Reshoring Process of Manufacturing Ventures in the UK: An Emergent Theory Perspective

By

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Abstract

Purpose: The aim of this research is to examine the reshoring process by shedding light on the drivers, barriers, decision-making and implementation phase. Current theoretical explanations of reshoring have not adequately considered the dynamics of the phenomenon. This research aim is to theoretically explain reshoring through the perspective of the emergent theory that takes into consideration the dynamic environment in which the reshoring process occurs. Practically, the research aim is to provide a conceptual framework that includes information about the reshoring steps and decision-making, and how to apply each step in a dynamic environment. This conceptual framework's main purpose is to assist and support reshoring managerial decisions to relocate back to the UK successfully by adopting a flexible approach consistent with the dynamic environment.

Design/methodology/approach – The research deploys mixed methods. The quantitative research was conducted using a survey that obtained 113 complete responses from UK reshored manufacturing. The qualitative research collected data from 10 interviewees through semi-structured in-depth interviews. The quantitative data was analysed using SPSS26 and descriptive statistics. The qualitative data was analysed using thematic analysis and NVIVO.

Findings – The findings of the research suggest that reshoring drivers, barriers, decision-making and implementation is a dynamic process. The drivers and barriers emerge from the business environment unpredictability, and therefore should be identified based on a flexible reshoring approach, which is able to consider, add, and eliminate factors accordingly with the environmental uncertainties. The decision-making and implementation process emerges from the dynamic drivers and barriers and occurs in an unpredictable environment. This makes the decision making-phases highly dynamic. Thus, this research proposes this phase should be based on a flexible approach characterised by a looping process, not sequential (Mintzberg et al., 1976).

Contribution – First, the research sheds light on the dynamics of the reshoring process, and the importance of formulating a reshoring strategy that takes into consideration the uncertainties of the environment. Second, the analysis revealed a UK perspective of the drivers and barriers of reshoring. The study contributes to extending the factors related to the drivers and barriers to a larger set. New findings concerning driver factors are the government support for reshoring, legal issues, and the "made-in-effect". For the barriers, the study shows novel findings – which are: the lack of availability of factories and lands for manufacturing, legal issues, and psychological challenges. The new findings have been explained and discussed in the context of the UK economy and market. Concerning the decision-making and implementation phase, the study contributes to an in-depth explanation by providing the steps of these phases and by empirically explaining what happens in each phase. Third, this study contributes to forming a theoretical explanation of the reshoring process dynamics based on emergent theory (Mintzberg et al., 1976). The reshoring process, grounded upon emergent theory, is a dynamic phenomenon that requires an emergent strategy. The emergent strategy is characterized by management's ability to continuously adjust and adapt to environment unpredictibilities and uncertainties (Mintzberg & Waters, 1985). This is done through continuous cycles of decision making until the reshoring is achieved (Mintzberg & Waters, 1985). The strength of this theory is that it considers the risks and opportunities of the environment in which the reshoring occurs (Mintzberg & Waters, 1985). Fourth, this research proposes an empirically and theory-based conceptual framework of the reshoring process to support future decision-makers with their reshoring strategies. This conceptual framework is the first to have the complete phases of reshoring, which are the drivers, barriers, decision-making and implementation. In the conceptual framework, the reshoring process phases are explained through a step-by-step guide to support reshoring decision-makers. Thus, the research contributes to a practical understanding of the process of reshoring through a dynamic lens by explaining each phase and its steps set in an unpredictable environment.

Originality/value – The literature is missing a theoretical understanding of the reshoring process. This research provides a theoretical explanation of the reshoring process from a dynamical lens based on the emergent theory. New empirical findings from a UK perspective have been explained and discussed that are important for future reshoring decision-makers. Moreover, the theory-based conceptual framework is the first to include a step-by-step flexible practice approach that includes all the reshoring phases.

Keywords: *Reshoring, Offshoring, Location decision-making, Manufacturing Relocation, Reshoring drivers, Reshoring barriers, decision-making, emergent theory*

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DECLARATION

This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

Signed: **Laila Maazouz**
Date: **15/02/2022**

STATEMENT 1

This thesis is the result of my own investigations, except where otherwise stated. Where correction services have been used the extent and nature of the correction is clearly marked in a footnote(s). Other sources are acknowledged by footnotes giving explicit references. A bibliography is appended.

Signed: **Laila Maazouz**
Date: **15/02/2022**

STATEMENT 2

I hereby give consent for my thesis, if accepted, to be available for deposit in the University's digital repository.

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Chapter 1

Introduction

1.1 Introduction

The current available knowledge of the reshoring process explains this phenomenon based on a rational understanding (Wiesmann et al., 2017). However, in this research the actual reshoring process is viewed as a dynamical process. This assumption perceives reshoring as an emergent phenomenon because it happens in an uncertain and unpredictable environment. This means the uncertainties and unpredictability that emerge during the process of reshoring may affect the reshoring strategy if not taken into consideration throughout the reshoring process. Volatile markets caused by fluctuating global economy, politics, regulations, and laws trigger unpredictability to emerge (Boffelli et al., 2020). Even though, studies in the location decisions such as offshoring and outsourcing have explained these phenomena through a dynamic perspective (Bals et al., 2016), the reshoring process has not yet been explained from a dynamical lens. This remains a gap that this research aims to fill.

The current knowledge of reshoring has focused in explaining what this phenomenon means, and why it is currently happening (Fratocchi et al., 2016; Wiesmann et al., 2017). However, the decision-making and implementation process remains unexplored (Barbieri et al., 2018; Boffelli et al., 2020). Very few studies have tackled the "how" (Barbieri et al., 2018; Boffelli et al., 2020). This is because reshoring is a new trend still in its enfant stage (Boffelli et al., 2020). However, multiple studies' future research avenues have stressed into the importance of providing more knowledge in the decision-making and implementation of this strategy to support the future reshoring cases return successfully to the home country (Barbieri et al., 2018; Bals et al., 2016; Boffelli et al., 2020; Wiesmann et al., 2017). The purpose of this study is to respond to these future research avenues and contribute to a better understanding of the reshoring strategy.

This chapter provides an introduction of the study. The chapter begins with the background of the research to provide an overview of the present knowledge about the reshoring process. Then, the literature gap is addressed through the problem description. This is followed by a statement of the research purpose presented through the aims, objectives, and research questions. Finally, the outline of the research is described in the last section of this chapter to provide the structure of the study.

1.2 Background of the study

Firms nowadays are embarking on reshoring their business operations because the global and UK economic conditions – especially considering the Covid-19 pandemic and Brexit – are changing (Harris et al., 2020; McIvor & Bals, 2021; Strange, 2020). A recent study conducted by Strange (2020), highlights the adverse negative effects the pandemic had on the economy that affected the business structure, business operation, and supply chain. Many organisations have experienced unexpected supply chain disruptions due to successive lockdowns caused by the pandemic (Strange, 2020), especially on essential products such as masks, personal protective equipment, ventilators, medications, and agriculture (Gurvich & Hussain 2020). Similarly, concerns over the prospects of increased tariffs due to Brexit have also driven firms to think and review their supply chains and location decisions (Barns-Graham, 2020). Now, manufacturers are considering reshoring for more responsive and closer to home suppliers and production (Barns-Graham, 2020). In addition to this, cost advantages have declined in many offshore locations, as claimed by Julia Moore, the chief executive of manufacturing resource centre GTMA and head of ReshoringUK platform (Barns-Graham, 2020). For this reason, firms are increasingly reshoring for more flexibility in their supply chain, better quality, lead-time, control over volume and easier contact with suppliers and consumers (Barns-Graham, 2020). Recent data from the European Reshoring Monitor (ERM) reported more than 250 UK manufacturing reshoring cases from 2014 to 2018 (ERM, 2019). For example, the fashion retailer ASOS has relocated production in

factories in Leicester, and Ted Baker have announced a 'Made in Britain' clothing and accessories production chain (Barns-Graham, 2020). Similarly, in the automotive sector, Jaguar Land Rover and Vauxhall have reshored back to the UK to improve customer satisfaction and regain control over production (Barns-Graham, 2020). While many firms' have already reshored, several others have openly expressed they interest into relocating to the UK in the near future (EY, 2015).

In these last years, interest in research of reshoring rose among scholars and practitioners (Fratocchi et al., 2016; Stentoft et al., 2016). This is because unlike the widely explored location decisions in the literature (Schoenherr et al., 2008; Platts and Song, 2010; Holweg et al., 2011; Zorzini et al., 2014), reshoring is a new phenomenon still not well studied (Benstead et al., 2018; Wiesmann et al., 2017). Yet, this makes the decision-makers faced with a lack of knowledge and proper understanding. This is why in their article, Gray et al. (2017) claimed the reshoring is a complicated process that should be grounded upon a deep understanding, and therefore advised managers and executives not to implement this strategy until further research is done.

The available knowledge in the literature has focused in explaining the meaning of reshoring and why it happens (Wiesmann et al., 2017; Fratocchi et al., 2016). Defining and understanding the motivations of reshoring is important to understand the foundation of this topic (Wiesmann et al., 2017). However, an in-depth explanation of the reshoring process is required to assist the future managerial decision with their reshoring decisions in a dynamic environment. The reshoring strategy is distinctively different from other location decisions because it requires revising and reversing previous offshoring decisions from the host country to the home country (Benstead et al, 2017; Gray et al. 2013; Boffelli & Johansson, 2020) and these decisions usually involves a change of ownership, such as from a foreign supplier to a domestic in-house supplier (Fratocchi et al. 2014), which makes this strategy complex and difficult to apply (Boffelli & Johansson, 2020).

The complexity of the reshoring strategy is characterised by the firm reversing previous strategies and bringing the business activities back to the home country whilst maintaining operations, revenues, and profitability in a competitive and dynamic environment (Benstead et al., 2017). This business strategy is a response to unpredicted changes that has affected the firm expectations in their offshoring locations (Fratocchi et al., 2016). Whereby for a long-time the offshoring locations have allowed firms to operate where more advantages can be achieved (Boffelli et al., 2018; Wiesmann et al., 2017), the attractiveness of offshoring locations diminish over time due to numerous unpredictable factors including but not limited to the global economy changes, political uncertainties, labour wage rises, supply chain disruptions, and currency fluctuations (Dunning, 1993; Lo & Hung, 2015). In addition to this, the world is currently more aware of the benefits of greener production, pushing many firms to lean toward sustainability, which slowly became a necessity to improve customer satisfaction, increase brand image, and gain competitive advantages (Robinson & Hsieh, 2016). Thus, reshoring decisions being one of the options available for the firm to have more control over these factors (Ciabuschi et al., 2019; Joubioux and Vanpoucke, 2016; Murat, 2013) emerges from unpredictable and unexpected events caused by the dynamics of the environment (Mirabeau & Maguire, 2014).

Hence, the dynamical environment creates a series of unpredictable actors and events that causes high risks and challenges for the firm when reshoring (Mintzberg & Waters, 1985). For instance, supply chain issues, problems related to the production, scarce raw materials, weak infrastructure, lack of skilled labours, political conflicts, and changing business regulations & laws (Bals et al., 2016). Consequently, the dynamical environment affects the process of the decision-making and implementation of reshoring, causing transition difficulties that can negatively impact the business operations, activities, revenues, profitability, competitive advantages, and perhaps leading to undesired consequences.

1.3 Statement of the problem

The reshoring process is completed through several phases, including identifying the drivers and barriers, decision-making process, and implementation phase (Bals et al., 2016). The current available explanations of reshoring assume these phases are stable and predictable (see, Bals et al., 2016; Johansson & Olhager, 2018; Wiesmann et al., 2017). Nevertheless, the current literature fails to realise that firms operate in a socially, technologically, politically and economically constantly changing environment, which affects the drivers, barriers, decisions-making process, and implementation of reshoring in an uncertain way. The fact that the reshoring phenomenon emerges from the environment unpredictability requires the strategy to be based on a flexible approach that enables the decision-makers to continuously adapt their strategy to the environment uncertainties. However, an analysis of reshoring process from a dynamic perspective remains unexplored in both the research and practice literatures, which may be explained by the reshoring phenomenon being a new and under researched topic (Wiesmann et al., 2017).

First, the current literature shows that reshoring mostly covers the drivers, also known as the motivations of reshoring (see: Agrawal et al., 2019; Benstead et al, 2017; Carmel, 2003; Gray et al. 2013; Fratocchi et al., 2016; Tate et al., 2009; Tate et al., 2014; Lo & Hung, 2015; Wiesmann et al., 2017). Some authors have evaluated the drivers of reshoring upon the challenges faced in the offshore locations (Carmel, 2003; Fratocchi et al., 2016; Tate et al., 2009; Lo & Hung, 2015; Agrawal et al., 2019). For example, Tate et al., (2009) have examined and analysed the drivers of reshoring from a behavioural perspective. Lo & Hung, (2015) have highlighted the negative influence of the long geographical distance between the firm headquarter and its offshore production site on the creativity and development of the business. And Agrawal et al., (2019) investigated the firm-specific pushing factors such as the loss of supplier partnerships and lack in protection of intellectual property in the foreign countries. Authors such as Kinkel

& Malorca, (2009) and Kinkel, (2012) have explored this strategy assuming reshoring is a corrective mechanism to previous offshoring decisions and explained the drivers from this angle. Whereas, Robinson and Hsieh, (2016) and Fratocchi et al. (2016) studies suggested this business strategy could be driven by voluntary decisions adopted to seek competitive advantages in the home country and explained the drivers through this assumption. A later study conducted by Wiesmann et al. (2017) explained the drivers and provided factors that cover both the corrective mechanism and voluntary decision. Other scholars have investigated the drivers based on global events (Tate, 2014; Zhou et al., 2018). For example, Tate (2014) article showed the 21-century has seen constant changes in prices and business regulations, which were the major drivers for reshoring. Kumar et al. (2009) added that the emerging countries, usually considered low-cost destinations have been highly affected by increased costs of labour, raw material, transportation, as well as currency fluctuations, and continuously changing taxation rules. Also, MadalinaIoana (2014) provided a study on the economic recession that have caused the global economic crisis, which have affected the offshoring manufacturing between 2008 and 2009 and leading to many reshoring cases. In this context, the firm decrease of profitability caused by the environmental volatility negatively affects the business expectations, leading to reshoring considerations (Barbieri et al., 2018). Therefore, the available knowledge in the literature has moderately tackled the driver factors of reshoring. However, only two studies conducted by Benstead et al. (2017) and Robinson & Hsieh, (2016) have been based in the UK context. In addition to this, the existing knowledge of the reshoring drivers is founded upon rationality, and an understanding from a dynamic lens is not available yet. Regarding the barriers of reshoring, a small body of literature exists (Stentoft et al., 2015; Wiesmann et al., 2017; Engström et al., 2018). In the literature, Wiesmann et al. (2017) is the first research to explore the drivers and barriers of reshoring equally. Nevertheless, the study conducted by Stentoft et al. (2015) was more focused into the drivers of reshoring and the article has listed the barriers

briefly with not much details and explanations. A later study conducted by Engström et al. (2018) has used the same factors listed by Wiesmann et al. (2017) study, but refined the research based on the Swedish market. However, both studies assume the barriers factors are stable and explained these latter through a bounded rational perspective. Therefore, the literature is still lacking an understanding of the drivers and barriers from a dynamical lens. Moreover, studies based on the UK are very scarce, which shows a void of knowledge related to the UK market.

Second, the decision-making process and implementations have been highlighted to be the most important aspects of the reshoring strategy, and the least explored by academics (Bals et al., 2016; Boffelli et al., 2020; Gray et al., 2017). This is not surprising as firms are reluctant to make their mistakes public (Gray et al., 2017). Besides this, reshoring does not constitute an item that must be registered in the official statistical sources (Gray et al., 2017). Consequently, there is not much information and knowledge about how firm reshore their business operations (Wiesmann et al., 2017). A recent systematic literature review conducted by Barbieri et al. (2018) showed that multiple studies have attempted to explain the decision-making and implementation process of reshoring, but still were not able to provide a clear understanding on the "how". Studies such as Barbieri et al. (2018), Boffelli et al. (2018), Boffelli et al. (2020), Gray et al. (2017), and Wiesmann et al. (2017) have explained the reshoring decision-making and implementation process assuming it is a rational strategy. Though, the reshoring process, builds upon an understanding based on rationality and stability do not consider the environment uncertainties and unpredictability.

