n.e.c.	Lithuania	Denmark	January, 2016	Production
112	Natuzzi	C31 - Manufacture of furniture	Romania	Italy	January, 2017	Production

113	Natuzzi	C31 - Manufacture of furniture	China	Italy	January, 2017	Production
114	NBI Bearings Europe	C28.1.5 - Manufacture of bearings, gears, gearing and driving elements	China	Spain	January, 2015	Production
115	Neuman	C25 - Manufacture of fabricated metal products, except machinery and equipment	China	Austria	May, 2017	Production
116	Nicos	C31.0.9 - Manufacture of other furniture	Bulgaria	Italy	April, 2016	Production
117	Northern Flags Ltd	C18.1 - Printing and service activities related to printing	Poland	United Kingdom	January, 2016	Production
118	Orbea	C30.9.2 - Manufacture of bicycles and invalid carriages	China	Portugal	April, 2015	Production
119	Orbea	C30.9.2 - Manufacture of bicycles and invalid carriages	China	Spain	April, 2015	Production
120	Orientis Gourmet	C10.8 - Manufacture of other food products	Morocco	France	January, 2014	Production
121	Orkla Foods Sweden	C10.8 - Manufacture of other food products	Denmark	Sweden	September, 2017	Production
122	Oxymat	C28.1.3 - Manufacture of other pumps and compressors	Slovakia	Sweden	September, 2015	Production
123	OVS S.P.A.	C14.1 - Manufacture of wearing apparel, except fur apparel		Italy	January, 2016	Production
124	Palma Group, a.s.	C10.4.1 - Manufacture of oils and fats	Czech Republic	Slovakia	January, 2018	Production
125	Patrona Luggage	C14.1.9 - Manufacture of other wearing apparel and accessories	China	United Kingdom	January, 2014	Production
126	PAUL SMITH	C14.1.9 - Manufacture of other wearing apparel and accessories C14.1 - Manufacture of wearing apparel, except fur apparel		United Kingdom	January, 2012	Production
127	Peugeot Scooters	C29.1.0 - Manufacture of motor vehicles	China	France	April, 2016	Production
128	Peta	C25.7 - Manufacture of cutlery, tools and general hardware	China	United Kingdom	January, 2016	Production
129	Plasto	C22.2.9 - Manufacture of other plastic products	China	Norway	May, 2017	Production
130	Phineas	C22 - Manufacture of rubber and plastic products	China	United Kingdom	April, 2014	Production
131	PIQUADRO S.P.A.	C15.1 - Tanning and dressing of leather;	China	Italy	January, 2014	Production

		manufacture of luggage, handbags, saddlery and harness; dressing and dyeing of fur				
132	Polarica	C10.3 - Processing and preserving of fruit and vegetables	Poland	Sweden	March, 2017	Production
133	Pole Bicycle Company	C30.9 - Manufacture of transport equipment n.e.c.	Taiwan	Finland	November, 2017	Production
134	PRADA SPA	C14.1 - Manufacture of wearing apparel, except fur apparel	China	Italy	January, 2014	Production
135	Premier Is - Mejerigaarden A/S	C10.52 - Manufacture of ice cream	Poland	Denmark	January, 2018	Production
136	Premier Is - Mejerigaarden A/S	C10.52 - Manufacture of ice cream	Slovenia	Denmark	January, 2018	Production
137	Premier Is - Mejerigaarden A/S	C10.52 - Manufacture of ice cream	Sweden	Denmark	January, 2018	Production
138	Premier Is - Mejerigaarden A/S	C10.52 - Manufacture of ice cream	Ireland	Denmark	January, 2018	Production
139	Premier Is - Mejerigaarden A/S	C10.52 - Manufacture of ice cream	Germany	Denmark	January, 2018	Production
140	Profialis	C22 - Manufacture of rubber and plastic products	Belgium	France	March, 2015	Production
141	QTS	C24 - Manufacture of basic metals	China	United Kingdom	August, 2015	Production
142	RAPANUI	C14.1 - Manufacture of wearing apparel, except fur apparel	India	United Kingdom	January, 2014	Production
143	RBI Interior	C16.2.1 - Manufacture of veneer sheets and wood-based panels	Sweden	Norway	January, 2015	Production
144	RBI Interior	C16.2.1 - Manufacture of veneer sheets and wood-based panels	Poland	Norway	January, 2015	Production
145	Reitzel France	C10.3 - Processing and preserving of fruit and vegetables	India	France	January, 2017	Production
146	Renault	C29 - Manufacture of motor vehicles, trailers and semi-trailers	United Kingdom	France	May, 2014	Production
147	Renault	C29 - Manufacture of motor vehicles, trailers and semi-trailers	Spain	France	May, 2014	Production

148	Reno de Medici SPA	C17.2 - Manufacture of articles of paper and paperboard	Germany	Italy	January, 2017	Production
149	Rīgas Dzirnāvieks AS	C10.3 - Processing and preserving of fruit and vegetables	Estonia	Latvia	January, 2019	Production
150	Rossi	C28 - Manufacture of machinery and equipment n.e.c.	China	Italy	May, 2014	Production
151	ROY LOWE & SONS	C14.3 - Manufacture of knitted and crocheted apparel	China	United Kingdom	January, 2013	Production
152	ROY LOWE & SONS	C14.3 - Manufacture of knitted and crocheted apparel	India	United Kingdom	January, 2013	Production
153	ROY LOWE & SONS	C14.3 - Manufacture of knitted and crocheted apparel	Turkey	United Kingdom	January, 2013	Production
154	SAFILO	C14.1.9 - Manufacture of other wearing apparel and accessories	China	Italy	January, 2016	Production
155	Saint-Gobain PAM	C24.2 - Manufacture of tubes, pipes, hollow profiles and related fittings, of steel	Germany	France	January, 2019	Production
156	Sandvik	C25 - Manufacture of fabricated metal products, except machinery and equipment	China	Finland	February, 2016	Production
157	Sartorius Biohit Liquid Handling	C26.51 - Manufacture of instruments and appliances for measuring, testing and navigation	China	Finland	April, 2018	Production
158	Schaeffler Technologies AG & Co. KG	C28.1 - Manufacture of general-purpose machinery	United Kingdom	Germany	January, 2018	Production
159	SeaBird Designs	C30.1.2 - Building of pleasure and sporting boats	China	Norway	January, 2017	Production
160	SealSkinz	C32.3 - Manufacture of sports goods	Bulgaria	United Kingdom	July, 2018	Production
161	Sennheiser electronic GmbH & Co.	C26.4 - Manufacture of consumer electronics	China	Germany	June, 2018	Production
162	Siemens	C27.9 - Manufacture of other electrical equipment	Denmark	Germany	June, 2017	Production
163	Sifrap Requalification	C28.2 - Manufacture of other general-purpose machinery	China	France	January, 2016	Production
164	Siteco Beleuchtungstechnik GmbH	C27.4.0 - Manufacture of electric lighting equipment	Slovakia	Germany	January, 2018	Production

165	Sleipner Motor	C27.1 - Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus	China	Norway	April, 2017	Production
166	Skako A/S	C29.1 - Manufacture of motor vehicles	France	Denmark	October, 2017	Production
167	Smartphoto	C18.1 - Printing and service activities related to printing	Netherlands	Belgium	June, 2016	Production
168	Solservs Solutions & Services Europe	C28.2 - Manufacture of other general-purpose machinery	China	Sweden	January, 2018	Production
169	Steelco Spa	C27.51 Manufacture of electric domestic appliances	Germany	Italy	April, 2018	Production
170	Steelco Spa	C27.51 Manufacture of electric domestic appliances	Austria	Italy	April, 2018	Production
171	Stille AB	C32.5 - Manufacture of medical and dental instruments and supplies	United States	Sweden	January, 2017	Production
172	Stouby Furniture A/S	C31.0 - Manufacture of furniture	Lithuania	Denmark	January, 2017	Production
173	Superstar Components Ltd	C25.9 - Manufacture of other fabricated metal products	Taiwan	United Kingdom	January, 2016	Production
174	Symington's	C10.8.5 - Manufacture of prepared meals and dishes	China	United Kingdom	April, 2014	Production
175	SWEP	C25.9.9 - Manufacture of other fabricated metal products n.e.c.	Switzerland	Sweden	November, 2016	Production
176	TBA	C13.30 - Finishing of textiles	Netherlands	United Kingdom	September, 2016	Production
177	TD Tom Davies Ltd	C32.5 - Manufacture of medical and dental instruments and supplies	China	United Kingdom	January, 2017	Production
178	Teknotherm	C28.2.5 - Manufacture of non-domestic cooling and ventilation equipment	China	Norway	June, 2016	Production
179	TES	C27.5 - Manufacture of domestic appliances	Canada	Sweden	May, 2017	Production
180	Tikkurila	C20.30 - Manufacture of paints, varnishes and similar coatings	Denmark	Finland	January, 2019	Production
181	Track-Tec	C30 - Manufacture of other transport equipment	Serbia	Poland	January, 2018	Production
182	Turolla	C28.1.3 - Manufacture of other pumps and compressors	Slovakia	Italy	January, 2015	Production