Third, the current theoretical explanation available in the literature is based on a rational perspective that stands for stability (Boffelli et al., 2018; Ciabuschi et al., 2019; Foerstl et al., 2016; Fratocchi et al., 2016; Wiesmann et al., 2017). The stable theoretical explanation means the firm is not able to apply the rational strategy in a dynamic situation (Benstead et al., 2017). Examples of these theories are Dunning's Model, Internationalisation Theory, Resource-Based

View, and Transaction Cost Economics (Boffelli et al., 2020; Ciabuschi et al., 2019; Foerstl et al., 2016; Fratocchi et al., 2016; Wiesmann et al., 2017). These theories have been used to explain the motivations of reshoring that include the drivers and barriers (Ciabuschi et al., 2019). Likewise, the same theories have been used to explain the decision-making and implementation of reshoring (Ciabuschi et al., 2019; Wiesmann et al., 2017). However, the fact that the reshoring strategies are applied through a long-time, there is a probability that changes may occur in the meantime due to environment uncertainties, and the reshoring strategy may need to be adjusted to the new emerging circumstances (Ellram et al., 2013; Tate et al., 2014). Yet, a rational strategy assumes the environment is predictable and the strategy can be intended and planned (Argyris 1977; Brown and Eisenhardt, 1998; Mirabeau & Maguire, 2014), and consequently acts as if the external environment is a minor input in the business strategy (Mirabeau & Maguire, 2014; Mintzberg et al., 1998).

Fourth, the literature is missing a theory-based conceptual framework that gathers the aspects of the reshoring process through a step-by-step guide, and that explains reshoring from a dynamical perspective. A study made by Benstead et al., (2017) suggested a conceptual framework based on the contingency theory that explains the reshoring process through the drivers, decision-making and implementation. This conceptual framework provides a step-by-step guide for reshoring; however, it does not include the barriers of reshoring and does not consider reshoring as a dynamical phenomenon but rather explain this strategy as being a stable trend that can be applied under a constant approach. In another hand, Boffelli et al. (2018) refined Bals et al. (2016) conceptual framework of the reshoring process and introduced a decision-making and implementation conceptual framework with steps. However, both Bals et al. (2016) and Boffelli et al. (2018) studies were conducted to provide future research avenues, and do not provide a clear understanding of the phases and steps of the reshoring process. Among their future research

suggestions, Boffelli et al. (2018) and Bals et al. (2016) suggested the future studies should explore the reshoring process from a dynamical perspective.

Hence, the current literature is still missing knowledge about the reshoring process through identifying the drivers, barriers, decision-making and implementation from a dynamical lens. Since this business strategy is growing in the future (Wienmann et al., 2017), it is necessary to fill the literature void and explain this phenomenon from an emergent perspective, considering the uncertainties of the environment where it happens (Bals et al., 2016, Mirabeau & Maguire, 2014). Moreover, a theoretical explanation is essential to support the reliability of the knowledge (Bals et al., 2016). And constructing a theory-based conceptual framework that includes the reshoring process components is fundamental to provide a practical methodology to help and support the future decision-makers in their reshoring strategies.

Therefore, to address the literature gap, this study suggests the reshoring process should be explained based on a dynamical perspective that can theoretically be supported by the emergent theory (Mintzberg & Waters, 1985; Mirabeau & Maguire, 2014). This theory reflects the assumption of this research, which is that reshoring is a phenomenon that emerges from a volatile environment, filled with uncertainties that requires a flexible approach (Mintzberg & Waters, 1985; Mirabeau & Maguire, 2014). Interpreting the reshoring drivers, barriers, decision-making process, and implementation phase from an emergent lens is different from the explicit decision-making. Explicit decision-making can be planned and predicted (Ansoff, 1980), as opposed to the process of the emergent reshoring strategy, events occur suddenly and unexpectedly, shaping the decisions into an emergent strategy (Mintzberg & Waters, 1985). The emergent, sudden, and unexpected events emerging due to environment uncertainties makes the decisions making and implementation of reshoring a difficult strategy to manage, especially through simple plans, and require an in-depth analysis and explanation (Mintzberg & Waters, 1985).

In addition to this, studying the reshoring process through the emergent theory can provide the decision-makers with the appropriate knowledge to support their reshoring strategies (Hartman et al., 2017). In reshoring decisions, the decision-makers are required to build a strategy through identifying the drivers and motivation, recognising the barriers and risks, and making an action plan that involves the decision making and implementation (Bals et al., 2016; Boffelli et al., 2018). The emergent theory (Mintzberg & Waters, 1985) has been demonstrated to provide the decision-makers with abilities to continuously adjust and adapt the decisions to the changing environment, especially in complex decisions such as reshoring (Mirabeau & Maguire, 2014). Moreover, to support the decision makers and practitioners build their reshoring strategies; a conceptual framework that includes the drivers, barriers, decision-making and implementation is necessary to cover the missing knowledge in the literature (Bals et al, 2016). How the reshoring drivers, barriers and decisions process are integrated into an emergent theory-based framework remains an opportunity this study seeks to address.

1.4 Research aim

This research aim is to examine the drivers, barriers, decision-making and implementation of reshoring. First, it is necessary to understand the push and pull factors associated with this strategy through descriptively assessing the drivers and barriers (Wiesmann et al., 2017). The decision-making and the implementation phase of the topic are the least explored in the literature (Barbieri et al., 2020), and for this reason they are of much interest to this research. As encouraged by Bals et al., (2016) the aim of this study is to empirically identify and explain the decisions-making and implementation steps while considering the dynamics of the environment to help the future managerial decisions reshore successfully.

Theoretically, the current literature has failed to explain how to reshore. This is perhaps because the current reshoring theoretical explanation is borrowing theories and models from other topics that are based on stability (Wiesmann et al., 2017). To date, a theoretical explanation of the

reshoring process that considers the dynamics of the environment is not available in the literature. Therefore, this study aim is to explain the reshoring process through the emergent theory (Mintzberg & Waters, 1985) that takes into accounts the dynamics of the environment in which reshoring occurs, and provides an understanding of the reshoring emergent strategy that is a flexible approach able to be adapted to the environmental uncertainties (Mintzberg & Waters, 1985).

From a practical viewpoint, the aim of this research is to design a conceptual framework for the reshoring process that includes the important reshoring phases, which includes the drivers, barriers, decision-making and implementation. Each phase is designed to provide information about the steps, and how to apply those steps in the reshoring strategy while considering the unpredictability of the environment. The goal of the conceptual framework is to assist and support practitioners, management, agencies, advisors and consultants in their future decision-making and implementations of reshoring to ensure successful relocation back to the UK.

1.5 Research objectives

The objectives of this research are the following:

- To investigate the factors that drive the manufacturers to move activities back to the UK.

The drivers are the push factors for reshoring. These are the pillars of the reshoring decisions (Wienmann et al., 2017). The objective is to identify and examine the factors from a dynamic lens based on the UK context.

- To identify the barriers of reshoring from the host countries to the UK.

The barriers are the pull factors for reshoring. The barriers represent a challenge for the reshoring strategies (Wiesmann et al., 2017). However, these are not well explored in the literature (Wiesmann et al., 2017). The objective is to identify and explain the barriers related to the UK market from a dynamic perspective.

- To examine the manufacturing reshoring decision-making and implementation phase of the reshoring business strategy from an emergent perspective.

The objective is to shed more light of the reshoring decision-making and implementation phase. The literature is lacking knowledge on how the reshoring strategy occurs; yet it is the most important phase (Wiesmann et al., 2017). This research purpose is to analyse the phases and steps of the decision-making and implementation of reshoring and to provide an in-depth explanation of how to apply those steps, while taking into consideration the uncertainties of the environment in which reshoring occurs (Bals et al., 2016).

1.6 Research questions

i) What are the reshoring drivers that lead UK manufacturing industries to relocate the business activities back home?

ii) What are the barriers to reshoring the business operation back to the UK?

iii) How is the reshoring decision-making processed, and how is it implemented in the UK?

1.7 Dissertation Outline

The remainder of the dissertation is organized as follows. *Chapter 2* reviews the extant literature, including reshoring, the theoretical approach, the drivers and barriers of reshoring, and a conceptual framework. *Chapter 3* elaborate the research methodology adopted in this study. *Chapter 4* presents the data analysis. This is followed by *Chapter 5* that includes a discussion and findings of the contribution of this research. Finally, *Chapter 6* provides the conclusions, limitations, and future research arena of this research.

Chapter 2

Literature Review

2.1 Introduction

The current literature explains the reshoring process from a rational perspective. However, reshoring happens in a dynamic economic, political, social, and regulatory environment (Benstead et al., 2017). This means that the reshoring strategy can be affected by many unpredictable and unexpected events that require continuous re-evaluations and adjustments in the different phases of the reshoring process. Eventually, this makes the rational explanation of reshoring not relevant as it stands for stability. In this chapter, the present research seeks to critically evaluate the existing knowledge of reshoring manufacturing in the literature to shed light on the controversial knowledge.

The chapter starts by explaining what reshoring means and the difference between the different terminologies used in the literature. It is important to have a clear view of the terminologies used to avoid confusion. This is because other terms such as “back shoring” and “near shoring” are used to address similar phenomena. The second section provides a theoretical discussion of the reshoring process. Several authors have attempted to explain reshoring through different theoretical approaches such as Barbieri et al. (2018), Di Mauro et al. (2018), Engström et al. (2018), Fratocchi et al. (2016), Joubioux & Vanpoucke (2016), and Wiesmann et al. (2017). Examples of such theories include the Internationalization Theory (IT), Eclectic Paradigm or OLI Model, Resource-Based-View (RBV), and Transaction Cost Economics (TCE), Ferdows Model, Dynamic Capabilities Theory, and Factor Market Rivalry. The third section gathers the drivers and barriers of reshoring listed in previous studies and critically evaluate them. The fourth and fifth sections examine the current literature in the decision-making process and implementation phase. This includes an analysis of the exit modes, entry modes, and re-integration to the home country.

2.2 Defining Reshoring

The reshoring phenomenon is a firm location decision that involves a reversal from a previous offshoring location (Ellram et al., 2013; Gray et al., 2013; Grappi et al., 2015). Reshoring can only occur if the offshoring of manufacturing has previously been applied as a strategic location decision (Gray et al., 2013). Though, it is necessary to understand what happens prior to reshoring, and to clarify the different terminologies used to have a complete view on this phenomenon (Grappi et al., 2015; Wiesmann et al., 2017). According to Baraldi et al. (2018), it is important to differentiate between the location decisions (offshoring vs reshoring) and the governance model (in-sourcing vs out-sourcing). Offshoring can be defined as the firm decisions to relocate parts or the whole operations to an overseas location (Gray et al., 2013). The term is often used when describing the relocation of business activities or operations to emerging countries such as Asia (Murat, 2013)." *Outsourcing* denotes a situation where a firm agrees with a third party so that they can perform some of the business tasks on the behalf of the firm (Ellram et al., 2013).

For decades, firms have applied the offshoring and outsourcing practice as a strategic decision to achieve specific business goals such as competitive advantage through cost differentiation, access to knowledgeable and talented employees, and access to international markets (Contractor et al., 2010). A change in one or more advantages of offshoring such as wage rates and logistics costs, and/or fall in expectation may lead to reshoring location decisions (Ellram et al., 2013; Grappi et al., 2015; Gray et al., 2013). In similar veins, Murat (2013) explains that when an offshoring firm is faced with complications, the managerial decisions of relocation are used to resolve the problem. Therefore, reshoring the manufacturing activities from the host country is one of the strategic choices available for the firm (Ciabuschi et al., 2019; Joubioux & Vanpoucke, 2016; Murat, 2013). While offshoring refers to moving production activities from where the firm

headquarters is located to a foreign country, reshoring means moving the production back to the country where the firm headquarters are located (Wiesmann et al., 2017).

To define the reshoring phenomenon, this study has collected and gathered a list of definitions and compiled them in *Table 1*. The term reshoring is used in literature to indicate different ideas (Barbieri et al., 2018; Stentoft et al., 2018; Wiesmann et al., 2017). According to Wiesmann et al. (2017), a clear and specific definition is not available in the literature. However, many papers agree that reshoring is primarily a location decision, and this phenomenon refers to the movement from the previously offshored manufacturing activities back to the home country (Barbieri et al. 2018; Wiesmann et al., 2017). According to Barbieri et al. (2018), three factors have impacts on the definition of reshoring:

- **Countries of offshoring production**

Several papers such as Albertoni et al. (2015), Barbieri et al. (2018), Booth (2013), Ellram et al. (2013), Grappi et al. (2015), and Martínez & Merino, (2014) refer to bringing the production and manufacturing back to the home country when defining the term reshoring. A more precise definition is developed by Barbieri et al. (2018) that refer to reshoring as MNCs and SMEs' complete or partial reversal of offshored manufacturing back to the parent country. A different viewpoint is proposed by Tate et al. (2014) who defined reshoring as relocation of manufacturing to a more attractive offshore location or near the home locations (Fratocchi et al., 2014). In line with Fratocchi et al. (2014), this study views Tate et al. (2014) definition referring to nearshoring and not reshoring. Also, to avoid confusion, other terms like back shoring (Ellram, 2013; Gylling et al., 2015), and right shoring (Abbasi, 2016; Joubioux & Vanpoucke, 2016; Tate, 2014; Tate & Bals, 2017) have been introduced by scholars to differentiate between the different location decisions, as shown in *Table 1*.

- **Type of activities offshored/reshored**

The current literature shows that reshoring the firm manufacturing is related to the production activities and business operations (Albertoni et al., 2015; Ellram, 2013; Martínez & Merino, 2014). Barbieri et al. (2018) study specifies that the firm manufacturing activities can either be full or partial. Other scholars highlight that the reshoring operations can be seen from a value chain perspective (Gray et al., 2013; Moradlou et al., 2017; Stentoft et al., 2016; Zhai et al., 2016), or services such as IT (Albertoni et al., 2017; Margulescu et al., 2014), or functions (Gylling et al., 2015).

- **Governance modes embraced while offshoring/reshoring**

According to Arlbjorn and Mikkelsen (2014), the decisions about the business governance modes are with no doubt independent of the reshoring decisions. Manning et al. (2008) argues that the firm offshoring strategy employs the outsourcing governance modes. Likewise, Bals et al. (2016) suggest that insourcing may be combined with the managerial decisions of manufacturing reshoring. The ambiguousness of reshoring and insourcing originates from their reversal – that are interconnected – offshoring and outsourcing (Barbieri et al., 2018).

However, the commonalities of reshoring and insourcing are still not empirically confirmed (Wiesmann et al., 2017). Thus, it is essential to differentiate between the relationship of offshoring and outsourcing and their opposites, reshoring and insourcing (Wiesmann et al., 2017).

Table 1: Theoretical definition of relocation of firms manufacturing activities (Continues to next page)

Phenomena	Definition	Authors
Reshoring	"Reshoring indicates a generic change of location concerning a previous offshore country."	Fratocchi, L. et al., (2014). *When manufacturing moves back: Concepts and questions.*
	"Reshoring is defined as the company decision to relocate its activities back to the home country regardless of the ownership of the activities relocated"	Grappi S., Romani, S. and Bagozzi , R.P.(2015). *Consumer stakeholder responses to reshoring strategies*
	"Reshoring is fundamentally a location decision … it is defined as bringing manufacturing back home from a current location	Gray, J. V., Skowronski, K" Esenduran,, G" & Rungtusanatham (2013). *The reshoring phenomenon: What supply*

	that is, de facto, not home." "A company decision to bring production or sourcing back to their home country" "Transfer of manufacturing activities back to the country of the parent company" "Bringing back the manufacturing activities to the home country." In the past few years, both large multinational companies (MNCs) and numerous small enterprises operating in different industries have decided to (at least partially) reverse their previous manufacturing offshoring decisions and have brought their production activities back home, independently of the adopted governance model	*chain academics ought to know and should do*. Booth, T. (2013). "*Special report: outsourcing and offshoring: here, there and anywhere: The Economist* Martínez-Mora, C. & Merino , F., (2014). *Offshoring in the Spanish footwear industry: A return journey?* Albertoni, F. et al., (2015). *Returning from Offshore: What Do We Know?* Barbieri, P. et al., (2018). *What do we know about manufacturing reshoring?*
Back-reshoring Back-shoring	"To denote the decision to relocate in the firms' home country production or supply previously offshored." "Bringing manufacturing back home." "Re-concentration of parts of production from own foreign locations as well as from foreign suppliers to the domestic production site of the company" "*Reshoring*" or "*back-shoring*" have been defined in broad terms as "moving to manufacture back to the country of [the firm's] parent company." "Repatriation of activities or functions from another country to be carried out in-house by a company in its home country."	Fratocchi, L. et al., (2014). *When manufacturing moves back: Concepts and questions* Gylling, M. et al., (2015). *Making decisions on offshore outsourcing and backshoring* Kinkel, S. and Maloca, S. (2009). *Drivers and antecedents of manufacturing offshoring and backshoring – a German perspective* Ellram et al., (2013). *Offshoring and Reshoring: An Update on the Manufacturing Location Decision*. Gylling, M. et al., 2015. *Making decisions on offshore outsourcing and back-shoring: A case study in the bicycle industry*.
Near-shoring	"Production is relocated to the company home regions." "Nearshoring refers to locating a manufacturing plant within one's region."	Fratocchi, L. et al., (2014). *When manufacturing moves back: Concepts and questions*. Ellram, L.M., Tate, W.L. and Petersen, K.J., 2013. Offshoring And Reshoring: An Update On The Manufacturing Location Decision. *Journal of Supply Chain Management,* **49**(2), pp. 14-22.