183	Van Merksteijn International B.V.	C259 - Manufacture of other fabricated metal products	Turkey	Netherlands	December, 2017	Production
184	Vauxhall	C29.1.0 - Manufacture of motor vehicles	Germany	United Kingdom	July, 2012	Production
185	Vent-Axia	C28.2 - Manufacture of other general-purpose machinery	China	United Kingdom	January, 2011	Production
186	Vimec Srl	C28.22 - Manufacture of lifting and handling equipment	China	Italy	March, 2017	Production
187	Vivechrom	C20.3.0 - Manufacture of paints, varnishes and similar coatings, printing ink and mastics	Turkey	Greece	April, 2017	Production
188	Volvo	C29.10 - Manufacture of motor vehicles	United States	Sweden	July, 2016	Production
189	Volvo	C29.10 - Manufacture of motor vehicles	China	Sweden	July, 2018	Production
190	SWEP	C25.9.9 - Manufacture of other fabricated metal products n.e.c.	Switzerland	Sweden	November, 2016	Production
191	Ymer Technology AB	C28.2.5 - Manufacture of non-domestic cooling and ventilation equipment	China	Sweden	January, 2017	Production
192	Ypsomed Holding AG	C26.5 - Manufacture of instruments and appliances for measuring, testing navigation; watches and clocks	Mexico	Switzerland	April, 2018	Production
193	Welltec	C35.3.3 - Oil and Gas Field Machinery and Equipment	Poland	Denmark	April, 2017	Production
194	Wendre	C13 - Manufacture of textiles	Sweden	Estonia	June, 2017	Production
195	Wendre	C13 - Manufacture of textiles	Finland	Estonia	June, 2017	Production
196	Zodiac Nautic	C30.1.2 - Building of pleasure and sporting boats	China	France	February, 2016	Production

Table 14: Database of analysed companies

Source: Personal elaboration of the above-explained concepts (Data Source: European Reshoring Monitor database)

References

- Ancarani, A., Di Mauro, C., Fratocchi, L. and Orzes, G. (2015), *Prior to reshoring: a duration analysis of foreign manufacturing ventures*, International Journal of Production Economics, Vol. 169, November, pp. 141-155.
- Arlbjørn, J. S., & Mikkelsen, O. S. (2014). *Backshoring manufacturing: Notes on an important but under-researched theme*. Journal of Purchasing and Supply Management, 20(1), 60-62.
- Bals, L., Kirchoff, J. F., & Foerstl, K. (2016). *Exploring the reshoring and insourcing decision making process: toward an agenda for future research*. Operations Management Research, 9(3-4), 102-116.
- Baraldi, E., Ciabuschi, F., Lindahl, O., & Fratocchi, L. (2018). *A network perspective on the reshoring process: The relevance of the home-and the host-country contexts*. Industrial Marketing Management, 70, 156-166
- Barbieri, P., Ciabuschi, F., Fratocchi, L., & Vignoli, M. (2017). *Manufacturing reshoring explained: An interpretative framework of ten years of research*. In Reshoring of Manufacturing (pp. 3-37). Springer, Cham.
- Barbieri, P., Ciabuschi, F., Fratocchi, L., & Vignoli, M. (2018). *What do we know about manufacturing reshoring?*. Journal of Global Operations and Strategic Sourcing, 11(1), 79-122
- Barbieri, P., & Fratocchi, L. (2017). *Le peculiarità del reshoring manifatturiero in Italia: un'analisi basata su dati secondari*. L'industria, 38(3), 317-340.
- Barney, J.B. (2001), *Is the Resource-Based "View" a Useful Perspective for Strategic Management Research?*, Academy of Management Review. 26 (1): 101. doi:10.5465/AMR.2001.4011938
- Batra, R., & Beladi, H. (2010). *A Simple Two-Sector Model of Outsourcing*. Review of Development Economics, 14(1), 64-73.
- Bellego, C. (2014). *Reshoring: a multifaceted decision involving much more than just labour costs*. Les, 4, 1-4.
- Benstead, A.V., Stevenson, M. and Hendry, L.C. (2017), *Why and how do firms reshore? A contingency-based conceptual framework*, Operations Management Research, Vol. 10 Nos 3/4, pp. 85-103.

- Bontempi, M. E. and Prodi, G. (2009) *Entry strategies into China: the choice between joint ventures and wholly foreign-owned enterprises: an application to the Italian manufacturing sector*, International Review of Economics & Finance, Vol. 18 No. 1, pp.11 - 19.
- Booth, T. (2013), *Special report: outsourcing and offshoring: here, there and anywhere*, The Economist, January 17th 2013
- Boston Consulting Group (2011), *Made In America Again, Why Manufacturing Will Return to the U.S.*
- Bozarth, C., Handfield, R. and Das, A. (1998), *Stages of global sourcing strategy evolution: an exploratory study*, Journal of Operations Management, Vol. 16 Nos 2-3, pp. 241-255
- Brum A., Castelli C., Karaosman H. (2017), *A focused supply chain strategy for luxury fashion management*, Journal of Fashion Marketing and Management: An International Journal, Vol. 21 Issue: 4, pp.544-563
- Buckley P.J. (2004), *Government policy responses to strategic rent-seeking transnational firms*, Transnational Corporations, vol.5, n. 2, pp. 1-17.
- Buckley P.J. (2009), *The impact of the global factory on economic development*, Journal of World Business, vol.44, pp. 131-43.
- Buckley P.J., Ghauri P.N. (2004), *Globalisation, economic geography and the strategy of multinational enterprises*, Journal of International Business Studies, vol.35, n. 2, pp. 81-98.
- Buckley, Peter J. and Mark C. Casson (1976) *The Future of the Multinational Enterprise*, London: Macmillan
- Canham, S., & Hamilton, R. T. (2013), *SME internationalisation: Offshoring, “backshoring”, or staying at home in New Zealand*, Strategic Outsourcing: An International Journal, 6(3), 277–291.
- Carmel E., Agarwal R. (2002), *The maturation of offshore sourcing of information technology work*, MIS Quarterly Executive, vol. 1, n. 2, pp. 65-77
- Casson M. (2013), *Economic analysis of international supply chains: An internalization perspective*, Journal of Supply chain Management, vol.49, n. 2, pp. 8-13.

- Casson M., Wadesonn, (2012), *The economic theory of international business: A supply chain perspective*, *Multinational Business Review*, vol.20, n. 2, pp.114-134.
- Casson M., Wadeson N. (2013), *The economic theory of international supply chains: a systems view*. *International Journal of the Economics of Business* 20(2):163–186
- Chu, A. C., Cozzi, G., & Furukawa, Y. (2013). *A Simple Theory of Offshoring and Reshoring*.
- Ciabuschi F., Lindahl O., Barbieri P., Fratocchi L., (2019) *Manufacturing reshoring: A strategy to manage risk and commitment in the logic of the internationalization process model*, *European Business Review*, Vol. 31 Issue: 1, pp.139-159, <https://doi.org/10.1108/EBR-02-2018-0046>
- Contractor, F.J., Kumar, V., Kundu, S.K., Pedersen, T. (2010), *Reconceptualizing the firm in a world of outsourcing and offshoring: the organizational and geographical relocation of high-value company functions*, *Journal of Management Studies* 47 (8), 1417–1433.
- De Backer, K. et al. (2016), “*Reshoring: Myth or Reality?*”, OECD Science, Technology and Industry Policy Papers, No. 27, OECD Publishing, Paris
- De Benedictis L., Helg R. (2002), *Globalizzazione*, *Rivista di Politica economica*
- Delaney M., Chen W., Mann L.D., Cheng M., Poponak N., Hallam C. (2017), *Made in the USA. . . or China?*, Goldman Sachs Equity Research Report, Goldman Sachs, New York
- Dholakia N., Kompella R.K., Hales D. (2012), *The dynamics of inshoring*, Paper presented at the Knowledge Globalization Conference, Pune, India, vol. 6, n. 1, pp. 88-95
- Di Mauro C., Fratocchi L., Orzes G., Sartor M. (2018), *Offshoring and backshoring: A multiple case study analysis*, *Journal of Purchasing and Supply Management* 24 pp. 108–134
- Duening T.N., Click R.L. (2005), *Essentials of business process outsourcing*, John Wiley & Sons, New Jersey
- Dunning JH (1980), *Toward an eclectic theory of international production*. *Thunderbird, The International Business Review*. *The International Executive*, 22, 3, pages 1–3, Autumn (Fall) 1980

- Dunning, J.H. (1998), *Location and the multinational enterprise: a neglected factor?*, Journal of International Business Studies 29 (1), 45–66.
- Dunning JH (2001), *The eclectic (OLI) paradigm of international production: past, present and future*, Int J Econ Bus 8(2):173–190
- E. Forte, D. Miotti (2015), *Politiche di offshoring e reshoring nelle strategie di sviluppo e crescita del Mezzogiorno*, Rivista economica del Mezzogiorno (ISSN 1120-9534) Fascicolo 3-4, settembre-dicembre
- Ellram, Lisa M. (2013), *Offshoring, reshoring and the manufacturing location decision*, Journal of Supply Chain Management
- Ellram Lisa M., W.L., Petersen K.J. (2013), *Offshoring and reshoring: an update on the manufacturing location decision*, Journal of Supply Chain Management,
- Ellram, L. M., Tate, W. L., & Feitzinger, E. (2013), *Factor market rivalry: An application to logistics*, Journal of Supply Chain Management, 49(1), 29-46
- Ettlie, J.E. and Sethuraman, K. (2002), *Locus of supply and global manufacturing*, International Journal of Operations & Production Management, Vol. 22 No. 3, pp. 349-370
- Eurofound (2019), *The future of manufacturing in Europe*, Publications Office of the European Union, Luxembourg
- European Parliamentary Research Service (2014), *Reshoring of EU manufacturing*, March 21.
- Ferdows K. (1997), *Making the most of foreign factories*, Harvard Business Review
- Ferrucci, L., & Picciotti, A. (2017). *Antecedents, Modes and Effects of Back-Reshoring Strategies: The Experience of Italian Enterprises*. Journal of Management Cases, 4
- Ferrucci, L., & Picciotti, A. (2017). *I distretti industriali italiani tra strategie di offshoring e di back-reshoring*. Piccola Impresa/Small Business, (1)
- Fine C. (2013), *Intelli-sourcing to replace offshoring as supply chain transparency increases*. Journal of Supply Chain Management

- Forte E., Miotti D. (2015), *Politiche di offshoring e reshoring nelle strategie di sviluppo e crescita del Mezzogiorno*, Rivista economica del Mezzogiorno, Il Mulino, Fascicolo 3-4
- Fratocchi L., Albertoni F., Elia S., Piscitello L., *Returning from Offshore: What Do We Know*, AIB Insights, Vol. 15, No. 4
- Fratocchi, L., Di Mauro, C., Barbieri, P., Nassimbeni, G. and Zanoni A. (2014), *When manufacturing moves back: concepts and questions*, Journal of Purchasing and Supply Management, Vol.20, No.1, pp.54-59
- Fratocchi L., Ancarani A., Barbieri P., Di Mauro C., Nassimbeni G., Sartor M., Vignoli M., Zanoni A. (2016), *Motivations of manufacturing reshoring: an interpretative framework*, International Journal of Physical Distribution & Logistics Management, Vol. 46 Issue: 2, pp.98-127
- Frear, C.R., Metcalf, L.E. and Alguire, M.S. (1992), *Offshore sourcing: its nature and scope*, International Journal of Purchasing and Materials Management, Vol. 28 No. 3, pp. 2-11
- Gereffi G., Korzeniewicz M. (1994), *Commodity chains and global capitalism*, Greenwood Publishing Group
- Grappi, S., Romani, S., Bagozzi, R.P. (2015). *Consumer stakeholder responses to reshoring strategies*. Journal of the Academy of Marketing Science, 43(4): 453-471
- Gray, J. V., Esenduran, G., Rungtusanatham, M. J., & Skowronski, K. (2017). *Why in the world did they reshore? Examining small to medium-sized manufacturer decisions*. Journal of Operations Management, 49, 37-51
- Gray, J., Skowronski, K., Esenduran, G. and Rungtusanatham, M. (2013), *The reshoring phenomenon: what supply chain academics ought to know and should do*, Journal of Supply Chain Management, Vol. 49 No. 2, pp. 27-33
- Grossman, G. M., & Rossi-Hansberg, E. (2006). *The rise of offshoring: it's not wine for cloth anymore*. The new economic geography: effects and policy implications, 59-102
- Gylling M, Heikkilä J, Jussila K, Saarinen M (2015) *Making decisions on offshore outsourcing and backshoring: A case study in the bicycle industry*, Internat. J. Production Econom.162(April):92–100
- Handfield, R. B., & Nichols, E. L. (2002), *Supply chain redesign: Transforming supply chains into*

integrated value systems, FT Press

Helpman, E., Melitz, M. J., & Yeaple, S. R. (2004), *Export versus FDI with heterogeneous firms*, *American economic review*, 94(1), 300-316.

Hutzel, T. and Lippert, D. (2014), *Bringing jobs back to the USA*. Boca Raton: CRC Press

International Labour Organization (2013), *Global Wage Report 2012/13. Wages and equitable growth*, Geneva.

Jahns C.E., Hartmann E., Bals L. (2006) *Offshoring: dimensions and diffusion of a new business concept*, *Journal of Purchasing and Supply Management* 12(4):218– 231

Jensen, P.D.Ø. and Pedersen, T. (2011), *The economic geography of offshoring: the fit between activities and local context*, *Journal of Management Studies*, Vol. 48 No. 2, pp. 352-372

Johansson M., Olhager J., Heikkilä J., Stentoft J. (2018), *Offshoring versus backshoring: Empirically derived bundles of relocation drivers, and their relationship with benefits*, *Journal of Purchasing and Supply Management*

Joubioux, C., & Vanpoucke, E. (2016). *Towards right-shoring: a framework for off-and re-shoring decision making*. *Operations Management Research*, 9(3-4), 117-132

Jungnickel R. (1990), *Technologien und Produktionsverlagerungen*, Verlag Weltarchiv, Hamburg

Kakabadse, A. and Kakabadse, N. (2002), *Trends in Outsourcing: Contrasting USA and Europe*, *European Management Journal*, 20, 189-198. [http://dx.doi.org/10.1016/S0263-2373\(02\)00029-4](http://dx.doi.org/10.1016/S0263-2373(02)00029-4)

Keynes J. M. (1919), *The Economic Consequences of the Peace*

Kinkel, S. (2012). *Trends in production relocation and backshoring activities: changing patterns in the course of the global economic crisis*. *International Journal of Operations & Production Management*, 32(6), 696-720

Kinkel S., Maloca S. (2009), *Drivers and antecedents of manufacturing off-shoring and backshoring - A German perspective*, *Journal of Purchasing & Supply Management*, vol. 15, n. 3, pp. 154-165

Kinkel S., Zanker C. (2013), *New patterns of German production relocation and back shoring activities after the global economic crisis?*, Paper presented at the European Operations Management Association (EurOMA), Dublin, Ireland, 7-12 June

Krugman P., Obstfeld M., Melitz M. (2016), *International Economics*, Pearson, New York, 10th edition

Kumar et al. (2009), *Risk mitigation in offshoring of business operations*, Journal of Manufacturing Technology Management, pp. 442–459

Laudicina, P., Gott, J. and Peterson, E. (2014), *A Wealth of Choices: From Anywhere on Earth to No Location at All*, AT Kearney, available at: www.atkearney.com/documents/10192/5082922/A+Wealth+of+Choices.pdf/61c80111-41b2-4411-ad1e-db4a3d6d5f0d

Levy, Frank and Richard Murnane, (2004), *The New Division of Labor*, Princeton, NJ:Princeton University Press

Lewin, A.Y., Massini, S. and Peeters, C. (2009), *Why are companies offshoring innovation? the emerging global race for talent*, Journal of International Business Studies, Vol. 40 No. 6, pp. 901-925

Li Chen, Bin Hu (2017), *Is Reshoring Better Than Offshoring? The Effect of Offshore Supply Dependence*, Manufacturing &Service Operations Management 19(2):166-184. <https://doi.org/10.1287/msom.2016.0604>

Lonsdale, C. and Cox, A. (2000), *The Historical Development of Outsourcing: The Latest Fad?*, Industrial Management & Data Systems, 100, 444-450. <https://doi.org/10.1108/02635570010358384>

Mac Cormac A. D., Lawrence J. N., Rosenfield D. B. (1994) *The new dynamics of global manufacturing site location*. Sloan management Review 35(4):69

Maddison A. (2001), *The World Economy: A Millennial Perspective*, World Bank

Margulescu S, Margulescu E (2014), *Reshoring in manufacturing and services*, Global Econ. Observer

Martínez-Mora, C. and Merino, F. (2014), *Offshoring in the Spanish footwear industry: A return journey?*, Journal of Purchasing and Supply Management, Vol. 20 No. 4, pp.225 -237