The diverse definitions presented in *Table 1* show that scholars define the reshoring phenomenon based on different aspects. Some scholars base their definition on the nearness to the home company; others emphasise the ability to relocate to closer markets and demands (Wiesmann et al., 2017). As stated by Wiesmann et al. (2017), the definition is still under development, and a

coherent meaning of the term reshoring is not yet available. However, the literature agree that reshoring is a location decision and can only occur if offshoring has previously been applied as a strategic location decision (Gray et al., 2013). However, the literature agrees that back shoring, back reshoring, near-shoring, in-shoring, and onshoring location decisions are too only occurring if offshoring happened previously. Moreover, some terms such as back-shoring and back-reshoring have been defined exactly as reshoring (Fratocchi et al., 2014; Gylling et al., 2015). Thus, to avoid any confusion, this study adopts the term reshoring throughout the study, since it is the commonly used term among academics (Ciabuschi et al., 2019). In addition to this, this research follows the definition of reshoring that describe this phenomenon as the relocation of any manufacturing activities back to the home country, regardless of the type of operation and the governance structure (Albertoni et al., 2015; Bals et al., 2016; Barbieri et al., 2018; Booth, 2013; Ellram, 2013; Gray et al., 2013; Jahns et al., 2006; Wiesmann et al., 2017).

2.3 Offshoring and Reshoring: Theoretical view

The theoretical foundation of reshoring has been based on assumptions that this phenomenon is stable (see: Boffelli et al., 2020; Ciabuschi et al., 2019; Foerstl et al., 2016; Fratocchi et al., 2016; Wiesmann et al., 2017). The existing literature explains why reshoring is happening through theories and models such as Internationalisation Theory, Resourced-Based-View (RBV), OLI Model, Transaction Cost Economics (TCE), Ferdows Model and Factor Market Rivalry, borrowed from other topics more specifically related to foreign investment and internationalisation (Albertoni et al., 2017; Mugurusi & de Boer, 2014). The motivations – drivers and barriers of reshoring – are explained from a stable perspective, and combining the models above provides a rational understanding of the phenomenon. According to Tate et al. (2014), the motivations may alter if the reshoring process takes a longer time, which is casualty for the reshoring cases. However, none of the above theories account for the dynamics of the reshoring strategy, and an explanation of the drivers and barriers taking into consideration the environment uncertainties is still missing in the literature.

The same theories have been used as an attempt to explain how reshoring occurs (Barbieri et al., 2018). This includes the decision-making process and implementation phases of reshoring (Benstead et al., 2017). According to Barbieri et al. (2018), many studies mentioned the OLI Model, Internationalisation Theory, RBV and TCE as theories that explain the process of reshoring, but these theories do not explain how this phenomenon occurs through an understanding of the phases and steps involved (Wiesmann et al., 2017). Moreover, the current understanding perceives reshoring decision-making and implementation is based on stability, which does not consider the environment uncertainties. The rational knowledge provides a stable strategy unable to be adjusted; however, strategies applied in a dynamic environment necessitate an approach that can be continuously adapted to the changing environment (Mintzberg & Waters, 1985). Thus, this section discusses the available knowledge and critically analyses the current theoretical foundation of reshoring.

First, to be able to understand the reshoring trend in depth, it is vital to have a clear view of its reverse, namely offshoring (Wiesmann et al., 2017). Offshoring is defined as moving the business activities outside of the home country boundaries, where goods and services are sourced and manufactured in a foreign country instead of the home country (Munjal et al., 2018). The aim of this location strategy is to gain competitive advantages through accessing international markets (Mohiuddin & Su, 2013). The activities offshored can range from IT services, textile and apparels to medical research and development (Niccolò & Joan, 2016). Usually, an offshoring business manufacturing is relocated to low-labour cost locations such as Eastern Europe, Central Europe, and South-East Asia (Bailey & De Propris, 2014). For years, the offshoring trend was commonly adopted in different manufacturing activities and sectors to gain competitive advantages (Dunning, 1988; Holcomb & Hitt, 2007; Mccarthy & Atthirawong, 2003). This is because business manufacturing and production have changed enormously due to globalization, leading to an increase in competition in the market (Wiesmann et al., 2017) and putting firms under immense pressure to revise their location strategies (Wiesmann et al., 2017; Fraering & Prasad, 1999).

So, the reshoring phenomenon requires reversing and bringing those offshore business operations and manufacturing from the host country back to the home country (Ellram et al., 2013; Gray et

al., 2013; Wiesmann et al., 2017). The reverse of the offshoring decisions is usually caused by a change or a complete fall in the expectation of the firm (Wiesmann et al., 2017). This is because the global market is a dynamical environment that changes unexpectedly (Mintzberg & Waters, 1985). The complexity of the location decision makes offshoring and reshoring a multifaceted phenomenon that needs to be explained through a theoretical foundation (Slepniov & Waehrens, 2008). In similar veins, Hätönen & Eriksson (2009) and Slepniov & Waehrens (2008) claimed that to build a good understanding of the location decisions, and therefore the reshoring trend, it is important to have a theoretical understanding (Grappi et al., 2015). It should be noted that the reshoring theoretical understanding available in the literature is explained through digging into its reverse offshoring, as explained below (Ciabuschi et al., 2019; Di Mauro et al., 2018; Engström et al., 2018).

Thus, several theories including the Internationalisation Theory, Resourced-Based-View (RBV), OLI Model, Transaction Cost Economics (TCE), Ferdows Model, Dynamic Capabilities Theory, and Factor Market Rivalry have been commonly adopted in explaining the internationalisation strategies, location decisions, manufacturing offshoring, and therefore manufacturing reshoring (Albertoni et al., 2017; Mugurusi, & de Boer, 2014). The Internationalization Theory and eclectic paradigm - also called OLI Model - were primarily founded to explain the firm foreign investment (Dunning, 1980; Buckley & Casson, 1976), and authors such as Ciabuschi et al. (2019), Di Mauro et al. (2018), Engström et al. (2018), Joubioux & Vanpoucke, (2016), and Martínez-Mora & Merino, (2014) have stated that the internationalization theory and OLI model have been found to be applicable in location decisions including the offshoring and reshoring phenomenon.

- **Internationalisation theory**

The internationalization theory is a firm-level theory developed to explain the international expansion of a firm by providing an understanding of the entry mode “how” and reasons behind penetrating the foreign markets “why” (Rugman, 2010). According to Ellram, choosing either to expand production in the home country or offshoring to foreign countries is a critical choice that needs to be built upon deep research and knowledge (Ellram, 2013). This means the firm

reshoring decisions require the decision-makers to have a clear understanding on "why" and "how" to invest in foreign markets (Rugman, 2010). The internationalisation theory explains the "why" throughout the Knowledge-Based Advantages (KBA) and Firm-Specific Advantages (FSA). The internationalization theory suggest that foreign investments allow the firm to gain direct control over knowledge-based resources, which helps the business to exploit the advantages of a location while minimising the cost of ownership in the foreign market (Ciabuschi et al., 2019). In the same vein, Fratocchi et al. (2016) support this view by suggesting that for the offshoring decision to be effective, the firm must have an efficient vision on the expected control over knowledge, resources, capabilities, firm-specific advantages, and raw materials to ensure a competitive advantage in the host country. Moreover, the internationalisation theory suggests that the knowledge-based advantages can be hierarchical strategies designed to predict and overcome scenarios of market failure (Fratocchi et al., 2016). According to Fratocchi et al. (2016), this can be achieved using a rational evaluation of costs that can be explained through the Transaction Cost Economics (TCE). Other types of efficiency-based advantages can be categorised as human resource, management skills, organization culture, and brand image (Fratocchi et al., 2016). According to Fratocchi et al. (2016), these can be assessed through a rational assessment of resources using the Resource-Based-View (RBV).

In addition to this, the internationalisation theory explains how offshoring occurs through providing an understanding of the appropriate entry modes to penetrate the foreign market (Rugman, 2010). The theory suggests that the firm may offshore to foreign market through Foreign Direct Investment (FDI) or other options like alliances, joint ventures, or licensing (Rugman, 2010). In the location decisions, the entry modes are very important because it allows identifying the firm ownership and control over the market (Rugman, 2010). In this sense, the internationalisation theory answers questions of what entry modes provide more control over the market and which ones are riskier (Rugman, 2010).

Thus, the internationalisation theory explains the reshoring decisions happen because of a change in the offshoring manufacturing operations caused by a global economy, politics, and business laws (Casson, 2013). In the same vein, Buckley and Casson (2011) research affirms the firm-specific advantages and the location influence each other. Similarly, Martínez Mora and Merino

(2014) study proves that the changing costs, resources, and capabilities in the foreign market influence the location decisions. This means that from an internationalization theory perspective, decisions on reshoring can be driven by changes in the host country characteristics such as the economy, politics, and laws (Casson, 2013), which negatively affects the business environment (Fratocchi et al., 2016), and the ownership advantages (Martínez-Mora & Merino, 2014). Hence, the internationalisation theory shows that reshoring emerges from unpredictable events related to changes in the dynamic environment.

The internationalisation theory is limited to explaining the "how" through the entry modes of reshoring (Rugman, 2010). In line with Wan et al. (2019), this study views the entry modes are important and are therefore considered in this study, but insufficient because the reshoring requires many steps in the decision-making and implementation phase such as the disintegration from the host country "exit modes", then the reintegration in the home country "entry modes", and relocation in the home country (Bals et al, 2016). Also, the internationalisation theory mainly supports firms into penetrating foreign markets through ownership (Casson, 2013). This is usually implemented when the firm is in a position of strength and wants to gain more competitive advantages and expand into other markets (Casson, 2013). However, this is not the case of the reshoring strategies, the firm is usually affected by the environment unpredictability making it in a vulnerable situation and requiring the company to maintain operations and revenues whilst implementing difficult decisions to return to the home country (Wiesmann et al., 2017).

Thus, the above discussion shows that the internationalisation theory can be used to explain the offshoring location decision because it provides an understanding of ownership through the entry modes, which explains the "how" (Casson, 2013). The theoretical explanation of the "why" show the offshoring is interconnected with cost, resource, and firm-specific advantages (Casson, 2013). Concerning the reshoring decisions, the IT theory clarifies the main reasons for reshoring, which is related to a change in the environment of the host country. However, the internationalisation theory does not provide an understanding of how the decision-makers can approach the reshoring process as a strategy that involves phases and steps. In addition to this, the theory does not explain how to apply this strategy in a dynamical and unpredictable environment.

- **OLI Model**

The OLI model, also known as the Dunning (1998) paradigm, was initially designed to facilitate the internationalisation from an eclectic paradigm. According to Eden and Dai (2010), the OLI model is considered an essential paradigm in understanding the source, pattern, level, and evolution of offshoring manufacturing activities. This model shows that before a firm consider going international, three significant advantages need to be internally existent (Dunning, 1998):

i. Ownership advantages: these are assets owned by the company. If the company finds an effective way to benefit from those assets while going international, it is an efficient way to save costs and access resources (Dunning, 1998).
ii. Location advantages: this is considered an external advantage for the company going global. The "where" may be prompted by success or failure depending on four factors: resources, market, efficiency, and assets (Dunning, 1998).
iii. Internationalisation advantages: this includes advantages that involve two important variables, logistics and ownership. Ownerships are important, as mentioned above, but the access and transfer cost of the assets highly determines the success of the operations (Dunning, 1998). The logistics are important in twofold; it affects the company internal operations and influences the consumer experience.

The OLI model is considered an industry level-analysis intentionally structured to answer different important questions related to the internationalisation of a firm (Dunning, 1998). According to Eden (2003), the OLI paradigm provides a method that contains a set of variables necessary to answer those questions and understand the types of foreign production activities (Eden, 2003). In this context, the OLI model suggests that the ownership seeking advantages are designed to clarify questions linked to "why", while location advantages answer questions related to "where", and internationalization advantages explain the "how" (Dunning, 1998). The theory highlights that the ownership, location, and internationalisation advantages are considered equally needed to achieve a successful Foreign Direct Investment (FDI) and therefore necessary to become Multi-National Enterprises (MNEs), which include location decisions through offshoring (Dunning, 1977; Dunning, 1995; Dunning, 1998). In similar veins, Dunning model

explains the offshoring decisions should be based on the firm capability to create value through ownership advantages, location advantages, and internationalisation advantages (Dunning, 1998). Once the firm has these capabilities, the offshoring is applied by transferring the ownership advantages to the foreign markets, in a location where these activities can be turned into a profitable product (Eden & Dai, 2010). In other words, the "why" is explained by sending ownership advantages in markets where more advantages could be gained (Dunning, 1998). In another hand, the "how" is explained by transferring the ownership advantages from the home country to the foreign market instead of selling or leasing them, then exploiting those ownerships, and therefore benefiting from the internationalisation advantages (Dunning, 1977; Dunning, 1995; Dunning, 1998). Unlike the internationalisation theory, the OLI approach does not explain the entry modes and hence how to penetrate a market abroad (Eden & Dai, 2010). In line with Eden & Dai, (2010), this study points out to the fact that Dunning paradigm explanation of the "how" through turning the ownership into internationalisation advantages is not enough. However, studies such as Ancarani et al. (2015), Albertoni et al. (2017), Ellram et al. (2013), and Wiesmann et al. (2017) highlight that besides the weak explanation of the OLI model to the "how", the most important feature of this model in location decisions is the location advantages, which have four characteristics:

i. Resource advantages: This involves the accessibility of infrastructure, materials, and suppliers.
ii. Marketing advantages: Include addressing costs of market entry, economic law, and access to talented workers and suppliers.
iii. Efficiency advantages: Address the manufacturing and labour cost factors, as well as trade barriers.
iv. Asset advantages: Relates to the know-how, marketing efficiency and economies clusters.

Thus, based on Dunning paradigm, reshoring manufacturing to the home country can be explained by a change in the location advantages (Ellram et al., 2013) and/or a fall or decline of ownership and internationalization advantages (Dachs & Kinkel, 2013) that were initially the foundation of the offshoring decisions (Fratocchi et al., 2016). For example, an increase in

competition over resources, an increase in labour prices, transaction costs, and logistic cost can have a negative impact in driving the reshoring decisions. Hence, similarly to the internationalisation theory, the OLI model provides an understanding on the reasons why reshoring happens, which is a change of the ownership, location, and internationalisation advantages (Dunning, 1998). However, this model does not explain how the reshoring decisions occur by providing an understanding of the decision-making and implementation of reshoring from a dynamical perspective. Also, the model does not provide the decision-makers with practical information and guidance on how to apply the reshoring process.

- **Transaction Cost Economies (TCE) & Resource Based View (RBV)**

According to Ellram (2013) and Martinez-Mora and Merino (2014), the TCE is a commonly used approach in business strategic management decisions of manufacturing locations, and therefore offshoring and reshoring. It provides valuable insight on the governance structure (McIvor, 2013) and the make-or-buy decisions (Martinez-Mora & Merino, 2014). In offshoring location decisions, the TCE is believed to explain the strategic decisions of the relocation from developed countries to developing countries from cost advantages perspective (Ellram, 2013). However, the developing countries that have previously been seen as a potential positive opportunity for long-term cost savings may become a less attractive environment due to changes interconnected with laws, politics, and economics (Canham & Hamilton, 2013). In most cases, these changes negatively affect the business cost and profit, and therefore a revision of location decisions (Kinkel & Maloca, 2009; Martínez-Mora & Merino, 2014).