- Mellow C. (2017), *RESHORING, The Reshoring Is Real-The Jobs Are Not*, Global Finance Magazine, Pg. 132 Vol. 31 No. 9
- Mol M. (2007), *Outsourcing: design, process, performance*, Cambridge University Press, Cambridge
- Mol, M.J., Pauwels, P., Matthyssens, P., Quintens, L., (2004), *A technological contingency perspective on the depth and scope of international outsourcing*, Journal of International Management 10 (2), 287–305
- Monczka R.M., Carter J.R., Markham W.J., Blascovich J., Slaughter T. (2005), *Outsourcing strategically for sustainable competitive advantage*, Center for Advanced Purchasing Studies, Tempe, Arizona
- Morris A. Cohen, Shiliang Cui, Ricardo Ernst, Arnd Huchzermeier, Panos Kouvelis, HauL. Lee, Hirofumi Matsuo, Marc Steuber, Andy A. Tsay (2018), *OM Forum—Benchmarking Global Production Sourcing Decisions: Where and Why Firms Offshore and Reshore*, Manufacturing & Service Operations Management
- Narasimhan R., Kim S.W., Tan K.C., (2008), *An empirical investigation of supply chain strategy typologies and relationships to performance*, Int J Prod Res, p.5234
- Nassimbeni, G., Sartor, M. and Orzes, G. (2014), *Countertrade: compensatory requests to sell abroad*, Journal for Global Business Advancement, Vol. 7 No. 1, pp. 69-87
- Neary P. (2009), *Foreign direct investment: The OLI framework*, University of Oxford, in K.A. Reinert, R.S. Rajan, A.J. Glass and L.S. Davis (eds.): *The Princeton Encyclopedia of the World Economy*, Volume I, Princeton: Princeton University Press, 472-477
- Nujen B.B., Halse L.L., Damm R., Gammelsæter H. (2018), *Managing reversed (global) outsourcing – the role of knowledge, technology and time*, Journal of Manufacturing Technology Management, Vol. 29 Issue: 4, pp.676-698
- O'Marah, K., Lee H. L. (2013), *Manufacturing Footprints: Getting to plant X*, SCM World, London
- Quinn, J. B., & Hilmer, F. G. (1994). Strategic outsourcing. *MIT Sloan Management Review*, 35(4), 43
- Ricciardi A., Pastore P., Russo A., Tommaso S. (2015), *STRATEGIE DI BACK-RESHORING IN ITALIA: VANTAGGI COMPETITIVI PER LE A-ZIENDE, OPPORTUNITA' DI SVILUPPO PER IL PAESE*, IXXXVI CONFERENZA ITALIANA DI SCIENZE REGIONALI

- Robinson P. K., Hsieh L. (2016), *Reshoring: a strategic renewal of luxury clothing supply chains*, Springer
- Roza, M., Van den Bosch, F.A.J., Volberda, H.W. (2011), *Offshoring strategy: motives, functions, locations, and governance modes of small, medium-sized and large firms*. *International Business Review* 20 (3), 314–323
- Schmidt, A.S.T., Touray, E. & Hansen, Z.N.L. (2017), *A framework for international location decisions for manufacturing firms*, *Production Engineering Research and Development*, <https://doi.org/10.1007/s11740-017-0770-3>
- Schmeisser B. (2012), *Offshoring of value activities: a critical literature review and conceptual framework*, Paper presented at the 38th Annual Conference of the European International Business Academy
- Schmeisser, B. (2013). *A systematic review of literature on offshoring of value chain activities*. *Journal of International Management*, 19(4), 390-406
- Schnierderjans M.J., Schnierderjans A.M., Schnierderjans D. (2005), *Outsourcing and insourcing in an international context*. M.E. Sharpe
- Shi, Y. and Gregory, M. (1998), *International manufacturing networks – to develop global competitive capabilities*, *Journal of Operations Management*, Vol. 16 Nos 2-3, pp. 195-214
- Shih, W. 2013, *The resurgence of manufacturing in America*, *Inside Supply Management*: 30-33
- Skipper W. (2006), *Services off-shoring: An overview*, *Anthropology of Work Review*, vol. 27, n. 2, pp. 9-17
- Sirkin H, Zinser M, Hohner D (2011) *Made in America. Again*, Boston Consulting Group
- Sirkin, H., Zinser, M., Hohner, D. and Rose, J. (2012), *US manufacturing nears the tipping point: which industries? Why, and how much?*, BCG Perspectives, available at: www.bcgperspectives.com/content/articles/manufacturing_supply_chain_management_us_manufacturing_nears_the_tipping_point/
- Smith M.A., Mitra, S., Narasimahan S. (1996), *Offshore outsourcing of software development and maintenance: A framework for issues*, *Information & Management*, vol. 31, n. 3, pp. 165-175

- Stentoft, J., Mikkelsen O.S., Johnsen T., (2015) *Going Local: A Trend Towards Insourcing of Production?*, Supply Chain Forum: An International Journal 16 (1): 2–13
- Stentoft, J., Mikkelsen, O. S., & Jensen, J. K. (2016, October). *Offshoring and backshoring manufacturing from a supply chain innovation perspective*. In Supply Chain Forum: An International Journal (Vol. 17, No. 4, pp. 190-204). Taylor & Francis
- Stern M., (2015), *Homeward bound: Why companies are 're-shoring' back to the UK*. Financial Director. Retrieved on March 21, 2015, from: [http://www. f inancialdirector.co.uk/financial-director/news/2399750/homeward-bound-why-companies-are-re-shoring-backto-the-uk](http://www.financialdirector.co.uk/financial-director/news/2399750/homeward-bound-why-companies-are-re-shoring-backto-the-uk)
- Suzanne de Trevillea S., Ketokivib M., Singhal V. (2017), *Competitive manufacturing in a high-cost environment: Introduction to the special issue*, Journal of Operations Management
- Tate W.L. (2014), *Offshoring and reshoring: U.S. insights and research challenges*. J Purch Supply Manag 20:66–68
- Tate, W. L., & Bals, L. (2017). *Outsourcing/offshoring insights: going beyond reshoring to rightshoring*. International Journal of Physical Distribution & Logistics Management, 47(2/3), 106-113
- Tate, W. L., Ellram, L. M., Schoenherr, T., & Petersen, K. J. (2014). *Global competitive conditions driving the manufacturing location decision*. Business Horizons, 57(3), 381-390
- Tate, W.L., Petersen, K.J., Ellram, L.M. and Schoenherr, T. (2012), *Offshoring strategy trends of American corporations*, CSCMP Hot Topics, pp. 1-50
- Tate, W. L., Ellram, L. M., Bals, L., & Hartmann, E. (2009). *Offshore outsourcing of services: An evolutionary perspective*. International Journal of Production Economics, 120(2), 512-524
- The Manufacturing Institute and Deloitte (2015), *The skills gap in U.S. manufacturing 2015 and beyond*
- Vecchi A. (2017). *Reshoring of Manufacturing*. Springer
- Wan, L., Orzes, G., Sartor, M., Di Mauro, C., & Nassimbeni, G. (2018). *Entry modes in reshoring strategies: An empirical analysis*. Journal of Purchasing and Supply Management

White W., Borchers A. (2016), *Motivation Behind Reshoring Decisions in Manufacturing*, OPERATIONS AND SUPPLY CHAIN MANAGEMENT Vol. 9, No. 3, pp. 205 – 209

Wiesmann B., Snoei J.R., Hilletoft P., Eriksson D., (2017) *Drivers and barriers to reshoring: a literature review on offshoring in reverse*, European Business Review, Vol. 29 Issue: 1, pp.15-42, 2016

Williamson O.E. (Oct., 1979), *Transaction-Cost Economics: The Governance of Contractual Relations*, The Journal of Law and Economics 22, no. 2, pp. 233-261, <https://doi.org/10.1086/466942>

World Trade Organization. (1998). *Annual Report*, Geneva: World Trade Organization, p. 37

Yang, D. T., Chen, V. W. and Monarch, R. (2010) *Rising Wages: Has China Lost Its Global Labor Advantage?*, Pacific Economic Review, Vol. 15 No. 4, pp.482 - 504

Zorzini, M., Stevenson, M. and Hendry, L. (2014), *Coordinating offshored operations in emerging economies: a contingency-based study*, International Journal of Production Economics, Vol. 153, July, pp. 323-339

Web Bibliography

2017 A.T. Kearney Global Services Location Index (2017), <https://www.atkearney.com/digital-transformation/gsli>

Abecassis-Moedas C., Moatti V. (2015), *Location decisions in the European fashion industry: behind the mirror*, XXIV Conférence Internationale de Management Stratégique 2015, <https://www.strategie-aims.com/events/conferences/25-xxiveme-conference-de-l-aims/communications/3585-location-decisions-in-the-european-fashion-industry-behind-the-mirror/download>

Andersson J., Berg A., Hedrich S., Ibanez P., Janmark J., Magnus K. (2018), *Is apparel manufacturing coming home?*, McKinsey Apparel, Fashion & Luxury Group, October 2018, https://www.mckinsey.com/~media/mckinsey/industries/retail/our%20insights/is%20apparel%20manufacturing%20coming%20home/is-apparel-manufacturing-coming-home_vf.ashx

Camera dei deputati, XV legislatura (April 28th 2006 – April 28th 2008), *Made in Italy – lotta alla contraffazione*, http://legxv.camera.it/cartellecomuni/leg14/RapportoAttivitaCommissioni/testi/10/10_cap14_sch01.htm

Cotton Incorporated (2014), *Cotton incorporated: consumer perspectives on 'green' apparel*, available at: www.cottoninc.com/corporate/MarketData/SupplyChainInsights/consumerperspectives-on-green-apparel/

Fontana R., Girod S. J. G., Králik M. (2019), *How Luxury Brands Can Beat Counterfeiters*, Harvard Business Review, May 24, 2019 <https://hbr.org/2019/05/how-luxury-brands-can-beat-counterfeiters>

Fratocchi L. (2014), *Il Back-reshoring come opportunità per il Sistema Italia. Il contributo delle aziende ANIE* <http://anie.it/il-back-reshoring-come-opportunita-per-il-sistema-italia-il-contributo-delle-aziende-anie/?contesto-articolo=/servizi/pubblicazioni-tecniche-e-studi/studi-e-ricerche/#.XFCBuM3SJPY>

Fratocchi L., Ancarani A., Barbieri P., Di Mauro C., Nassimbeni G., Sartor M., Vignoli M., Zanoni A. (2014), *Il back-reshoring manifatturiero nei processi di internazionalizzazione: inquadramento teorico ed evidenze empiriche*, XXVI Convegno annuale di Sinergie “Manifattura: quale futuro?” 13-14 novembre 2014 – Università di Cassino e del Lazio Meridionale

Kasperkevic J. (2016), *Rana Plaza collapse: workplace dangers persist three years later, reports find*, The Guardian, 31st May 2016, <https://www.theguardian.com/business/2016/may/31/rana-plaza-bangladesh-collapse-fashion-working-conditions>

Pambianco, *Il made in Italy guida il reshoring in Europa*, (April 2018), <https://www.pambianconews.com/2018/04/23/il-made-in-italy-guida-il-reshoring-in-europa-235010/>

Il Sole 24 Ore (2016), *Sfida reshoring per il Made in Italy*, 09 May 2016, available at: <https://st.ilsole24ore.com/art/impresa-e-territori/2016-05-09/sfida-reshoring-il-made-italy-165504.shtml?uuid=ADbQrDD>

Intesa San Paolo – Direzione Studi e Ricerche, *Economia e finanza dei distretti industriali* (2016), Rapporto Annuale n. 9, paragrafo 4, Dicembre 2016

KPMG (2015), *The Italian Way L'industria italiana tra reshoring e nuovi modelli di sviluppo*, May 2015, [https://home.kpmg/content/dam/kpmg/pdf/2016/06/itKPGMTheItalianWay\(ItalyWorks2015\).pdf](https://home.kpmg/content/dam/kpmg/pdf/2016/06/itKPGMTheItalianWay(ItalyWorks2015).pdf)

LatLong.net, <https://www.latlong.net/place/>

List of NACE codes, http://ec.europa.eu/competition/mergers/cases/index/nace_all.html

Maggi M., Vergine S. (2014), *Torna a casa azienda: ecco chi riporta la produzione in Italia*, L'Espresso, December 15th, 2014, <http://espresso.repubblica.it/affari/2014/12/10/news/torna-a-casa-azienda-1.191322>

Pambianco D. (2014), *Back to Italy*, Intervento David Pambianco Palazzo Mezzanotte –Piazza degli Affari 6, Milano, November 13rd, 2014, <https://convegno.pambianconews.com/wpcontent/uploads/sites/19/2014/11/David-Pambianco-conv2014.pdf>

PWC (2015), *Reshoring: keep calm and go back home*, 7th Luxury Summit Il vero lusso è il “Made in Italy”, 10th June 2015, <https://www.pwc.com/it/it/publications/assets/docs/reshoring.pdf>

Reshoring initiative (2018), *Reshoring Initiative 2018 Data Report*, 2018, available at: http://reshorenw.org/content/pdf/Reshoring_Initiative_2018_Data_Report.pdf

Stefanelli F. (2017), *Post Global, Going to a "Local-to-Local" Approach. Sometimes*, The European Business Review, November 7th, 2017 <https://www.europeanbusinessreview.com/post-global-going-to-a-local-to-local-approach-sometimes/>

The Boston Consulting Group (2015), *Reshoring of Manufacturing to the US Gains Momentum*, December 10th, 2015,

<https://www.bcg.com/it-it/publications/2015/reshoring-of-manufacturing-to-the-us-gains-momentum.aspx>

The Economist, (2013) Here, there and everywhere,

<http://www.economist.com/news/special-report/21569572-after-decades-sending-work-across-world-companies-are-rethinking-their-offshoring>

The White House Office of the Press Secretary (2012), *President Obama Hosts "Insourcing American Jobs" Forum at the White House*, January 7th, 2012, <https://obamawhitehouse.archives.gov/the-press-office/2012/01/07/president-obama-hosts-insourcing-american-jobs-forum-white-house>

TRIPS: Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299, 33 I.L.M. 1197 (1994), https://www.wto.org/english/docs_e/legal_e/27-trips.pdf

World Bank Group (2001), *The New Wave of Globalization and Its Economic Effects*,

http://documents.worldbank.org/curated/en/954071468778196576/310436360_20050007015044/additional/multi0page.pdf

Summary

In the history of the world economy, location production decision-making has always drawn the attention of economists, academics and managers, since it is a topic with crucial implications in terms of investments, profitability, occupation, transports and trade. Indeed, the localization of companies' activities is strongly linked to the firm's strategy and has large impact on the company's balance sheet, notably costs. Therefore, in order to choose, implement and enforce the right sourcing decision, companies have undergone structuring and restructuring processes in their supply chains, over the years. This also occurred due to significantly changes in the factors determining business locations throughout history.

In order to survive in the globalised world chessboard, companies responded with international trade, networks of enterprises (clusters and partnerships) and foreign direct investments (FDI). The latter, in particular, refers to the process of *offshoring*, namely the partial or total relocation of a business activity to a foreign country. Since the 1980s, the offshoring has been a strategy widely implemented by companies which wanted to reduce labour costs, above all, and preserve and boost their competitive advantage while facing the fierce international competition caused by the globalisation, the liberalisation of the market and the unprecedented development of information and communication technologies (ICT).

Thus, the implementation of the offshoring decisions has been fostered by the increase of international trade, globalization and by the economic liberalization of low production cost countries; by the impossibility to produce enough quantities in the home country due to the shortage of raw materials; by the opportunity of meeting the foreign demand in a more direct and efficient way and by the impossibility to sell products in foreign countries either because of the nature of the products (think of the service sector) or because of the presence of protective barriers (think of the secondary sector); by the possibility of benefiting from the macroeconomic comparative advantages (lower wages, for example) which could be exploited in specific host countries, namely developing economies i.e. China or other Asian countries, Latin America, Eastern Europe. This new networked and global scenario affected the way companies operated, competed and redesigned their value chains on a global scale (Global Value Chains, GVCs) leading to the development of international configurations of the manufacturing activities defined as *global factory* (Buckley, 2004, 2009; Buckley and Ghauri, 2004), *international supply chain* (Casson and Wadeson, 2012; Casson, 2013), *global commodity chain* or *global value chain* (Gereffi and Korzeniewicz, 1994).

Although the offshoring phenomenon is not running low, in the last decade a counter trend has emerged in the international business scenario. In fact, companies which had previously offshored their production activities to a foreign country (either by insourcing or outsourcing) started to reconsider their strategy, since offshoring decisions have proved to be not so performing and profitable as managers thought, and to redesign their global value chain relocating the offshored processes back to their home country, within the domestic borders. This phenomenon is known as *reshoring*. Reshoring is the relocation of production activities previously offshored to the company's home country, i.e. the country where the company is headquartered. In recent times, the

phenomenon of manufacturing reshoring (Fratocchi et al., 2014), i.e. a company decision to bring production back to its home country, has gained momentum in the trade press (Booth, 2013) and in reports released by consulting firms (Laudicina et al., 2014; Sirkin et al., 2012; Boston Consulting Group, 2013). The phenomenon is not a mass trend (Laudicina et al., 2014) but its relevance is steadily increasing (Sirkin et al., 2012), therefore it deserves consideration and discussion. In this regard, attention to the phenomenon has been given by policy makers of Western countries, especially United States of America, in order to revitalise national manufacturing and increase the employment rate.

Indeed, labour cost in host countries gradually increased, as a natural effect of globalization, and innovation, automation and robotization (“Internet of Things”) have undergone a positive development in Western countries. Moreover, global competitive conditions, economic and political frameworks, customer location, price instability, attention to sustainability issues, currency valuation, transportation costs are rapidly changing in the international chessboard. Hence, these factors have deteriorated the attractiveness of localizing production activities in a foreign country and companies have begun to reconsider their offshoring decisions in countries which no longer offer favourable conditions.

As far as the goal that this Thesis aims to achieve, the objective of this study is to further the extant insights about the phenomenon of manufacturing location decisions, with a particular focus on the phenomenon of reshoring, and to investigate offshoring and reshoring drivers both from a theoretical and an empirical standpoint. In order to reach the objectives set, this Thesis has been structured in three chapters: the first chapter deals with the literature review, the second chapter focuses on the definition of the theory-based framework about the offshoring and reshoring drivers and, finally, the third chapter encompasses the empirical analysis carried out with a personal database stemming from the European Reshoring Monitor and the software Gephi.

To identify the phenomenon of companies’ “production repatriation” from a foreign country to their home country, literature has been using many different terms, as generally happens when there is a new and multi-faceted notion. In the current study, reshoring is the relocation of production activities previously offshored to the company’s home country, i.e. the country where the company is headquartered.