Thus, the TCE explains the reshoring phenomenon by being an emerging strategic decision caused by changes in the supply chain coordination and transaction costs (Kinkel & Maloca, 2009; Martínez-Mora & Merino, 2014). In this context, many studies propose using the transaction cost theory as a starting point and then associate it with other theories to support the managerial decisions in relocations back to the home country (Brouthers et al., 2008). Studies such as Fratocchi et al. (2016), McIvor, (2013), Williamson, (2008), and Wiesmann et al. (2017) suggest the TCE could be combined with RBV to explain the reshoring phenomenon for a

complete theoretical understanding. More precisely, the TCT theory compares production costs between two or more locations (Fratocchi et al., 2016). On the other hand, RBV explains how to gain competitive advantage through resources (Wiesmann et al., 2017). From an RBV perspective, reshoring manufacturing to the home country is caused by the firm not being able to exploit or create value from the resources available in the host country (Canham & Hamilton, 2013). An example of this is the relocation of manufacturing back to the home country due to the "Made In" concept (Ciabuschi et al., 2019).

According to studies such as Kinkel & Maloca (2009), Martínez-Mora & Merino (2014), and Wiesmann et al. (2017), TCE and RBV provide a better understanding of why reshoring happens comparing with OLI and internationalisation theory. In similar veins, Fratocchi et al. (2016) suggest that TCE and RBV are sufficient to fully explain the "why" and "how" of the reshoring phenomenon based on a rational evaluation of costs and resources. However, this study points out to the facts that the TCE and RBV, limited to an analysis of costs and resources, does not take into consideration the environment uncertainties. In addition to this, Gray et al. (2017) highlights that reshoring decisions based on a full evaluation of costs and resources is time and energy consuming. Though, the adversities of the environment in which reshoring occurs that may affect the rational evaluation of costs and resources, making these decisions inefficient and ineffective (Gray et al., 2017). In addition to this, the TCE and RBV do not explain the decision-making and implementation process of reshoring through its several phases and steps, and thus do not provide any information about how to reshore (Barbieri et al., 2018).

Other existing theories have been mentioned in reshoring related articles as an attempt to contribute to the offshoring and reshoring theoretical debate, and these are the Uppsala Model, Dynamic Capabilities Theory, and Factor Market Rivalry.

- **Uppsala Model**

The Uppsala Model (UM), alike the OLI paradigm and internationalisation theory, is founded to explain the process of internationalization (Johanson & Vahlne, 1990; Johanson & Vahlne, 2013). The UM have been used by authors such as Ciabuschi et al. (2019), Barbieri et al. (2018), Fratocchi et al. (2016), and Wan et al. (2019) to explain the motivations of reshoring. The UM is

categorised into two dimensions: the change variable and the state variable (Johanson & Vahlne, 1990; Johanson & Vahlne, 2013). The change variable includes resources, learning, and innovation & development (Johanson & Vahlne, 2013). In another hand, the state variable characteristics are related to knowledge, opportunities, and network (Johanson & Vahlne, 2013). The change variable and state variable are interconnection in a way that one completes the other (Johanson & Vahlne, 2013). This means that the decision-making of location decisions should be founded on expected positive results based on the firm experience, knowledge, and network (Johanson & Vahlne, 2013). While learning depends on innovation, research, and building trust, the relationship between the change variable and the state variable is fundamental for the firm performance (Johanson & Vahlne, 2013). Similarly, to the OLI model and internationalisation theory, the Uppsala model highlights that the operational and dynamical capabilities in the state variable requires the firm to have good control and ownership before their internationalisation (Johanson & Vahlne, 2013). In addition to this, the firm should consider the potential risks that they may face in their strategies (Johanson & Vahlne, 2013). Therefore, the reshoring location decision is explained by an alteration in the change variable or the state variable elements, which favour the return home (Ciabuschi et al., 2019). Moreover, the Uppsala Model point out to the importance of having strong network partners to achieve competitive advantages (Ciabuschi et al., 2019; Johanson & Vahlne, 1990; Johanson & Vahlne, 2013). In line with this view, Baraldi et al. (2018) suggests that the firm network and capabilities, including consumers and suppliers are crucial to achieve competitive advantages in foreign investments. Moreover, the firm previous network in the host country and existing network in the home country plays a fundamental role in the success of the reshoring strategies (Baraldi et al., 2018). This is a crucial point for the firm to consider because the offshoring firms' might have lost their home country networks while in the host country, which makes reshoring back to the home country more challenging (Baraldi et al., 2018). This is because the manufacturing supply chains are needs strong networks and trusted relationships (Baraldi et al., 2018). For this reason and in line with Baraldi et al. (2018), this study suggest that the Uppsala Model point out to an essential element that should be taken into consideration in the reshoring decision-making.

- **Dynamic Capabilities Theory**

The Dynamic Capabilities Theory is defined as the integration, reconfiguration, gain, and release of resources within a firm (Wiesmann et al., 2017). This theory explains the firm location decision through the resource capabilities (Wiesmann et al., 2017). Specifically, the dynamic capabilities theory provides an understanding on the choice and structuring of new resources depending on market evolution and changes (Eisenhardt & Martin, 2000). This theory closely ties with RBV (Wiesmann et al., 2017). Both theories claim that the firm resources and assets are fundamental for creating a sustainable competitive advantage (Wiesmann et al., 2017). Moreover, the dynamic capabilities theory fulfils a perceived shortcoming of the RBV. Unlike the dynamic capabilities' theory, the RBV lacks clarification on how a firm can achieve competitive advantages through resources in a dynamical and volatile market (Eisenhardt & Martin, 2000). However, the dynamic capabilities theory is believed to provide an understanding on how to reshore through integrating, refining, gaining and releasing resources to adapt to changing markets (Wiesmann et al., 2017). Therefore, this study views this theory as appropriate to explain the motivations of the reshoring decisions only, from a resource perspective, especially that reshoring occurs in a dynamical environment. Though, the theory characteristics may be considered in the reshoring decision in one of the steps to identify the resources from a dynamic perspective. Nevertheless, this research points out to the fact that the dynamic capabilities theory does not explain the reshoring through the phases and steps involved in the decision-making and implementation.

- **Factor Market Rivalry**

The Factor Market Rivalry perspective was first introduced by Tate et al. (2014) in their location decisions article. The factor market rivalry theory claims that firms' strategic offshoring decisions often give crucial attention to the supply chain advantages (Ellram, 2013). The risk of shortage or supply interruption can cause an increase in costs, and thereby a decrease in profits (Tate et al., 2014). This happens when competition increases in the market, causing scarce resources (e.g., human labour, raw materials, and logistics) that eventually increase the business costs (Tate et al., 2014). Tate et al. (2014) explain that when these problems arise, the firm is

obliged to revise the location decisions and choose other markets. This approach consists of moving manufacturing from low-cost countries to different low-cost countries, which according to Tate et al. (2014) is the definition of reshoring. However, studies such as Ellram, (2013) and Wiesmann et al. (2017) claim that moving from low-cost countries to different low-cost countries should be considered an offshoring location decision because the relocation is still outside of the home country territory. So, the factor market rivalry explanation is limited to the relocation from an offshoring host country to another offshoring host country, which the research clarifies through the increase in competition over resources. Another limitation of this theory is it only considers moving to other low-cost countries, which is not the case for reshoring business operations to the home countries that usually involves returning from emerging countries to developed countries.

2.4 Drivers of Reshoring

The reshoring location decision emerges from a change in the environment where the firm operates (Boffelli et al., 2020). The environmental changes in the host market lead to push factors for reshoring. Though, to better understand the reshoring process, the first step is to identify the drivers causing reshoring decisions (Moretto et al., 2019). According to Boffelli et al. (2020), the reshoring drivers are fundamental because they are the foundation of the relocation decision-making. This is because these drivers represent the factors pushing the firm to return back to the home country (Wiesmann et al., 2017). Hence, this section critically evaluates and discusses the drivers' factors available in the literature.

Table 2: Drivers of Reshoring

Drivers of Reshoring					
Heterogeneous factors					
Article	**Perspective**	**Research Methods**	**Country**	**Drivers/Factors**	**Conclusions/Limitations**

Drivers and antecedents of manufacturing offshoring and backshoring—A German perspective. (Kinkel & Malorca, 2009)	X	Different sectors Qualitative research through semi-structured interviews on 39 manufacturing industries & quantitative using the "German Manufacturing Survey."	Germany	Flexibility Quality Coordination cost Infrastructure Availability of qualified personnel	Drivers are vague and listed without classifications. Article limited to Germany. Future research calls into replicating this research in other countries.
Offshoring and backshoring: A multiple case study analysis. (Di Mauro et al., 2018)	Internationalization Model, RBV, Dynamic Capabilities, TCE, Resource Dependence Theory (RDT) Contingency theory	Case study based on four manufacturing firms in textile footwear.	Italy	Termination of supplier relationships Change in firm's business strategy (e.g. creation of new products) Coordination costs Correction of earlier managerial mistakes (e.g. bandwagon effect) Customers' gratitude and willingness to buy Customs duties for re-import Demand changes and volatility in the home/host country Emotional elements (e.g. loyalty) Energy costs and shortage Environment and social sustainability Excessive paperwork/Administrative costs Exchange rate risk Firm's global reorganization Freight costs Global supply chain risks High inventory levels Home labour market flexibility Increased home country productivity Labour costs gap reduction Lack of infrastructure in the host country Lack of skilled workers in host country and availability at home country Logistics cost Loss of innovation potential Loss of know-how in the host country/IP risks Made-in-effect National subsidies for relocation Need to increase customer satisfaction	The article has listed the motivations without classifying them. The qualitative methods used through in-depth interviews allowed for a deep analysis of the topic. However, this article is limited to the Italian footwear industry. Future research calls into replicating the study in other locations and other sectors.

				Payment terms Penalties for late orders Poor manufacturing structure in the host country Product/Process/Organizational innovation Production and delivery time impact Psychic distance Purchase order rigidity Raw material availability Redefinition of the global supply chain Reduced operational flexibility Reduced responsiveness to customer demand and customer proximity Technology clusters in the home country, and spillover benefits. The total cost of ownership Union pressure at the home country Untapped production capacity at home/capacity bottleneck in the host country.	
Towards right-shoring: a framework for off-and re-shoring decision making (Joubioux & Vanpoucke, 2016)	OLI, TCE	Qualitative research methods through In-depth interviews Six case studies in Aeronautic industry	US	Transportation costs Pecuniary costs (derived from the lead times in shipping) Inventory costs Value chain resilience Risks of disruptive events Loss of flexibility Less reliability in production Increasing production costs in Asia	The drivers are not classified. This research is limited to offshoring through outsourcing. Thus the motivations are not based on in-house offshoring. Similarly, the motivations are based on Aeronautic company that offshored three host countries: China, India, and Taiwan.
Backshoring of production in the context of a small and open Nordic economy. (Heikkilä et al., 2018)	X	Survey questionnaire	Denmark Finland Sweden	Flexibility Quality Lead-time Logistics cost Access to skills and knowledge Other cost Proximity to R&D and product development Focus on core areas Access to raw materials Production close to or in the market Access to technology Labour cost Risk diversification Changes in the currency exchange rate Time-to-market Avoid investments in new equipment Shortage of qualified personnel Country-	This research is not theory-based. The motivations are not classified. The authors have specified the study's limitations, noting that the topic is a new phenomenon and the number of cases of off-reshoring is small, which limited the number of respondents and obstructed the use of advanced software for data analysis. The future research avenues are to investigate a single-country sample analysis

				specific conditions Requirement from customer Trade barriers Follow industry practice	when more cases of reshoring happen in the future.
Institutional and strategic operations perspectives on manufacturing reshoring. (Srai, Jagjit Singh & Ané, Camille, 2016)	X	Qualitative research methods through in depth-interviews.	UK and France	Ability to deliver good quality products Location branding for quality image Location branding for product traceability Energy costs Ease of automation Local incentives Labour productivity Currency fluctuations Taxes and import duties Reduced hidden costs Reduced costs of transportation Reduced costs of inventory Reduced costs of communication Reduced administrative costs Reduced costs of RM Better payment terms Downsizing and rationalisation Benefit from economies of scale Vertical integration Reduced inventory management Growing market Better customer services Technology clusters and spillover benefits Defining a new value proposition Quicker product development Quicker product development Quicker replenishment Proximity to customers Reduced carbon footprint Shorter supply chain Diversification of the supply base Reduced amount of technical issues Political stability Local security IP protection Absence of risk of natural disasters Increased certainty around delivery times Better traceability of products Access to local know-how Privileged relationships or networks Psychic distance Availability of skilled workforce	The drivers are listed without classifications. Not theoretically explained. The in-depth analysis has provided a good insight into the decision-making process of reshoring firms. The study is limited to France and UK.

Reshoring drivers and barriers in the Swedish manufacturing industry. (Engström, Sollander, Hilletofth & Eriksson, 2018)	OLI, TCE, RBV	Qualitative approach Semi-structured interviews Case study on four Swedish manufacturing firms	Sweden	Firm-specific Customer Capacity Ownership Miscalculation Transportation & logistics Customer & market Home country Automation Capacity Domestic goodwill Sustainability Branding Political incentives Global environment Global economy Global politics Host country Economic growth Quality issues Risk management Labour market Supply chain Distance Research & development	The motivations are listed without categorisation. The qualitative approach used in this article allowed an in-depth analysis that contributed to identifying more drivers. The article is limited to the Swedish industry, and the findings cannot be generalised into other countries. Also, it is limited to the manufacturing sector, and the service sector is not included.
Reshoring: A strategic renewal of luxury clothing supply chains (Robinson & Hsieh, 2016)	Supply chain Model through "make or buy."	Semi-structured interviews	UK	"Made in Britain" effect Flexibility Shorter lead-time Control over production, marketing, and distribution Lowers logistics costs Streamlining safety Compliance auditing Managing product recalls Minimising counterfeiting risks Reduce the firm's carbon footprint	The drivers of this article are listed without classifications. This article is limited to the Burberry case, making the findings only apply to the high-end luxury market. The case study of Burberry shows that reshoring back to the UK can result in better outcomes for luxury companies as it increases control, production, and customer satisfaction through the "made in Britain" effect. This research is limited to the luxury clothing sector in the UK.
Near-reshoring your supplies from China: A good deal for financial motives too. (Fabienne Fel & Eric Griette, 2017)	X	Qualitative research through-depth-interviews in Belgium, Switzerland, The Netherlands, Germany, and the UK.	France	Labour cost reduction Euro fall against US dollar Change in firm's strategy Correction of managerial mistake	Motivations are vague and not classified The study is limited to companies that offshored to China from France. The contribution of this research is that motives of reshoring from China back to France are driven by changes in financial terms with China, a change in corporate

					strategy, mistake corrections, and improving customer satisfaction.
Offshoring in the Spanish footwear industry: A return journey? (Martínez-Mora & Merino, 2014)	TCE, OLI, RBV	Semi-structured interviews Footwear sector	Spain	Increase in domestic production Increase in the number of new collections Failures in market strategy To reduce delivery times	This article listed the drivers broadly. The study's findings contribute to adding knowledge to the literature in reshoring strategies in the footwear industry in Spain. The reshoring strategies can be explained by three main reasons in the footwear industry. (1) the volumes that are offshored abroad; (2) the type of product offshored; and (3) the capacity of distribution which includes lead times. The study is limited to the Spanish footwear industry and similar sectors.
Classified Drivers					
Why and how do firms reshore? A contingency-based conceptual framework. (Benstead et al., 2017)	Contingency theory	Systematic literature review Single case study Deductive development of a framework using previous literature Textile industry	UK	**1. Risk, Uncertainty and Ease of Doing Business** Supply chain disruption risk reduction Cultural distance improvement Offshore legislation minimisation Global economic conditions Currency exchange rate and variability Environmental issues reduction Social issues reduction **2. Cost-related** **Labour-cost reduction** Labour productivity improvements Duty cost reduction Transportation cost reduction Energy price reduction Non-labour production cost reduction Coordination and monitoring costs reduction Working capital/pipeline costs reduction Capacity utilisation improvement onshore **3. Infrastructure-related** On-site infrastructure issues Raw material supply network issues offshore	The drivers are listed in four main categories. The article has developed a contingency-based conceptual framework of the reshoring that includes reshoring drivers, implementation, and contingency factors. The research is limited to one case study, and the study cannot be generalised. The barriers and obstacles faced by the firm are not covered in this research. The authors call on future researchers to investigate Brexit and how it will affect reshoring.

				Skilled human resource availability Automated machinery **4. Competitive priorities** Flexibility improvement Dependability Responsiveness Speed to market improvement for new products Innovation improvement Know-how retention Intellectual property protection Quality improvements Made-in effect advantages	
Reshoring and insourcing: Drivers and future research directions. (Foerstl et al., 2016)	TCE and OBB and The "Make or buy" approach	In-depth evaluation	USA	**1. Human and behavioural factors** Bounded rationality Opportunism **2. Transactional factors** Environmental uncertainty Supply chain complexity Asset specificity Human asset specificity	The drivers are divided into two main categories based on a theoretical lens. The paper contributes to adding more knowledge in reshoring and insourcing drivers. Also, the study proposes new research avenues for future studies. The study is limited to the USA.
Offshoring versus back shoring: Empirically derived bundles of relocation drivers and their relationship with benefits. (Johansson et al., 2019)	TCE, RBV, OLI approach	A survey in Nordic countries. Survey related to offshoring phenomenon and back shoring (novel phenomenon) was based on offshoring Exploratory	Sweden Denmark	**1. Cost** Labour cost Other costs **2. Development** Access to skills and knowledge Access to technology Proximity to R&D and product development Focus on core areas **3. Quality** Market proximity Lead-time Production close to in the market Logistics cost Flexibility Changes in the currency exchange rates **4. External influence** Follows industry practice Requirements from customer Shortage of qualified personnel **5. Trade policy** Trade barriers Country-specific conditions	The drivers are categorised into five precise dimensions. The study is limited to a small sample. The novelty of the topic explains this. Future research avenues propose to investigate other locations.
Drivers and barriers to reshoring: A literature review on	OLI, TCE, and RBV approach	Systematic literature review	USA	**1. Global competitive dynamic** Changes in the global economy Political risks Eroding comparative	The drivers of reshoring are classified into five categories. This article contributes by p[roviding a clear

offshoring in reverse. (Wiesmann et al., 2017)				advantages (e.g. labour, taxes) Instability in exchange rates Increased competition on resource assets **2. Host country** Diminishing growth opportunities Inadequate quality Theft of intellectual property and weak patent enforcement High employee turnover Lack of trust and commitment among staff or suppliers Risk of public relations disaster due to supplier malfeasance 2 **Home Country Drivers** Political incentives Access to qualified personnel Increased degree of automation Higher productivity and work morale among staff Increased awareness of the environmental impact Increased focus on sustainability Strengthen brand through made in "XX." **4. Supply Chain Drivers** Innovation, research and development suffers due to the distance to manufacturing High coordination costs Risk of disruption Importance of and issues with delivery performance (speed and dependability) Difficulties in matching production (supply) and consumption (demand) volumes Growing demand for and shortages of accessible transportation Inability to provide services related to the product Increased demands on customization Difficulties due to the physical and mental distance **5. Firm-Specific Drivers** Wrong estimation of benefits and risks in the offshoring decision Lack of knowledge about the host country during the offshoring decision Overhasty offshoring decisions	view of reshoring drivers. A small sample of articles limits the paper. This article calls for future research to investigate the drivers and barriers in more detail and enrich the why and how questions related to reshoring.

				(bandwagon effect) Over-estimation of cost savings during the offshoring decision	
Offshoring and reshoring: An update on the manufacturing location decision. (Ellram et al., 2013)	X	Quantitative analysis Sample size: 319 participants Exploratory analysis	USA	**1. Product** Currency Weight Raw material location **2. Cost** Switching cost Labour cost Stability of labour cost **3. Labour** Availability of local management Availability of labour **4. Logistics** Availability of knowledgeable Availability of transportation Stability of transportation cost Transportation reliability **5. Supply chain interruption risk** Distance to customer Terrorism Disaster Reputational risk **6. Strategic access** Market potential Customer presence Access to supplier or buyer knowledge Competitive pressure **7. Country risk** Global/political uncertainly Environment issues Social/ethical issues Natural disaster Political instability Regulation risk **8. Government trade policies** Tax advantages Subsidies Countertrade requirements	The drivers are divided into seven dimensions. The survey was extensive and global, and limited to the US. The political elections may have influenced the outcomes of the analysis at the time when it was done. Future research should address the topic using qualitative methods to have an in-depth analysis as some factors are unquantifiable.
Manufacturing backshoring: A systematic literature. (Stentoft et al., 2016)	X	Systematic Literature review	German Denmark US New-Zealand UK	**1. Cost** Increasing labour costs Increasing logistics costs Eroding cost advantage Higher-than-expected coordination efforts and transaction costs Miscalculation of the actual cost Changes in the energy cost Productivity differences between locations Need for small production runs **2. Quality** Low quality **3. Time and flexibility**	The motivations are divided into three categories. The paper provides an in-depth understanding of the literature content. This article does not identify the barriers to reshoring. Future research avenues suggested by the authors include the impact of global manufacturing footprint and the reshoring decisions.

				Delivery lead-time Demand volatility and supply chain resilience Production and delivery reliability	
Motivations of manufacturing reshoring: An interpretative framework. (Fratocchi et al., 2016)	The goal: "customer perceived value" vs "cost efficiency." RBV The level of analysis: "internal environment" vs "external environment." TCT and RBV	Systematic literature review	USA	Purchase order rigidity Container-size minimum order Reduced operational flexibility Reduced responsiveness to customer demand Need to increase customer satisfaction Loss of innovation potential Poor local product quality Lack of skilled workers in the host country Made-in effect Automation of production process Supply chain coordination cost High inventory levels Penalty for late orders Labour cost gap reduction Exchange rate risk Energy costs Increased country manufacturing productivity Energy costs High unemployment rates at the home country Production and delivery time impact Lack of systematic location planning Lack of knowledge about the foreign destination Redefinition of the global supply chain Emotional elements Global supply chain risks Home labour market flexibility National subsidies for relocation Untapped production capability at home Freight costs Logistic costs Total costs sourcing	
Before reshoring: A duration analysis of foreign manufacturing ventures. (Ancarani et al., 2015)	OLI Model	Survival analysis	US and European countries (France, German, and Italy)	**1. Efficiency seeking** Customer proximity Host country legislation Know-how and IP Physical and cultural distance Supply chain risk **2. Market-seeking** Coordination and monitoring cost Labour elements (costs and productivity) Logistic performance (except costs)	The drivers were theoretically classified using the OLI model. The paper contributes to refine further the push factors leading to reshoring. Study limited to US and European countries.

				Production and logistics costs (except labour cost) **3. Resource seeking** Automation Currency exchange Host country infrastructures Skilled human resource availability **4. Strategic asset seeking** Ability to quickly respond to changing market conditions Global economy Improve customer satisfaction Made-in-effect Quality Taxes and incentives	
What do we know about manufacturing reshoring? Barbieri et al. (2018)	TCE, RBT	Systematic literature review Exploratory analysis	USA	**Managerial mistakes** Miscalculation of the actual cost Bandwagon effect Mistake correction Lack of knowledge in the host country Lack of location planning Bounded rationality Opportunism **External environment** Access to skill and knowledge Lack of skilled workers in host country/availability in the home country Untapped production capacity at home/capacity bottleneck in the host country (also external) Union pressure at the home country (also internal) Labour costs' gap reduction Logistics costs (also internal) Energy costs and shortage Home labour market flexibility Increased home country productivity The total cost of sourcing (also internal environment) Freight costs (also internal) National subsidies for relocation Payment terms Excessive paperwork/administrative costs Customs duties for re-import Customer-related issues Poor local products quality Made-in effect Customers' gratitude and willingness to buy Host market size reduction/other market growth Innovation loss of know-how in the host country/IP risks (including brand counterfeiting)	The paper divides the drivers into three dimensions. The paper explains reshoring through the 5Ws and 1H. The sample size larger than the previous systematic literature paper (Wiesmann et al., 2017) but still limited by the topic's novelty.

				Technology clusters (at the home country) and spillover benefits Global supply chain risks (including VUCA – volatility, uncertainty, complexity and ambiguity) Demand volatility Psychic distance Intercultural criticalities Political, social risk (including legislation) Supply chain management (excluding costs) Production and delivery time impact (also internal) Lack of infrastructure in the host country Availability/termination of supplier relationships Closeness to the supplier of raw material Raw material availability Raw material dimension (e.g. size) Access to skill and knowledge Lack of skilled workers in host country/availability in the home country Untapped production capacity at home/capacity bottleneck in the host country Union pressure at the home country (also internal) Logistics costs Payment terms Excessive paperwork/administrative costs Customs duties for re-import Customer-related issues Poor local products quality Host market size reduction/other market growth Innovation loss of know-how in the host country/IP risks (including brand counterfeiting) Technology clusters (at the home country) and spillover benefits Exchange rate risk Global supply chain risks (including VUCA – volatility, uncertainty, complexity and ambiguity) Production and delivery time impact (also internal) Lack of infrastructure in the host country Availability/termination of supplier relationships	

				Closeness to the supplier of raw material Raw material availability Raw material dimension (e.g. size) Access to physical resources Untapped production capacity at home/capacity bottleneck in the host country (also external) Coordination and communication costs High inventory levels Penalties for late orders Freight costs (also external) Logistics costs (also external) The total cost of sourcing (also external environment) Hidden costs: Total cost of sourcing (also external environment) Customer-related element Reduced responsiveness to customer demand/customer proximity Need to increase customer satisfaction Loss of innovation potential/vicinity to R&D Implementation of strategies based on product/process innovation Managerial/entrepreneurial issues emotional elements (e.g. patriotism/loyalty) Change in firm's business strategy (e.g. new business area and vertical integration) Firm's global reorganization Firm's aims in terms of environmental and social sustainability Focus on core activity Production management Automation of production process Lean manufacturing Engineering technology of production process Adoption of moveable factories Supply chain management Reduced operational flexibility Redefinition of the global supply chain **External environment** Access to physical resources Untapped production capacity at home/capacity bottleneck in the host country (also external) Union pressure at the home country (also external)	

				Coordination and communication costs High inventory levels Penalties for late orders Freight costs (also external) Logistics costs (also external) The total cost of sourcing (also external environment) Hidden costs The total cost of sourcing (also external environment) Customer-related element Reduced responsiveness to customer demand/customer proximity Need to increase customer satisfaction Loss of innovation potential/vicinity to R&D Implementation of strategies based on product/process innovation Managerial/entrepreneurial issues emotional elements (e.g. patriotism/loyalty) Change in firm's business strategy (e.g. new business area and vertical integration) Firm's global reorganization Firm's aims in terms of environmental and social sustainability Focus on core activity Production management Automation of production process Lean manufacturing Engineering technology of production process Adoption of moveable factories Supply chain management Reduced operational flexibility Purchase order rigidity (also in terms of minimum order) Redefinition of the global supply chain Access to physical resources Untapped production capacity at home/capacity bottleneck in the host country (also external) Union pressure at the home country (also external) Coordination and communication costs High inventory levels Penalties for late orders Freight costs (also external) Logistics costs (also external) The total cost of sourcing (also external environment)	

				Hidden costs The total cost of sourcing (also external environment) Customer-related element Reduced responsiveness to customer demand/customer proximity Need to increase customer satisfaction Innovation Loss of innovation potential/vicinity to R&D Implementation of strategies based on product/process innovation Managerial/Entrepreneurial issues Emotional elements (e.g. patriotism/loyalty) Change in firm's business strategy (e.g. new business area and vertical integration) Firm's global reorganization Firm's aims in terms of environmental and social sustainability Focus on core activity Production management Automation of production process Lean manufacturing Engineering technology of production process Adoption of moveable factories Supply chain management Reduced operational flexibility Production and delivery time impact (also external) Redefinition of the global supply chain	

Regarding the drivers of reshoring, some articles focus on certain types of manufacturers or specific countries only. For instance, Foerstl et al. (2016), Wiesmann et al. (2017), Ellram et al. (2013), Fratocchi et al. (2016), Tate et al. (2014), and Joubioux and Vanpoucke (2016) have covered a variety of industries and focused their research in the USA. On the other hand, Kinkel and Malorca (2009) study was based on different manufacturing industries in Germany. Di Mauro et al. (2018) have investigated four clothing-textile-leather-footwear manufacturing industries in Italy. Similarly, Engström et al. (2018) study has explored four manufacturing industries from the different sectors in Sweden. Fabienne and Eric (2017) have examined

different manufacturing sectors returning to France. Unlike the previous authors, Martínez-Mora and Merino (2014) have concentrated their research on Spanish footwear industries. For the UK, Robinson and Hsieh (2016) have based their research in the luxury retailer Burberry as a case study, while Benstead et al. (2017) have tackled this topic in the UK from a general perspective. Other articles have investigated reshoring drivers based on several countries and different sectors. Countries such as Sweden and Denmark were studies by Johansson et al., (2019), USA, France, Germany and Italy were the focus of Ancarani et al. (2015), while Stentoft et al. (2016) concentrated on Germany, Denmark, USA, New Zealand and the UK.

The existing literature on drivers of reshoring is twofold. Some studies have identified the drivers of reshoring individually without classifying them. This is represented in articles such as Kinkel and Maloca (2009), Di Mauro et al. (2018), Joubioux and Vanpoucke (2016), Heikkilä et al. (2018), Johansson and Olhager, (2018), Robinson and Hsieh (2016), Srai and Ané (2016), and Fabienne and Eric (2017), as shown in *Table 2*. For instance, Kinkel and Malorca (2009) have simplified the drivers of reshoring into five broad factors. The study shows the quality problems as being the main driver factor for bringing manufacturing back home. In similar veins, Di Mauro et al. (2018) findings show that quality problems represent a high risk for seeking foreign suppliers and productions abroad. Moreover, the quality related issues include underestimated costs for quality measures, control, and coordination to achieve the desired product (Di Mauro et al., 2018). The following drivers are flexibility, higher than expected coordination costs, weak infrastructure in the host country, and unavailability of qualified workers. Joubioux and Vanpoucke (2016) article, which is based on large-scale survey, added factors such as value chain resilience, less reliability in production, and risks of disruptive supply. Though, the Kinkel and Malorca (2009) drivers listed are missing many drivers compared to other studies, as shown in *table 2.* For instance, drivers such as resources, labour costs, logistics, and supply chain disruption, are not listed in the study. Moreover, Joubioux and Vanpoucke (2016) drivers are not

listed within categories, and the study is limited to the US aeronautic sector that offshored to Asia.

More detailed drivers were identified by Di Mauro et al. (2018) who proposed 42 factors for reshoring. This analysis is based on qualitative research through four manufacturing case studies in Italy. The authors suggest that reshoring is a heterogeneous phenomenon because it is a solution for many offshore issues faced by the firm (Di Mauro et al., 2018). Compared to the Srai et al. (2016) article, both studies list the same drivers. However, Di Mauro et al. (2018) have aggregated some drivers in one category. For instance, *the correction of previous managerial mistakes* encompasses drivers like *lack of efficient location planning* and *product and organisation innovation* includes factors like *automation* and *adoption of new technologies in manufacturing*. According to Di Mauro et al. (2018), reshoring decisions are motivated by the firm objective to achieve competitive advantages. Likewise, research such as Grandinetti and Tabacco (2015), Huq et al. (2016), and Robinson and Hsieh (2016) have discussed case evidence of firms that revised their location strategies based on competitive advantages and not as a correction of previous managerial decisions. In this respect, reshoring is a strategy not only designated for correction of a previous misjudged decision (Gray et al., 2013; Kinkel, 2014) but also as a "deliberate strategy" chosen to respond to internal and external changes (Fratocchi et al., 2015; Gylling et al., 2015; Martínez-Mora and Merino, 2014). Other factors include the customers' perceptions of a product (Di Mauro et al., 2018). This is in line with Grappi et al. (2015), who suggest that nowadays, customers have a higher willingness to consume reshored products. This can be explained by the consumers' awareness of the advantages of reshoring production back home. Moreover, the offshoring to low-cost countries have a history of unethical working conditions and human abuse. Examples include the Nike scandal over employing underage employees (Campbell, 2000). Another example is the unsatisfactory working conditions at an Apple assembly factory in Asia (Bilton, 2014). In another hand, the reshoring manufacturing is known to improve the firm quality, sustainability, and national contribution of

developing the country through bringing jobs back home (GOV, 2014). In similar veins, Robinson and Hsieh's (2016) study propose firms in the fashion industry such as Burberry have reshored their manufacturing to restore their brand image and regain customer satisfaction. Finally, the studies conducted by Di Mauro et al. (2018) and Srai et al. (2016) have covered multiple factors driving the reshoring decisions. Even though the studies were conducted in different markets, the articles have many similarities in the drivers identified. However, the drivers listed in the studies are not categorised, which in practice makes the identification of those drivers by the decision-makers a complex task (Wiesmann et al., 2017).