The reversal in the “shoring” decision-making trend seems to teach that the world in which companies operate has currently reached a level of complexity which doesn’t enable them to make a location production decision on a mere cost-advantage basis. Nowadays, companies have to consider multiple factors such as strategy, risk management, flexibility and supply chain reliability, when deciding where to locate and how to organize their manufacturing activities (Tate 2014) and not purely quantitative analyses that trade-off transport costs, scale economies, and other cost-based variables (MacCormac et al. 1994). Since location decisions have a long-term influence on the competitiveness and the operational processes of a company, they should be taken carefully (Dunning 2001).

Understanding why companies offshored their manufacturing activities and then reshored them back to their home country, and what's the economic and historical framework in which these practices developed, provides the basis to grasp the relation between the two phenomena.

After an introductory framework and a brief presentation of the main concepts which will be named throughout the Thesis, the first chapter provides an exposition of the extant literature on the phenomena of offshoring and reshoring, in order to understand how far academics have gone with their studies and researches on the subject. Over the past years, locational aspects of a company's value chain gained increased attention by scholars, academics, executives, practitioners and policymakers. In light of this, the international literature has released a sizeable and continuously growing amount of publications on the offshoring and reshoring phenomena. As far as the methodology used to build the current literature review (regarding both offshoring and reshoring), academic papers, reports released by consulting firms (e.g. McKinsey & Co., PWC, Boston Consulting Group) and articles issued by international press (The Economist, Il Sole 24 Ore, The Wall Street Journal), published until May 2019, have been considered. In the interest of identifying the relevant literature, international journals and academic databases like Google Scholar, Elsevier's Scopus, LexisNexis Academic, Springer, have been used entering keywords like "reshoring", "offshoring", "insourcing", "outsourcing" and so forth. Internet search engines have been employed as well inserting the same keywords. An important contribution to the formation of the body of references used to outline a literature review has been also given by the reference lists of the retrieved papers. Therefore, the so-called "snowball approach" has been implemented in order to detect meaningful further contributions. The result has been the collection of 120 papers and dissertations which have been studied and deeply analysed in order to grasp the insight and the knowledge provided, their contributions to the extant literature, their limits and the suggestions for further researches.

After the literature review, Chapter 1 presents the phenomenon of reshoring as it has really been implemented by firms throughout the world, with a specific focus on Europe and United States. Indeed, reshoring is increasing its presence in policy and business discussions on the future of manufacturing across OECD countries. The policy attention to the topic of reshoring is particularly remarkable in the United States, where it is considered as a firm's strategy expected to raise the employment rate and to revitalize American manufacturing industry. The main country from which American firms have reshored their value chain activities is China, which accounts for 59% of the total of reshoring cases, followed by Mexico accounting for 18% and Japan with 6%.

As far as the industries affected by the reshoring phenomenon are concerned, it is possible to rank them in terms of numerical importance as follows: transportation equipment; computer and electronic products; electrical equipment, appliances and components; chemicals; plastic and rubber products; apparel and textiles; wood and paper products; machinery; fabricated metal products; medical equipment. According to the findings, it is interesting to notice that comparing the United States with the European case, there are differences regarding the main sectors affected by reshoring, namely transportation equipment, computer and electronic in the former case and manufacturing (mainly wearing apparel) in the latter case.

Concerning the main drivers leading US companies to reshore their activities back to their home country, the main ones are: quality issues in the host country, re-assessment of the total cost of offshored production, delivery times, government incentives, proximity to market and customers, availability of skilled workforce and “Made in USA” effect. However, an analysis conducted by the *Uni-CLUB MoRe Reshoring* demonstrates that, while the drivers leading European firms to reshore are mainly related to consumers’ perception of the value and the quality of firms’ products, the drivers prompting American companies to reshore their activities refer mainly to cost-advantages.

Chapter 2 is aimed at outlining and describing a theory-based framework about the offshoring and reshoring drivers. The theory-based framework is going to be applicable to concrete cases of value chain location decisions, in order to define and interpret the behaviour of companies undertaking reshoring strategies. From a methodological standpoint, the framework is deductively generated basing on the extant literature and other documents (articles from newspapers, national and international specialized economic periodicals, consulting groups’ reports, international organizations’ documents). These sources are going to constitute the basis for the framework on offshoring and reshoring drivers delineated in Chapter 2 and applied in the empirical analysis encompassed in Chapter 3. Therefore, the Thesis is going to follow a two-stage approach: (1) deductive development of the conceptual framework grounded on systematic literature review; (2) application of the framework (and following refinement or enhancement thereof) on a specific sample of companies.

Afterwards, there will be a presentation of the main theories which have been considered throughout the reshoring studies in order to address the issue of the relocation of manufacturing activities from a theoretical standpoint. Indeed, in order to classify and analyse offshoring and reshoring drivers, it’s important to highlight that these motivations often revolve around economic rationales and rely on international business frameworks (i.e., the eclectic paradigm and internalization theory), strategic management theories (i.e., Transaction Cost Theory, Resource Based View) or international trade theory. After the description of the theoretical underpinnings of manufacturing location decisions (Transaction cost economics theory (TCE), Resource-based view (RBV), the Dunning’s eclectic paradigm (OLI model), the Internalization theory, the International trade theory, the modern international trade theory elaborated by Helpman, Melitz e Yeaple in 2004, de-internationalisation theory, foreign divestment theory), the reshoring dilemma is presented. Indeed, the decision to reshore has attracted a relevant attention in recent history and, in the economic and business framework, a dilemma about reshoring was born: some researchers and academics interpret reshoring as a correction of a previous (wrong) offshoring decision, others consider it as a step within the evolutive manufacturing location decision process of a company. Thus, two schools of thought have emerged: one considering reshoring as a “correction mechanism” as compared with a previous erroneous managerial decision (namely, the offshoring), the other interpreting it as a “simple change in strategy” due to changes occurred in the external and/or internal scenario. Giving an answer to this dilemma is not an easy task, as also understanding the complex nature of reshoring and its underlying motivations. In order to overcome the

dichotomous conceptualization of the reshoring phenomenon, the approach followed throughout this Thesis is the one according to which reshoring has to be considered as a step in the “non-linear” evolutive manufacturing location decision process, namely that reshoring is an answer to changes occurred in the firm’s internal and/or external environment. However, it’s still important to highlight that manufacturing sourcing decisions deal with many factors and motivations. Thus, individual global manufacturing location decisions should be analysed separately since every case is unique and the complex phenomenon of reshoring can stem from different motivations and conditions, depending on individual cases. What is important to bear in mind is that the global environment where firms operate is continuously changing and a dynamic long-term vision about the manufacturing location strategy is essential. A company interacts with different stakeholders and these relations modify and evolve over time. This leads the company to constantly think of its systems and strategic choices in order to assess them and be sure to have chosen the optimal ones. The most relevant factors when deciding the location for a manufacturing activity are: the product itself, labour costs and the labour skills required, transport costs, utility costs, lead time, level of technology and innovation required, trade barriers, exchange rates, economic, political, institutional, regulatory and geographical framework, flexibility, culture, the protection of intellectual property rights (IPR), the presence of industrial district.

At this point, in order to outline the theory-based framework about the offshoring and reshoring drivers, 41 prominent motivations can be identified, in total: 10 drivers for offshoring and 31 drivers for reshoring. Hence, the process of bundling of the drivers that influence production location decisions resulted in two different sets of drivers for offshoring and reshoring. A cursory look at the interpretative framework of international location decisions drivers reveals that the two bundles of drivers differ in one aspect in particular: while offshoring seems to be driven mainly by cost-efficiency drivers, in the reshoring quadrants stood out two categories of drivers, cost-efficiency motives but also motivations related to the company’s value. For offshoring, the key factors turned out to be (lower) labour costs, (lower) taxation and access to foreign markets. For reshoring, on the other side, the key drivers were found out to be quality, proximity to key customers, (lower) delivery and lead times, well-established infrastructures at home, proximity to R&D, availability of new technologies and automation at home, “Made in” effect and, finally, hidden costs related to a previous offshoring decision.

In order to integrate and strengthen the theory-based framework which has been presented in Chapter 2 and that focuses on offshoring and reshoring drivers, Chapter 3 presents a database of cross-country and cross-industry reshoring decisions. Indeed, to develop a better understanding of the reshoring phenomenon and of its current stage in Europe, data have been collected between January to August 2019, mainly via the online database, constantly updated and publicly available on the European Reshoring Monitor website.

However, the topic that this Thesis aims at investigating, reshoring, proves to be a heterogeneous phenomenon, meaning that it constitutes a response to various challenges a company may face. What stands out from the

analysis is that cost is no longer the major force driving companies' location decisions. Instead, other factors such as quality, market access, supply chain-related drivers (delivery lead time, logistic costs, flexibility, suppliers' availability), innovation, have emerged as crucial elements to decide the location of a firm's production activities and nowadays rank as the most important factors. It is possible to draw the conclusions that production location decisions have shifted from being merely operational decisions based on cost-efficiency to becoming strategical decisions, meaningful for the core business of a firm and thus, encompassing many other aspects in addition to cost-related factors. Hence, the reversal of the trend in companies' production location decisions, from a situation where basically only offshoring was taken into account, to a situation where companies rethink their prior decisions and consider to reshore their activities back to their home country, reflects changes in companies' conception of production location decisions that years ago were considered merely operational decisions led by cost-related factors, while nowadays gained a strategic importance. Therefore, the topic of production location decision can't be entirely explained by changes in relative costs between home and host countries. In order to fully understand the manufacturing location decisions and the logic behind them, the full bundle of drivers identified in this analysis should be taken into consideration.