Other studies have categorised the drivers into different categories and explained the factors accordingly. In Foerstl et al. (2016) study, the drivers of reshoring are divided into two main factors, behavioural & human drivers, and transactional drivers. The authors have theoretically explained these drivers through Transaction Cost Economics (TCE) and Organisational Buying Behaviour (OBB), and based on these theories, the reshoring drivers are categorised through transactional and behavioural characteristics (Foerstl et al., 2016). In their research, Foerstl et al. (2016) suggest that the TCE approach reflects why firms reshore a business activity from a certain location based on cost advantages, while the OBB approach is complementary to TCE by providing additional details for framing reshoring drivers. More precisely, the OBB explains the reshoring drivers through their frequency, novelty, importance, and complexity (Foerstl et al., 2016).

The behavioural and human drivers

According to Foerstl et al. (2016), the behavioural and human drivers of reshoring are caused by assuming the managerial decisions and behaviours are bounded rational decisions, which limits the knowledge of the decision makers (Foerstl et al., 2016). The inability to foresee the potential risks based on bounded rational decisions makes the offshoring locations faced with threats such as poor quality, issues with supplier, and increased costs of coordination & control (Foerstl et al., 2016). An example of the bounded rational decisions is the case of the General Electric firm,

which planned to reinvest $800 million into their previously abandoned manufacturing site in Kentucky (Foerstl et al., 2016). The reason was to reproduce the appliances back in the USA previously offshored overseas. The reshoring back to the USA was caused by the dramatic decline in sales resulting from low product quality and unpredicted increase in Chinese labour costs (Foerstl et al., 2016). The bounded rationality is illustrated through the firm inability to exploit the expected benefits the decision-makers planned and predicted (Foerstl et al., 2016). Moreover, the bounded rational decisions originated from the managerial previous decisions based on the bandwagon effect (Foerstl et al., 2016). This is explained by the firm decisions being based on imitating competitors who offshored their business activities and justifying their decisions on the grounds of benefits attained by other offshore firms (Foerstl et al., 2016).

Another driver for reshoring is turnovers, causing frequent changes of the management team (Foerstl et al., 2016; Tate, 2014). It is believed that different management teams can lead to a different business evaluation, and on some occasions, to a complete change in product segments (Tate, 2014). An example of this is Varta Microbattery GmbH Company, which changed its product strategy from mass heavy industrial batteries to micro-batteries (Foerstl et al., 2016). This led to reshoring back to the home country-based factory because the new production of micro-batteries can be efficiently manufactured in the home country (Foerstl et al., 2016). This is because the firm product research & development team required close interactions with the firm headquarters in Germany to effectively develop and produce the new product (Foerstl et al., 2016).

Additionally, Foerstl et al. (2016) suggest that the lack of codification of knowledge by converting the tacit knowledge to explicit knowledge might complicate the movement of knowledge from the headquarters of the firm to their subsidiaries and vice versa (Gulbrandsen et al., 2009). Yet, a lack in communication of the knowledge regarding the value creation tasks is very likely to negatively affect the business operations, which will eventually enhance transaction costs and lead to reshoring (Foerstl et al., 2016). These issues usually cause complications in the

relationships with suppliers and therefore favour reshoring (Kogut & Zander, 1993). For example, the Otis Elevators company offshored from South Carolina to Mexico to benefit from low labour costs and government incentives (Foerstl et al., 2016). However, the firm ran into an excessive production build-up, ultimately causing significant production delays and orders cancellations (Foerstl et al., 2016). The business managers informed that the failures in production were caused by problems in communicating with the Mexican plants, which required rework, and eventually unexpected costs increased, leading to reshoring (Foerstl et al., 2016). This is explained by opportunism, which is defines as the behaviour of involved parties toward specific transaction partners driven by self-motivation (Williamson, 1973). In this example, both Otis Elevators headquarter in South Carolina and the offshore production site in Mexico suspect that the other party is opportunistic. This means that each of the parties assumed the other is acknowledgeable of the business current situation (Foerstl et al., 2016). While this is not the case, complication in operation rose due to lack of communication, which resulted in increased in internal transaction costs (Aubert et al., 2004). Moreover, the opportunism highlights the firm dependency on suppliers for resources, technology, and assets, allowing suppliers to be in a position of power (Handley & Benton, 2013). For example, Hubbardton Forge, a lamp fixture manufacturer, reshored production back to the USA due to increased related dependency on suppliers' possession of key resources and their high power over dictating prices for supplied materials, sometimes at short notice (Reshoring Initiative, 2015).

Transactional drivers

According to Foerstl et al. (2016), the transactional drivers are caused by the environmental uncertainties perceived by the degree of volatility and unpredictability in the market (Milliken, 1987). These uncertainties expose firms to potential disturbances and are considered a strong driver of reshoring decisions (Ellram et al., 2013; Gray et al., 2013; Tate et al., 2014), especially when uncertainties are combined with bounded rationality (Aubert et al., 2004). This means that

increased costs, such as wages and transportation costs, cause unpredictable problems that require immediate changes in the business set models (Sirkin et al., 2014).

The business uncertainties are caused by changes in the economic growth, material shortages, and exchange rate fluctuations (Ellram et al., 2013; Tate et al., 2014). An example of this is the Lemken & Co Company, which relocated its agricultural machinery from Russia to Germany due to political instabilities, material shortages, and constantly changing logistical costs (Foerstl et al., 2016). Moreover, increased uncertainties related to institutional and regulatory changes affect the attractiveness of a country (Foerstl et al., 2016). These changes include subsidies and policy changes, labour market regulations, tax structures, and political stability (Gray et al., 2013; Tate, 2014, Tate et al., 2009), as well as government changes for intellectual property protections (Ellram et al., 2013; Tate, 2014). For example, Caterpillar Company decided to reshore their manufacturing engines from Japan to Texas because of unpredictable tax policies and changes in intellectual property protection regulations in the host country (Foerstl et al., 2016).

Another uncertainty related driver is the business supply chain complexity (Ellram et al., 2013). Complexities related to the supply chain affect control, transportation costs, coordination, and the inventories (Tate et al., 2011). The long distance and cultural differences affect the supply chain negatively (Alcacer, 2006; Handley & Benton, 2013). These were experienced by Margarete Steiff Company that reshored its business activities from China back home because of the high costs connected with auditing and communicating the business practices with their Chinese suppliers (Foerstl et al., 2016).

Finally, task uncertainty may be a key driver for offshoring decisions (Manuj & Mentzer, 2008), mainly for firms seeking innovation and technological progress (Foerstl et al., 2016). This is the case of business strategies driven by cost advantages through seeking low labour countries (Foerstl et al., 2016). In this context, the firm reshoring driving factors are changing to automation, known as industry 4.0, which replaces large labours (Lasi et al., 2014). An example of this is NCR Ltd, a firm that produces ATMs. To serve the European markets, the firm moved

production back to Hungary from India (Foerstl et al., 2016). NCR was faced with a remarkable decline in coordination work and costs of R&D, and an increase in labour costs, logistics, and production activities (Ketokivi & Ali-Yrkkö, 2009). Though, NCR reshored and recreated value by changing to automation, especially because of the lack of skilled labours in Hungary (Foerstl et al., 2016).

Another example of task uncertainty is shown through the frequency of the number of transactions between parties (Foerstl et al., 2016). If the transactions fail to foresee anticipated order frequency in offshoring manufacturing, the logistics costs increase, resulting in loss of competitive cost positions compared to other regionally centred competitors (Foerstl et al., 2016). In addition to this, frequent changes in product design and creativity of components increase task novelty, which eventually increases the transaction costs of internal operations, R&D, and upstream and downstream functions (McQuiston, 1989). Finally, the firm higher product variety results in task frequency, leading to increased costs for offshoring manufacturing (McIvor, 2009).

Asset specificity is defined as long-term investments founded for specific products and practices (Williamson, 1985). The physical asset specificity is when a particular investment requires customized transactions for a specific value creation task, mainly in high product or process complexity occasions (McIvor, 2009). When the market forces demand changes, the customized assets in a specified transaction may lower transaction costs, reduce product variety, and increase market adaptability (Williamson, 1985). Also, the technological advances may influence the asset specificity and eventually requires a revision of location-decisions. For example, if supplier production technologies are not up to date or do not suit the firm product specificity anymore, the offshore business may consider reshoring in-house and seek regional sources (Handley & Benton, 2013). In this context, Siteco, a lighting manufacturer, reshored from Slovenia to Germany. This decision was made due to a product technology shift requiring less labour but demanding specialised customization, favouring going back to manufacturing in Germany (Foerstl et al., 2016). Resource availability is also part of asset specificity (Tate et al., 2014). This

is explained though worker skills, knowledge, and experience that affect the firms' success in offshore manufacturing (Ellram et al., 2013). Failure in any of these resources may drive the firm to reconsider relocation choices (Ellram et al., 2013). Finally, human asset specificity may contribute to personnel dedication to new and existing product innovation and development and production efforts (Foerstl et al., 2016). Knowledge plays a crucial role in human asset specificity and is usually associated with R&D, innovation, and production (Foerstl et al., 2016). Firms such as Ford Motors, Otis, and Varta Microbattery declared that they achieved better inter-communication and enhanced knowledge sharing from reshoring their manufacturing (Foerstl et al., 2016).

Hence, Foerstl et al. (2016) study recognise the drivers emerge due to environmental uncertainties. Moreover, the research highlights the issues related to the bounded rational from a behavioural perspective, which we perceive as aligning with this research assumption. However, the authors have limited their explanation to the behavioural and human drivers, which does not cover all the reshoring drivers such as host country drivers, home country drivers, firm-specific drivers, and global economy drivers (Wiesmann et al., 2017). Also, the authors explained the rest of the drivers based on stability through TCE (Coase, 1937) and OBB (Williamson, 1998), which are theories that stand for rationality. Thus, the study does not to provide a complete understanding of the drivers' categories based on a dynamical theoretical assumption.

A similar theory-based approach was proposed by Fratocchi et al. (2016) study that categorises the drivers into two main sections: the *goal* and the *level of analysis* (Fratocchi et al., 2016). The goal includes the *customer perceived value* and *cost efficiency*. The customer perceived value means the consumer preferences on a specific product (Fratocchi et al., 2016). From a manufacturer perspective, it means achieving the customer goals and preventing consequences from arising (Fratocchi et al., 2016). In the customer perceived value, the motivations for reshoring can be explained through the firm need to achieve and protect the aspects that impact the customer preferences (Fratocchi et al., 2016). These motivations include the consumer

perceived quality (Eggert & Ulaga, 2002) and product development and innovation (Riviere, 2015). In reshoring strategy, Fratocchi et al. (2016) assumes the RBV model enables the firm to re-create the product value and innovation and gain a competitive advantage by enhancing the product quality. Based on this assumption, reshoring is considered a good strategy when offshoring affects the intellectual property, quality, and development of a product (Fratocchi et al., 2016). Also, the access to talented and qualified employees, and resources, may favour reshoring (Fratocchi et al., 2016). The *Cost efficiency,* on the other hand, is considered an important aspect (Fratocchi et al., 2016). It relates to reducing the overall costs of a product by making the product differently (Fratocchi et al., 2016). Fratocchi et al., (2016) justify this driver by the theories such as the international trade theory, TCT, and internalization theory, which explain reshoring from a cost-efficiency perspective (Fratocchi et al., 2016). Based on these theories, Fratocchi et al. (2016) suggest that reshoring is implemented to reduce costs between locations, such as coordinating and monitoring the manufacturing operations. The cost-efficiency motivations for reshoring shows that the home country manufacturing costs can be reduced comparing to offshore, including the supply chain risks. Reshoring manufacturing through cost-efficiency is explained through the pursuit of lower production costs and logistics costs**,** and more efficient coordination and control costs. However, this assumption is not always true as shown in studies such as Ancarani et al. (2015) and Barbieri et al. (2018). Most of the time, reshoring is applied from a low-cost country to a developed country (Wiesmann et al., 2017), and usually costs in the home country are higher compared to the host country such as labour costs, supply chain, and coordination costs (Barbieri et al., 2018). If the firm base the reshoring decisions on an evaluation of costs through the International Trade Theory, TCT, and Internationalization Theory, which are theories that stand for rationality, the firm would not be able to exploit other emerging opportunities since the strategy will be based on cost reductions only (Mirabeau & Maguire, 2014).

Then, under the level of analysis come two categories *internal environment* versus *external environment*. The *firm-specific factors* are internal environment motivations, while *country-specific factors* fit external environment motivations (Fratocchi et al., 2016). The internal environment drivers are the factors that directly or indirectly affect the firm, such as the global changes that affect the resources and firm capabilities (Fratocchi et al., 2016). According to Fratocchi et al. (2016), this can be explained through the TCT and RBV theories that show the importance of the firm-specific factors favouring the decision to reshore back to the home country (Fratocchi et al., 2016). On the other hand**,** the external environment motivations for reshoring are shown through changes that affect the attractiveness of the home and the host country (Fratocchi et al., 2016). These changes are essentially costs related to production such as production costs, labour availability, barriers to investments, and trade tariffs (Fratocchi et al., 2016). Moreover, Fratocchi et al. (2016) explain the internal environment motivations through the fact that offshoring may cause longer than expected transportation times and planning, and in return, less control and flexibility on business operations. Also, within cost-efficiency in internal environment motivations, the more supply chain complexities are high, the more it affects the coordination costs and inventory costs, resulting in late deliveries (Fratocchi et al., 2016). In recent years, firms favour reshoring to the home countries, usually – developed nations – to increase efficiency through automation (Fratocchi et al., 2016). Value-driven external environment motivations show quality related problems, such as low quality, lack of skilled labour, and technological capabilities in offshore sites (Fratocchi et al., 2016). Moreover, the loss of intellectual property and know-how are considered drivers of reshoring as they damage the competitiveness of the firm (Fratocchi et al., 2016). Finally, the firm efficiency in external environment motivations mainly shows the changes in the cost discrepancies between the home and the host countries in the business operation (Fratocchi et al., 2016). For instance, labour cost, energy cost, infrastructure, and currency exchange rate risk **(**Fratocchi et al., 2016). Fratocchi et al., (2016) clarifies that some motivations can be both internal and external environmental

motivations. For instance, the logistic costs can be both; the internal environment is the transportation costs of a supply chain such as fuel, and external environment in country-specific factors such as custom duties (Fratocchi et al., 2016). Likewise, optimal capacity utilization in production leads to higher efficiency, one key driver of reshoring decisions. This would essentially be a firm-specific factor. However, the underutilization of production capacity offshore due to other global crises, which can affect firms in many ways, has been considered a country-level driver (Kinkel & Zanker, 2013). Similarly, some drivers reflect both value-driven and efficiency-driven factors. In the internal environment, this is shown in the internationalisation strategy and planning weaknesses. An example of this is the lack of knowledge about the host country – which caused misjudgements on costs and eventually value creation (Fratocchi et al., 2016). At the external environment level, the driver, which is the global supply chain risk caused by political risks and transportation costs instability have a significant impact on both value such as customer service**,** and firm efficiency**,** such as higher costs for shipping and penalties for late deliveries (Fratocchi et al., 2016). The finding of Fratocchi et al. (2016) provides a good understanding on the multiple factors of reshoring described in a quadrant framework. Also, the study indicates that reshoring is caused by unexpected changes in the global market and the driver factors are a result of environment uncertainties. However, the authors explained the driver factors from a stable lens and do not provide an understanding from a dynamical lens that considers environmental uncertainties.

Ellram et al. (2013) article has categorised the drivers influencing the firm reshoring decisions into eight main factors explained through region distribution and theoretically analysed through Dunning's paradigm, as shown in *Table 2*. The study is based on a quantitative analysis using a survey on a sample size of 319 participants aimed to identify the factors influencing a business decision to manufacture or relocate. The authors explained the driving factors from a country and region perspective, as discussed below.