Moreover, the framework is grounded in both strategic management theories and international business. Indeed, both the results of this analysis support the resource-based view theory (RBV) and the transaction cost economics theory (TCE). As far as the TCE theory is concerned, offshoring's and reshoring's bundles of drivers encompass cost-related factors, which entails that also reshoring decisions follow the TCE theory. Besides, both bundles of drivers proved to follow RBV theory since they show the objective of attracting important and meaningful resources. Furthermore, this analysis also supports the Dunning's OLI Model since some drivers can be traced to: market seeking advantages (e.g., market access); efficiency seeking advantages (e.g., cost-related drivers); strategic asset seeking advantages (e.g., quality, synergies within domestic clusters); resource seeking advantages (e.g., well-established infrastructures). Thus, from the above-presented theory-based framework, it's not possible to identify only drivers attributable to Dunning's efficiency seeking advantages. It's possible to explain this confirming that companies are moving away from making production location decisions basing only on cost-related drivers because, on the contrary, other motives are taking over.

To develop a better understanding of the reshoring phenomenon and of its current stage in Europe, an empirical analysis has been conducted in Chapter 3 of this Theses and data have been collected between January to August 2019, mainly via the online database, constantly updated and publicly available on the European Reshoring Monitor website. Despite the increasing rate of firms considering and implementing a reshoring strategy and the consequential interest in companies' reshoring initiatives coming from academics, it has to be noticed that quantitative data of the phenomenon are still fragmented. This lack of information about reshoring cases is often due to the fact that the interested business unit is often below the level of a plant (e.g., a production line) and therefore data are difficult, if not impossible, to obtain. Moreover, most of reshoring

initiatives are implemented as part of the company's business strategy. This means that, depending on the aim that the company wants to achieve implementing the reshoring strategy, the firm can decide to not release the announcement of the new strategy and keep it within the company's borders. Furthermore, when reshoring is implemented as a corrective strategy of a previous, erroneous, offshoring strategy, the company may want to proceed secretly, otherwise it would have to admit the strategic mistake concerning the offshoring.

The focus of the empirical study is the analysis of European companies operating in the Manufacturing sector (Code C – NACE 2007) which have offshored and then reshored their production activities in the time period running from 2011 to current days. The study examines a sample of 196 reshoring decisions which account for 170 European companies analysed. This means that 26 reshoring decisions constitute a duplicate, a triplicate or even a quadruplicate of a single company. Findings show that the three European home countries which record the highest number of reshoring decisions are, in descending order, France, Italy and United Kingdom, which account, respectively, for 29, 33 and 36 reshoring cases and 14,8%, 16,8% and 18,4% of the total of reshoring decisions implemented by European companies. Referring to the home European countries less affected by the reshoring phenomenon, the findings lead to the conclusion that these are Austria, Greece, Belgium, Croatia, Ireland, Latvia, Netherlands, Portugal, Slovakia and Switzerland, where the first two account for 1 reshoring decision recorded and the rest accounts for 2 reshoring decisions, sometimes even implemented by the same company as it happens for Croatia or Ireland.

Being reshoring the relocation of the company's activities previously offshored to a foreign country, it's useful and interesting to investigate the geographical area where manufacturing activities were offshored, prior to reshoring. As for the findings, 36,6% of total offshoring operations concerns China which stands out among all the other offshoring countries with 71 offshoring decisions. Afterwards, Poland records the second highest number of offshoring decisions with 13 offshoring cases and then Germany with 10 offshoring cases.

The inclusion of all the European companies having undertaken a reshoring initiative operating in the manufacturing sector represents a relevant strength of this research since it allows to focus on a single, crucial, sector for a country's economy and understand why some companies felt the need to relocate their business activities back to their home country considering that they were previously offshored abroad. As far as the breakdown by sub-sector is concerned, it should be noted that reshoring has affected various industry sectors. Overall, the most affected sector is the Manufacture of wearing apparel (C14) which accounts for 24 cases, followed by Manufacture of food products and Manufacture of machinery and equipment n.e.c. which both account for 20 cases and Manufacture of computer, electronic and optical products which accounts for 18 reshoring cases. The less reshoring-affected sectors belonging to the section "C – Manufacturing" are: Manufacture of tobacco products, Manufacture of coke and refined petroleum products and Repair and installation of machinery and equipment which account for 0 reshoring cases, and then Manufacture of other non-metallic mineral products and Industrial and Commercial Machinery and Computer Equipment which account for 1 reshoring case, and, finally, Manufacture of paper and paper products and Manufacture of chemicals and chemical products which account for 2 reshoring cases.

It is possible to notice that the fashion sector, namely manufacture of textiles, manufacture of footwear, manufacture of wearing apparel and manufacture of leather and related products, overall, accounts for the most reshoring-affected sub-sector with a total number of reshoring cases equal to 35 reshoring cases. These findings are particularly relevant for Italy which is the country mainly concerned by the phenomenon of reshoring implemented within the fashion sector. Indeed, Italy stands out compared to all other European countries since it accounts for 43% of reshoring cases within the fashion sector (C13 - Manufacture of textiles, C14 - Manufacture of wearing apparel and C15 - Manufacture of leather and related products) on its own. These results can be explained by the fact that Italy boasts a unique specialisation in the fashion system through all the value chain, from design to craftsmanship.

Moreover, in order to deepen the research on the industry sectors affected by reshoring, a backwards analysis about the offshoring decisions is carried out. This analysis is useful in order to understand where European companies operating in certain sectors had offshored their production activities and then decided to reshore them back to their home country. From the analysis emerged that almost for each selected sub-sector, there is one geographical region (continent) which stands out compared to the others in terms of highest number of offshoring cases recorded. For instance, in the case of C10 – Manufacture of food products, 17 out of the 20 reshoring cases stem from an offshoring in Europe, while Asia, Africa and America account, respectively, only for 10%, 5% and 0% of the total offshoring cases. The majority of European companies deciding to reshore their production activities and operating in the Manufacture of wearing apparel sector (NACE code C14), on the contrary, previously offshored their production activities in Asia. As far as the Manufacture of computer, electronic and optical products sector is concerned, the majority of European companies reshoring their production activities had previously offshored them in Asia. In this case, the percentage of offshoring cases in Asia is 67%, compared to 22% of Europe, 0% of Africa and 11% of America. With regards to the C28 - Manufacture of machinery and equipment n.e.c. sector, the number of offshoring cases in Europe and Asia are almost equally represented (55% and 40%, respectively). Finally, in the Manufacture of other transport equipment sector, the majority of European companies reshoring their production activities had previously offshored them to Asia, with a percentage of 81% compared to 19% of Europe, 0% of Africa and 0% of America. Findings show that the sector plays an important role when offshoring and then reshoring. An inquiry on *why* in certain sectors it's recorded a higher number of reshoring cases and *why* almost all the companies operating in a certain sector, and deciding to reshore their production activities, had decided to remove their activities from the same geographical region can be investigated.

Moving to the breakdown of the data by a time criterion, the study reveals that the phenomenon came forward largely since the turn of the millennium, with a meaningful acceleration in the last decade. The number of reshoring cases increases significantly after 2013, reaching the peak in 2017 with 59 reshoring cases recorded in the Manufacturing sector in Europe.

Furthermore, an analysis of the motivations driving European companies operating in the Manufacturing sector to reshore their production activities has been conducted. For all the companies constituting the

database, a research on the drivers leading them to reshore has been carried out within the European Reshoring Monitor website. For each company, a list of reshoring drivers has been set and 60 different reshoring drivers have been registered. The number and the variety of reshoring drivers confirms the heterogeneous and complex nature of the reshoring phenomenon highlighted in the previous chapters. Due to the different weight of the reshoring drivers claimed by the companies, it is deemed appropriate to focus the attention on those mainly relevant, identifying them with the first 10 which have been stated. With a percentage of 8,9%, the motivation which drives most of the European companies to reshore, according to the analysis, is delivery time. Thus, it's possible to conclude that a reason connected to the supply chain flexibility is the one which recurs more frequently among the companies deciding to reshore their production activities back to their European country. As explained in Chapter 2, delivery time is of crucial importance since, if it increases, it can generate costs and have a negative impact on the time efficiency of the firm's supply chain. Besides, if delivery time rises over a certain, predetermined, time, it can cause missed sales opportunities and thus, missed revenues and/or higher costs. The second-most-recurring reshoring driver is automation of production processes which is, in particular, related to the home country. Indeed, companies decide to reshore because their manufacturing process requires a specific and higher level of technology and innovation in order to be performant and efficient. In fact, some processes may require advanced technologies, innovative and sophisticated machines, or they may need to be executed close to the firm's R&D department in order to be constantly monitored and, eventually, enhanced, adjusted and updated. In this case, a company operating in a developed economy, should seriously consider locating its production activities close to its R&D centre. Moreover, with a percentage of 7,5%, European companies declared to have reshored because of a firm's global reorganization of the company. The following three reshoring drivers refer to the perceived value that customers have about companies. With a percentage of 7,4%, the poor quality of the offshored production covers the fourth position in terms of most recurrent reshoring drivers. Afterwards, the "Made in" effect, namely the origin of the product, is considered so important to drive a reshoring decision for 42 European companies (6,9%) operating in the manufacturing sector. Finally, in sixth place, the proximity to customers affected 40 reshoring decisions. Only in seventh position, with a percentage of 5,2%, it's possible to find the first reshoring driver related to costs, in particular, to change in total costs of sourcing. Afterwards, within the first 10 reshoring drivers, there isn't any motivation related to costs. Indeed, the eighth motivation refers to the know-how in the home country which the company can exploit differently than when offshoring abroad where the know-how is usually of a lower level compared to the domestic one. With a percentage of 3,9%, the untapped production capacity and thus, a motivation of production-capacity nature, is the following reshoring driver for number of companies' declarations. Finally, the tenth reshoring driver is the implementation of strategies based on product/process innovation which recalls the automation of production process with a specific reference to the business strategy.

The analysis can be pushed to a further level gathering all the reshoring drivers in categories: automation and technology of (home country) production processes, changes in business strategy/ firm's reorganization,

changes in the external environment, changes in total costs, difficulties related to offshoring, distinctiveness of the home country, government support to relocation, quality, supply chain flexibility. The first macro-motivation leading European companies operating in the manufacturing sector to reshore is connected to the improvement of their supply chain flexibility which accounts for 27% of the total number of reshoring drivers organized in categories. Indeed, offshoring stretches logistic and delivery times and leads to higher costs connected with inventories, transport, storage, long customers' waiting times. After supply chain flexibility, what drives companies to reshore is the distinctiveness of the home country which leads the European company to relocate its activities back to the domestic country which allows the firm to boast a better image in terms of corporate social responsibility and "Made in", it strengthens the brand image, it enables the firm to exploit the domestic (and higher-level) know-how together with a higher protection of the intellectual property.

Costs are only the third category of drivers leading companies to reshore, meaning that they are still of great importance when making a location decision, but not of primary importance as one might mistakenly think. Change in total costs is a broad category which includes change in total costs of sourcing, taxation, energy costs, exchange rate risk, higher inventory costs, labour costs' gap reduction due to the increase of labour costs in developing countries and, finally, logistics costs. A separate discussion is deserved for the category quality which accounts for 58 cases but it's actually of great importance within the reshoring phenomenon. Quality is, indeed, a driver hardly attributable to only one category since it can relate to difficulties related to offshoring, because of the poor quality experienced by companies producing abroad, but also to the distinctiveness of the home country, if it is considered as the unique quality that the local craftsmanship is able to realize.

With respect to the geographical distribution of reshoring drivers, it's interesting to notice a peculiarity of the Italian case. Indeed, the most relevant reshoring driver is the "Made in" effect which has been declared by the 64% of the analysed Italian companies. Such evidence can be explained considering the weight of the fashion industry on the total of reshoring decisions implemented in Italy. Italy can boast a unique history, craftsmanship, know-how, savoir-faire and expertise in all the sectors forming the fashion system (textile, wearing apparel, footwear, leather goods). This unique characteristic, combined with an increasing customers' desire to know about the origin of a product and the undeniable and inimitable value of the brand "Made in Italy", had an impact on Italian companies' decision to relocate their production activities back in Italy. This decision has also been fostered by the presence of business clusters, namely a unique network of suppliers and craftsmen's workshops which encourage Italian companies to bring their production back. Moreover, the "Made in" effect contributes to the brand image and thus, to the effective positioning of the brand. Therefore, it should be carefully and thoroughly managed in the sense of a value-driven arrangement of production and sourcing. Indeed, consumers are more and more interested in the provenance of the products they buy and use and firms, becoming aware of it, need to be more cautious about the negative aftermaths that offshoring production processes can bring.

The analysis of the original database has led to the result that a total of 12,840 new jobs have been created thanks to the phenomenon of reshoring between 2014 and 2018. Moreover, two issues, connected to two different reshoring drivers growing in importance, emerge from the analysis. The former is that companies which reshore in order to leverage the untapped production capacity available in the home country do not increase the number of new jobs created. The latter is that the increasing weight of automation of production processes implies limited employment creation.

To sum up, the main findings of the analysis are presented. First, the theory-based framework outlined in Chapter 2 proves effective in classifying the different reshoring drivers emerging from the empirical analysis. Thus, the database analysed in the current chapter confirms the strength and the robustness of the framework built upon the extant literature. In light of the theoretical and empirical studies presented in previous paragraphs, it's relevant to highlight that the key drivers leading European companies to make the reshoring decision are not just related to costs. Indeed, there are other meaningful factors, with delivery time, automation, quality and "made in" effect becoming dominant drivers. Moreover, the poor quality of the offshored productions together with the current increase in costs in host countries, have hindered the advantages stemmed from offshoring and led companies to reshore their production activities back to their home country. From the analysis it's also possible to understand that the firm's production is reshored when the products embody distinctive elements which are difficult to reproduce in other, foreign, productive environments. For example, in order to realise some products, intangible assets such as artisan workmanship, specific skills, positive externalities generated by the industrial context and innovative technologies are required. Relocating production activities back to the home country allows to exploit such resources and, secondly, it enables the firm to position its products in higher market segments and charge a higher price. Moreover, reshoring affects positively the local supply network, industrial system and level of employment leading to a strengthening of the national and local manufacturing supply system.

The findings suggest a disconnection between drivers for reshoring and drivers for offshoring. A plausible interpretation of these results is that lower costs of offshoring brought with them lower quality in finished products, difficulties in controlling foreign suppliers and coordinating all the parties, obsolete technologies implemented in the production processes affecting the service level and other negative aftermaths. This made companies realise the importance of the previously penalised factors and focus on them in order to keep the company's value high, the customers' satisfaction met and the firm's performance efficient. Besides, the increase in customers' demand for customization and higher variety of products, the contraction in costs differentials among different countries, the increase of supply chain risks, complications and deadlocks in controlling offshored activities and the coordination of long-distance partnerships, undermine the benefits provided by lower input costs on performance and bring companies to change (reverse) their location decision. Leaving the discussion on the reshoring drivers and focusing on the geographical aspects of the phenomenon, another analysis can be conducted using the software Gephi, which allows to visually describe network effects. With the "GeoLayout" it's possible to visually understand the scale of the reshoring phenomenon. In particular,

having analysed European companies, there is a concentration of nodes in Europe corresponding to the companies' reshoring decisions. The nodes in Eastern Europe, as well as the nodes outside Europe, correspond, on the contrary, to the respective offshoring decisions. The Gephi "GeoLayout" allows us to visually understand the pre-eminence of Asia, and, in particular, China, as a destination chosen by European companies operating in the manufacturing sector to offshore their production activities prior to reshoring. Few cases of offshoring can be registered in Oceania and America, while an important position in terms of number of nodes is also covered by Eastern Europe, which is another attractive destination chosen by European companies for offshoring, prior to the implementation of reshoring.



Figure: Gephi graph.

Source: Personal elaboration of the above-explained concepts

The current study is useful to draw important implications for both managers and policy-makers. Since reshoring has proved to be an effective strategy to reduce logistic and production costs, to improve products' quality, to increase the business efficiency and to raise supply chain's flexibility, managers should consider it attentively. The bundle of reshoring drivers built on the literature review and supported by the empirical analysis provides executives and managers a comprehensive overview of the factors which have to be taken into consideration by a company when choosing a grounded production location decision. Moreover, the frequency of each driver recorded in the tables laid down in Chapter 3 can help managers with an initial evaluation of their relative importance. Overall, the current study prompts managers to carefully assess the production location decision since it depends on a complex bundle of factors related both to the internal and external environment. Thus, the production location decision should be made after a careful evaluation of all the factors and it should be grounded on dynamic and strategic assessments.

As far as the implications for policy-makers are concerned, these are crucial in order to make the reshoring phenomenon grow within a country. Indeed, reshoring has positive implications for employment and the industrialization of a certain area. In order to exploit the positive consequences that reshoring can generate, local and national policy-makers should implement policies with the objective of increasing the value of a certain area and building territorial ecosystems able to favour the generation (or the enhancement) of business environments. Indeed, as also this study mentions with the Italian case, companies are more willing to relocate their production activities back to their home country if this one hosts industrial clusters with strong networks of suppliers, a certain level of industrial innovation and a positive business environment suitable for efficient performance. By favourable and positive business environment it is meant an environment characterized by the availability of craftsmanship, presence of suppliers and leading enterprises, banks willing to invest and support reshoring initiatives, public institutions capable of guiding these processes, technical schools and universities able to teach specific competences. That's why, it's extremely important that policy-makers pay attention to these aspects in order to prompt reshoring initiatives and benefit from them in terms of employment and level of industrialization of the area and the country.