According to Ellram et al. (2013), reshoring to America in comparison to other continents has been the focus of the literature. The study shows that the main factors favouring reshoring to North America from the host countries include reducing supply chain interruption risks such as long-distance and reputational risk, better government trade policies in America, and input/product factors that include quality and proximity to customers (Ellram et al., 2013).

Concerning East Asia, offshoring was influenced by labour availability and costs advantages (Ellram et al., 2013). The input/product associated with logistics factors (e.g., availability of transportation, stability of transport costs) and supply chain interruption have damaged East Asia reputation in manufacturing and favoured reshoring back home (Ellram et al., 2013). For example, the increased fuel costs have affected transportation costs (Behar & Venables, 2010; Fishman, 2012).

For India and South Asia, there were no location factors influencing offshoring. But factors affecting the movement from India back to the home country include issues with the availability of local management and labour (Ellram et al., 2013), increasing costs and government trade policies-related problems (e.g., tax advantages, subsidies), increased logistic and supply chain interruptions risks, affecting South Asia attractiveness as a manufacturing location choice (Ellram et al., 2013).

Africa was rated as a region with the highest risks (Ellram et al., 2013). Usually, offshoring to Africa is driven by input/product factors, including the availability of resources (Ellram et al., 2013). However, the attractiveness of this continent is damaged due to supply chain interruption risks and operating environment risks such as human rights violations and considerable terrorism and piracy (Ellram et al., 2013).

For Central and Eastern Europe, risk related to local management and labour availability reduces its attractiveness and favours reshoring manufacturing (Ellram et al., 2013). The availability of labour that was a reason for offshoring the business operation changed over time turning this

factor into a driver for reshoring (Ellram et al., 2013; Tate et al., 2014). This labour shortage is explained by the Europe suffering from growing ageing population (Ellram et al., 2013).

Concerning South America**,** the only significant location factor influencing attractiveness is that input/product was viewed as more competitive (Ellram et al., 2013). Moving back from this continent is driven by supply chain interruption risks (Ellram et al., 2013).

The Middle East was rated as a highly risky region, like Africa (Ellram et al., 2013). The Middle East is considered an attractive location because of the favourable government trade policies, such as tax advantages, subsidies, and trade policies (Ellram et al., 2013). However, the attractiveness of this region declined due to the perceived high level of supply interruption risk, distance to the customer, terrorism, disaster, and reputation risks (Ellram et al., 2013).

For Oceania, including New Zealand, Australia, and New Guinea, there is equal number of positive and negative factors (Ellram et al., 2013). The region is viewed as a more attractive location for manufacturing due to its strong work ethics and stable governments. Since this article was based in the USA, the researchers claimed these regions are also perceived as more favourable locations for offshoring due to cultural similarities (Ellram et al., 2013). However, labour availability and costs have changed over time, and the supply chain disruption risks have increased, making Oceania a less attractive location for manufacturing (Ellram et al., 2013).

From the above discussion, we deduce that Ellram et al. (2013) article is the only study citing the drivers based on countries aspects. The strength of this study is that the findings are based on an extensive large survey of many multinational companies. However, the study is limited to the U.S perspective over the listed countries. As Ellram et al. (2013) stated, the sample is big but based on USA only, which provides a general view on the topic. Moreover, Ellram et al. (2013) results on offshoring and reshoring are more likely to have changed since 2013. Another limitation is that this research coincides with the year of elections in the USA (Ellram et al., 2013). This means that the study might have been impacted by political campaigns encouraging "bringing jobs back to America" (Ellram et al., 2013). Future research avenues of the article

encourage future researchers to explore the topic through an in-depth analysis based on mixed methods to understand the drivers of this phenomenon and how the decisions work in other countries, which is the aim of this research.

Another study conducted by Benstead et al. (2017) and based on contingency factors proposes four categories of reshoring drivers.

Risk, uncertainty, and ease of doing business

The drivers included in this section show that the firm reshoring decisions back to the home country aim to reduce the risks and uncertainties (Benstead et al., 2017). This is explained by the offshoring being a location-decision that can face different levels of risk (Wienmann et al., 2017). For example, the supply chain disruption risk is considered a key driver of reshoring (Benstead et al., 2017). It is one of the most common risks a firm can face offshore, mainly caused by increased demand over resources and higher competitiveness in the market (Bailey & De Propris, 2014; Tate, 2014). This driver is caused by unpredictable changes in the global economic conditions that can highly influence the decisions of reshoring (Benstead et al., 2017; Fratocchi et al., 2016). To illustrate this, Kinkel (2012) research shows that firms are more likely to reshore the manufacturing domestically when the global economy becomes unstable. Most of the time, global changes are coupled with complications in business transactions and operations (Martínez-Mora & Merino, 2014). In similar veins, unpredictable changes in currency exchange rates are factors favouring reshoring (Benstead et al., 2017). An example is the recent increase in Chinese currency fluctuations, which have affected the costs of imports, leading to many reshoring cases (Martínez-Mora & Merino 2014; Gylling et al. 2015). Other risks favouring reshoring can be caused by the psychic distance between the offshore country and the home country (Benstead et al., 2017). For instance, the psychic distance can make the offshoring operations more complex because of the cultural differences, which causes language and communication barriers (Benstead et al., 2017; Gray et al., 2013; Tate 2014). Other drivers mentioned by Benstead et al. (2017) and recent studies such as Gray et al. (2013), Tate et al. (2014), and Presley et al. (2016) highlight the

importance of environmental and social factors that significantly impact the firm reputation. For instance, reducing carbon footprint (Gray et al., 2013) and human rights violations (Tate et al., 2014) are increasingly becoming important drivers for reshoring back to the home country.

Cost-related drivers

Cost is an important variable when it comes to reshoring (Benstead et al., 2017). Research in offshoring has shown that location decision may face many unexpected, hidden**,** or greater than expected costs in the business operations. For example, transportation costs are interconnected with deliveries, supply chain, and production (Bailey & De Propris 2014; Tate et al. 2014). Similarly, Kinkel and Maloca (2009) study indicates that offshoring location coordination and monitoring costs increase overtime. The offshoring manufacturing can require higher working capital and pipeline costs, involving extensive inventories (Tate et al., 2014). Moreover, locations that may have been attractive due to labour costs change overtime in a way that causes costs to increase, sometimes unexpectedly (Pearce 2014; Wu & Zhang 2014). For instance, increased labour costs that have driven many firms to reshoring manufacturing (Martínez-Mora and Merino, 2014). When unexpected events occur, returning to the domestic production may be in the firms best interests (Tate et al., 2014). In similar veins, the study of Martínez-Mora and Merino (2014) explains how reshoring and converting to local suppliers might create manageable, more frequent orders, which reduces inventory costs.

Infrastructure-related drivers

Infrastructure issues in the offshore location are believed to be a potential reshoring driver (Kinkel & Maloca, 2009; Kinkel & Zanker, 2013). The infrastructure problems can be related to the site, labour, materials and machinery, and access to any of these (Benstead et al., 2017). For instance, Kinkel and Maloca (2009) study suggested it is difficult for the firm to build a reliable supply network offshore, especially related to raw materials. Besides this, low availability of the skilled human resource may influence reshoring decisions (Bailey & De Propris 2014; Stentoft et al. 2016). Another factor is the automated machinery that grow in recent years in developed

countries, leading to more reshoring cases (Arlbjørn & Mikkelsen 2014; Tate et al. 2014). In similar vein, Dachs and Kinkel (2013) suggest automation machinery guarantees improved quality, flexibility, and reduced production costs including labour costs.

Competitive priorities

Among drivers of reshoring is the pursuit of none cost related competitive priorities (Benstead et al., 2017). This includes factors that improve the flexibility and reliability of the firm (Kinkel & Maloca 2009; Kinkel 2012) through reducing issues with delivery and improving customer satisfaction (Fratocchi et al. 2016). Also, returning to the home country can improve responsiveness due to customer proximity (Fratocchi et al., 2016; Moradlou et al., 2017; Tate et al., 2014). Other drivers include product innovation and development (Pearce 2014), monitoring the R&D, know-how retention (Kinkel 2014), intellectual property protection (Tate et al. 2014), and technology investments (McIvor 2013; Stentoft et al. 2016). Many researchers such as Kinkel et al. (2007), Kinkel and Maloca (2009), Kinkel (2012), Kinkel and Zanker (2013), and Zhai et al. (2016) highlight that reshoring improves the quality products and production. In this context, a survey conducted in New Zealand indicates that offshoring to low wage countries has shown issues with quality level (Canham & Hamilton's, 2013), while a survey focusing on US suppliers showed that similar products manufactured nationally are higher quality than their international rivals (Uluskan et al., 2016).

The study conducted by Benstead et al. (2017) has shown the reshoring drivers are caused by the environment unpredictabilities, which is in line with this research assumption. Theoretically, the article is based on the contingency theory that explains reshoring through a full assessment of each category before the implementation of reshoring (Benstead et al., 2017). This means that based of this theory, the firm will need to fully assess the costs and risks before the implementation of the reshoring strategy. According to Gray et al. (2017) a complete evaluation of reshoring factors is time and energy consuming. In addition to this, Tate et al. (2014) suggest that a full assessment is not effective in reshoring decisions because of the dynamical

characteristics of the environment in which reshoring occur that may affect the reshoring strategy. Thus, even though the study recognise reshoring is a dynamic phenomenon, it is still not providing an approach that considers assessing the drivers of reshoring in an uncertain environment.

According to Johansson et al. (2019), reshoring drivers are classified into five main categories. The first key driver for reshoring is *cost-related* such as labour costs. The second driver is *development,* which include four sub-drivers: access to skills and knowledge, access to technology, proximity to R&D, and product development by focusing on core products (Johansson et al., 2019). The third driver is *quality*, which is highly influenced by market proximity and delivery time, closeness to the market, costs for logistics, flexibility, and changes in currency exchange rates (Johansson et al., 2019). The fourth driver of reshoring is the external influence affecting the firm in the *host country* (Johansson et al., 2019). For instance, customers' specific requirements in customising a product are considered a driver for reshoring because this factor is difficult to maintain in the host country (Johansson et al., 2019). A shortage of qualified personnel makes it more challenging to produce offshore and favour producing back in the home country (Johansson et al., 2019). The last driver is the *trade policy*, which is a significant factor for reshoring because it affects the policies and regulations of doing business in the host country **(**Johansson et al., 2019).

Johansson et al. (2019) article was based on quantitative data collected through a survey in the Nordic countries. The explanation of the reshoring drivers provided by the authors was founded upon offshoring weaknesses in offshore manufacturing. Though, as described by the authors, the data was not collected from reshored manufacturing due to the novelty of the topic. Thus, the knowledge is not based on reshoring cases, which reduces the validity and reliability of the study. Also, the article understanding was based on theories such as TCE, OLI, and RBV, and as mentioned earlier, these theories are standing for stability while reshoring is an unpredictable phenomenon requiring a theoretical foundation that stands for its dynamical nature.

Another attempt at identifying drivers of reshoring was made by Ancarani et al. (2015), who categorised the drivers of reshoring into four main drivers: *efficiency-seeking, market seeking, resource seeking, and strategic asset seeking factors*. This categorisation was theoretically based on Dunning's paradigm, which suggests that international business conditions can change over time, leading firms to search for new locations offering more advantages with low risks (Dunning, 2000).

Efficiency-seeking factors include customer proximity, regulation and legislation, know-how, cultural difference, psychic distance, and supply chain disruptions, which are the most important drivers (Ancarani et al., 2015).

Market-seeking factors include coordination and monitoring costs, labour costs and productivity, logistics performance, and production and logistics costs (Ancarani et al., 2015).

In resource-seeking factors**,** reshoring is favoured by automation, which replaces human costs and ensures high quality (Ancarani et al., 2015). Also, this category can be seen through access to resources such as skilled human resource availabilities and talent labour (Ancarani et al., 2015).

Finally, the strategic asset-seeking motivations are explained through the local market conditions and the ability to quickly and efficiently respond to changing conditions, significantly affecting the relocation of manufacturing. Firms may also consider returning to the home country due to environmental conditions in the host country, such as the global economy changes. Moreover, the quality and the "made in effect" are considered fundamental factors favouring manufacturing reshoring (Ancarani et al., 2015).

Ancarani et al. (2015) paper refined the reshoring driving factors through four dimensions of location advantages based on Dunning paradigm. However, the study is limited to US and European countries only.

Stentoft et al. (2016) research has classified the factors influencing the relocation of manufacturing back to the home countries into seven categories: cost, quality, time and flexibility, access to skills and knowledge, risks, market, and other factors. The authors have

identified these drivers and classified them through a content analysis of the extant literature based on 20 articles. The study shows that operation cost-related factors are considered the primary motivations for reshoring (Stentoft et al., 2016). According to Stentoft et al. (2016), reshoring is caused by the offshoring decisions being made based on costs miscalculations. Consequently, the firm face higher than expected costs (Kinkel & Malorca, 2009). The cost-related factors include but not limited to costs of labour, logistic, energy, coordination, and transaction.

Quality, time, access to skilled labour, and flexibility were frequently mentioned as important drivers in the literature (Fratocchi et al., 2016; Stentoft et al., 2016; Wiesmann et al., 2017). Specific issues related to this category were the availability of skilled labour, proximity to R&D, and lack of utilization of new technologies and automation (Stentoft et al., 2016). Moreover, risk characteristics were frequently cited as factors leading to reshoring (Stentoft et al., 2016). These can be the risk of losing intellectual property and know-how, changes in the currency exchange rates, and supply chain disruptions (Stentoft et al., 2016). Other drivers found in the reviewed literature include the correction of miscalculated decisions, government incentives favouring a specific location, and focus on core activities (Stentoft et al., 2016).

The article of Srai et al. (2016) revised and refined Stentoft et al. (2016) drivers and shows 46 drivers of reshoring in literature, as summarised in *Table 2*. Similarly, these drivers are divided under seven main reshoring categories: quality improvement, response to changes in the host country, reconfiguration of costs, enhancing innovation, improving customer satisfaction through proximity to customers, risk of supply chain disruption, institutional-related factors.

Similar to Stentoft et al. (2016) findings, Srai et al. (2016) research shows that the cause for quality issues and supply chain risks are related to previous poor offshoring decisions (Srai et al., 2016). The authors suggest that offshoring decisions were not founded upon a deep analysis, which favour a corrective mechanism to those decisions through reshoring (Srai et al., 2016). The key factors for reshoring manufacturing are related to improving customer responsiveness, which

requires proximity to the market (Srai et al., 2016). This is followed by drivers such as quicker product innovation and development (Srai et al., 2016).

The findings of Stentoft et al. (2016) and Srai et al. (2016) in the drivers are missing multiple factors compared to other studies such as innovation and institutional factor. However, studies such as Wiesmann et al. (2017) stress into the importance of these factors in their findings. Moreover, both Stentoft et al., (2016) and Srai et al. (2016) did not base their explanation on a theoretical foundation. According to Kuada (2012), it is very important to provide a theoretical understanding that helps the researcher connect the topic to a body of literature and make sense of the phenomenon.

A recent attempt to identify and classify reshoring motivations was made by Barbieri et al. (2018), who categorised the drivers into three classifications:

i. Managerial mistake
ii. External environment
iii. Internal environment

Barbieri et al. (2018) study suggests seven drivers in the managerial mistake. The frequently cited factor in literature is the *miscalculation of actual cost* and is related to the previous offshoring decisions (Barbieri et al., 2018; Stentoft et al., 2016; Srai et al., 2016). However, the researchers point out that the bandwagon effect is only listed in three reshoring studies (Barbieri et al., 2018), even though this factor has been documented as common in offshoring decisions, especially in SME's (Mariotti, 2009). Other factors are mistake correction, lack of knowledge in the host country, and lack of location planning (Barbieri et al., 2018).

The article has intensively discussed the external environment. In this category, the authors have identified 31 drivers, which were organised into seven categories. The most relevant one is costs, including logistics costs, energy costs, and more importantly labour costs. Also, the most cited

sub drivers were quality related issues, production and delivery related problems, and the labour costs differences between host and home country. Other factors are listed in *Table 2*.

The internal environment category includes 27 reshoring drivers. These are mainly firm-specific factors such as access to resources, coordination and communication costs, production management, and supply chain disruption (Barbieri et al., 2018). These findings, connected with the external environment drivers and managerial mistake, confirms the complexity of manufacturing reshoring strategies (Barbieri et al., 2018). Thus, Barbieri et al. (2018) indicates that reshoring is the result of decision making either based on internal factors (proactive), or caused by external forces (reactive), or both.

The limitation of this study is that it assumes the reshoring phenomenon must be based on corrections for previous managerial decisions (Barbieri et al., 2018). Therefore, the authors show that the managerial mistake category is the main element for the driving factors of reshoring. This view is different from Robinson & Hsieh (2016) study suggesting that reshoring is not a corrective mechanism and instead is an entirely voluntary strategy aiming to increase competitive advantages through customer satisfaction and sustainability, especially in the UK. Thus, Barbieri et al. (2018) research can be well considered in relocation based on corrective perspective for offshoring mistakes. Since this is a recent study based on a systematic literature review, the authors have an extensive list of motivations. However, this research views the motivations listed in Barbieri et al. (2018) study are limited to corrective managerial reshoring decisions of previous location strategies. In line with Wiesmann et al. (2017), this study interprets the reshoring drivers regardless of either driven by corrective or voluntary decisions.

A study conducted by Wiesmann et al. (2017) suggested an alternative approach. The authors categorised the reshoring drivers based on theoretical analysis and divided them into five clear aspects. First, the *global competitive dynamics* are general sets of variables, unpredictable, that can occur in any location (Wiesmann et al., 2017). Normally, these variables are compared against each other when making international manufacturing location decisions but are believed

to change over time (Wiesmann et al., 2017). In the same vein, Ellram et al. (2013) highlight the need to recognize that the attractiveness of a location is specifically related to the differences of the global variables. The *global competitive dynamics* sub-drivers influencing the reshoring decisions have been initially identified in Tate et al. (2014) study, and these are the following:

- Changes in the global economy
- Political risks
- Eroding comparative advantages
- Tax rates and labour costs
- Instability in exchange rates
- Increased competition on resource assets
- Psychic distance

Unlike Fratocchi et al. (2014) study that summarised these factors into two drivers only: global crisis and government incentives. Wiesmann et al. (2017) research provides a more detailed set of factors under this category.

Second, the *host country* category includes specific factors only available in the host country (Wiesmann et al., 2017). Usually, offshoring decisions seem to be based on those factors and eventually emerge as essential aspects of the manufacturing location decision. Wiesmann et al. (2017) has identified the host country sub-factors into the following:

- Diminishing growth opportunities,
- Low quality
- Theft of intellectual property, and patent enforcement.
- High employee turnover
- Risk of a bad reputation due to supply chain malfeasance.

In this section, Wiesmann et al. (2017) highlight that it should be considered that some factors, such as quality, are measurable. Other factors, such as the risk of losing supplier knowledge, are

hard to quantify even though they still represent a significant impact on business operations (Wiesmann et al., 2017). It should be noted that the theft of intellectual property, and patent enforcement factor is believed to be more present in countries with poor public regulatory systems and regulations (Toffel et al., 2014). Also, the risk of a bad reputation due to supply chain malfeasance is considered troublesome for known firms, especially business-2-consumer firm, who rely on their reputation and brand image to achieve a bigger audience (Toffel et al., 2014). A famous example is the bad work conditions of Nike manufacturers in Asia and their scandal of employing underage workers (Campbell, 2000).

Third, *Home country* factors are most of the time recognized after the manufacturing is moved offshore (Wiesmann et al., 2017). Manufacturers realize that some market aspects are more appealing in the home country than in the host country (Wiesmann et al., 2017). When the company considers reshoring the business operations, the home country factors should be carefully analysed. This is because overall market characteristics change over time (Mirabeau & Maguire, 2014). An example is the business regulations and laws (Wiesmann et al., 2017). Also, these changes are not usually negative. For instance, recent years have seen the manufacturing industry in developed countries improving remarkably, especially with automation that enhanced productivity (Bailey & De Propris, 2014). Eight driving forces were identified in the home country by Wiesmann et al. (2017):

- Political regulation to encourage domestic production by reshoring has been a commonly cited driver in the literature.
- Promote community
- Access to qualified personnel. It should be noted that the personal competencies could be both a driver and a barrier in the host and home country.
- Improved automation reduces the importance of labour cost advantages and makes home countries – developed countries – more attractive.

- Higher productivity and work ethics
- Increase awareness of the environmental impact
- Sustainability
- Brand image made in "XX" has become an essential factor as it represents a key aspect of improved quality.

The fourth category is the *supply chain* issues (Wiesmann et al., 2017). The Offshoring decisions may cause dramatic damages in the firm supply chain (Wiesmann et al., 2017). This is usually caused by long distances, which makes the coordination, control, and R&D a more complex task for the firm (Barbieri et al., 2018; Wiesmann et al., 2017).

- Innovation, research, and development
- High coordination costs
- Disruption in supply chains
- Delivery issues
- Difficulties to match production (supply) and consumption (demand) volumes
- Transportation issues including high demands and shortage
- Inability to provide the services related to the product
- Increased demands on customization of a product
- Difficulties due to the physical and mental distance

Finally, the *firm-specific* factors can either be in favour of the firm or against it (Wiesmann et al., 2017). Unlike other categories, the firm-specific factors are found to have more barriers than drivers, as shown in *Section 2.5*. The sub-drivers under this category are as follows:

- Wrong estimation of benefits and risks in the offshoring decision.
- Lack of knowledge and information about the host country while making offshoring decisions.
- Bandwagon effect

- Over-estimation of cost savings when making offshoring decisions.

The authors have attempted to explain the drivers from a dynamical perspective. However, the dynamic explanation was limited to the global competitive category. Another limitation of the study is that the theoretical foundation is based on the OLI model, Internationalisation Theory, TCE, and RBV, which are theories standing for rationality. In addition to this, the drivers identified by Wiesmann et al. (2017) are based on a systematic literature review, which is limited to a small sample of articles, explained by the novelty of this topic. However, the authors have classified the drivers into five precise dimensions that include several market sub-driver factors. In line with Engström et al. (2018), this research believes Wiesmann et al. (2017) have clearly categorised the factors of reshoring, and this research follows this classification to explain the drivers through a dynamic perspective that considers the environment uncertainties from a UK context.

To sum up, the drivers of reshoring have been reasonably discussed in the existing body of literature. The literature has identified a large set of drivers that should be taken into consideration in the reshoring decisions. However, authors such as Barbieri et al. (2018), Ellram et al. (2013), and Fratocchi et al. (2016) claim it is important to have a clear view of drivers based on different countries perspective. Martínez-Mora & Merino (2014) added that mixed method is essential in future research to support previous findings. In addition to this, only one research conducted by Robinson and Hsieh (2016) was based in the UK. The Robinson and Hsieh (2016) study was limited to the luxury retailer "Burberry", and the study drivers' factors were not listed within categories. According to Wiesmann et al. (2017), categorising the drivers of reshoring provides a better understanding of the motivation. From a theoretical perspective, reshoring drivers have been explained through rational and stable theories such as Dunning Paradigm, Internationalisation Theory, RBV, and TCE.

Hence, this research views reshoring as an emergent phenomenon that requires an understanding from an emergent perspective. This is because this location strategy emerges from environmental uncertainties (Tate et al., 2014; Ellram et al., 2013; Benstead et al., 2017). Also, the drivers of reshoring may change overtime because reshoring takes a long time to apply (Tate et al., 2014; Ellram et al., 2013). To date, the drivers of reshoring based on a theoretical foundation that considers the dynamics of the environment is not yet available in the literature. In addition to this, UK context knowledge is still lacking (Robinson and Hsieh, 2016).

Thus, this research aims to address the drivers from an emergent perspective using a theory that stand for the dynamic and unpredictability of the phenomenon. To fill the literature gap, the study follows Wiesmann et al. (2017) classification of the drivers. This is because as discussed above, the authors have provided an introductive knowledge on the drivers from a dynamical perspective. The limitations of the article are the dynamic explanation only covers global competitive category, and the article explained the phenomenon through theories standing for the bounded rationality. Therefore, this research aim is to expand the dynamic explanation to the other categories based on the UK context to broaden the knowledge of reshoring.

2.5 Barriers of reshoring

The barriers to moving the business operations back to the home country are under researched (Wiesmann et al., 2017). The literature lacks knowledge on the barriers of reshoring and how to overcome such barriers (Wiesmann et al., 2017). According to Wiesmann et al. (2017), reshoring is a new phenomenon, and the existing literature have focused on defining reshoring, and studying the motivations leading to this business strategy rather than on the issues and risks arising from this phenomenon.

Table 1: Barriers of Reshoring

Barriers of Reshoring					
Article	Perspective	Country	Methods	Barriers/factors	Conclusions/limitations
Reshoring drivers and	OLI, TCE, RBV	Sweden	Qualitative research	**Global environment**	The barriers are classified into five categories. The article is limited to the Swedish industry, and

barriers in the Swedish manufacturing industry. (Engström, Sollander, Hilletofth & Eriksson, 2018)			Case studies of four manufacturing firms in Sweden	Global economy Global politics **Host country** Market access Raw market access Legal regulation Labour Supplier Partnership **Supply chain** None identified **Home country** Labour market Raw materials Environmental regulations Cost of facility **Firm-specific** Customer Time Calculations Internal competency Capacity and investments Communication and leadership access IT integration Social responsibility Ownership of company Ownership of manufacturing facility Ownership of product blueprint	the findings cannot be generalised to other countries. The study is limited to the manufacturing sector, and the service sector is not included.
Drivers and barriers to reshoring: A literature review on offshoring in reverse. (Wiesmann et al., 2017)	OLI, TCE, RBV	USA	Systematic literature review	**1. Global competitive dynamics** Large economic differences Instability in exchange rates Large differences in resource availability **2. Host country** Risk of losing access to	The barriers of reshoring are classified into four categories. This article contributes by adding knowledge regarding the barriers of reshoring. A small sample of articles limits the paper. This article calls for future research to investigate the drivers and barriers in more detail and enrich the why and how questions related to reshoring.

				market and foreign distribution channels Risk of losing access to raw materials and components only available in the host country Risk of losing supplier knowledge **3. Home country** Stricter environmental legislation Lack or shortage of qualified staff Lack of flexibility in the labour market **4. Firm-specific barriers** Too late to go back Immature reshoring process Lack of capacity, resources, and internal competencies Lack of proper decisions support and data Lack of information and communication about reshoring within the company	
Manufacturing backshoring: A systematic literature review Stentoft et al., (2016)	X	USA	Systematic literature review	Lack of organizational Financial resources and Lack of a proper foundation for decisions (e.g., incomplete bill of materials and	The article is more focused on drivers and motivations of reshoring. Future research avenues in this article include a more in-depth analysis of barriers and how to overcome them.

				technical drawings)	

To the best of the researcher's knowledge, Wiesmann et al. (2017) study was the first to identify and classify the barriers of reshoring. The paper categorised the barriers into four dimensions. First, the global environment barriers that have a strong influence on the evolution and production of the firm (Bailey & De Propris, 2014). The influencing elements can be seen in the market economy, politics, exchange rates, and taxation criteria. For example, economic differences between two countries in their political and taxation legislation can make one country cheaper and easy to produce in (Bailey & De Propris, 2014). This applies to labour costs that are always argued to be the reason for offshoring manufacturing to gain cheaper access (Bailey & De Propris, 2014).

The second category is the host country barriers, which affect the firm in their daily business operations (Wiesmann et al., 2017). Yet these factors are hard to quantify (Engström et al., 2018). In other words, when the firm offshore then reshore the business production, it is confronted to possibilities of losing the know how to do skills and knowledge, especially when the offshoring manufacturing plant is not a property of the firm (Ellram et al., 2013). In addition to this, reshoring may lead to critical risk of losing access to foreign distribution networks, raw materials, and primary elements (Wiesmann et al., 2017). This can be explained by these latter being only available in the host country (Bailey & De Propris, 2014).

The home country barriers are related to the reasons driving the firm to offshore in the first place (Wiesmann et al., 2017). In this sense, the company should analyse the previous motivations and weigh the risk of returning to the home country. This category includes one main barrier, which is the accessibility to skilled and talented workforce (Bailey & De Propris, 2014; Wiesmann et al., 2017), and flexible labour (Canham & Hamilton, 2013). However, these studies have been based on USA data and scarcity of studies in UK has led to these findings not being confirmed from a UK perspective yet.

Under the firm-specific barriers, reshoring is considered a correction mechanism for previous offshoring managerial decisions (Kinkel & Maloca, 2009). However, the firm-specific related decisions are way too challenging to implement in real life (Wiesmann et al., 2017). The reasons

are related to the fact that the costs to reshore are very high, and it is fundamental for the firm to ensure they have an effective and efficient strategy to lower risks of failure (Canham & Hamilton, 2013).

A recent study conducted by Engström et al. (2018), based on the Swedish market, attempted to revise Wiesmann et al. (2017) listed barriers and added the *supply chain* category to the four existing categories. However, the authors did not find any sub-drivers under this category.

Thus, Wiesmann et al. (2017) argues that the barriers for reshoring are fundamental in practice comparing to the drivers. The authors claim the barriers should be highly considered when reshoring because they may cause reshoring failures if not assessed effectively (Wiesmann et al., 2017). Both Wiesmann et al. (2017) and Engström et al. (2018) articles suggest future research should address and explore the barriers in-depth to support future reshoring cases in their decisions. Therefore, this present research aim is to examine the barriers of reshoring to contribute to a better knowledge, especially that no study has tackled the barriers from a UK context. In addition to this, this study aims to provide an understanding that accounts for the uncertainties of the environment to add an efficient knowledge able to be effectively used by future reshoring managerial decisions.

2.6 Reshoring decision-making phase

The decision-making and implementation of reshoring is not well research (Barbieri et al., 2018; Fratocchi et al., 2014; Gray et al., 2013; Moradlou et al., 2017; Tate, 2014). The urgent call for further research in the decision-making and implementation has been mentioned by multiple scholars in their research avenues (Bals et al., 2016; Barbieri et al., 2018; Ketokivi et al., 2017; Stentoft et al., 2016; Wiesmann et al., 2017).

For instance, Bals et al. (2016) was the first research primarily conducted to frame future research avenues. The study suggests a conceptual framework of the different phases and steps of the decision-making and implementation of reshoring to propose future research arenas.

According to Bals et al. (2016), the reshoring phases are twofold, the decision-making phase and implementation phase.

The decision making of reshoring includes the following steps (Bals et al., 2016):

- Current boundaries situation
- The firm's current capabilities
- The ability to find and perform alternatives
- Data analysis is required to understand the firm's current situation and to
- Develop appropriate solutions for reshoring the business activities

The implementation phase of reshoring involves three steps (Bals et al., 2016):

- Disintegration from the host market, which can be achieved through exit modes
- Relocation back to the home country, which can be achieved through entry modes
- Re-integration into the new environment by engaging in value-creation activities

Although, the study provides a step-by-step mapping for the reshoring process through the decision-making and implementation, an explanation on how to apply the phases and steps is not included in the study. As mentioned earlier, this is because the objective of the research is to open new research streams concerning the reshoring decision-making and implementation (Boffelli et al., 2020). Although, it should be noted that this present research is responding to one of the future research avenues of Bals et al. (2016) suggesting this topic should be examined from a dynamic perspective.

A later study conducted by Gray et al. (2017) attempt to explain the decision-making from a heuristic perspective. The authors suggest that reshoring decisions should be established based on simplified heuristics that includes knowledge and experience rather than a rational evaluation (Gray et al., 2017). According to Gray et al. (2017), a rational evaluation that involves a complete analysis of costs related to offshoring and reshoring, such as infrastructure investments, direct incentives, and operation cost reductions, would slow the decision-making process. This

proposition aligns with the assumption of this research. However, the study knowledge of the "how" was limited into discussing alternative options to full evaluation of costs, for instance, tools and platforms to identify hidden costs, mostly not easily quantifiable factors such as IP risks and regulatory compliance cost (Gray et al., 2017). Among these platforms are "Access Costs Everywhere" available in acetool.commerce.gov, the "Cost Differential Frontier" available in cdf-oplab.unil.ch, and "Practitioner-led Organizations" such as ReshoringInitiative that provide a total cost of ownership estimator (Gray et al., 2017).

Recent studies such as Barbieri et al. (2018), Boffelli et al. (2020), Kaufmann et al. (2014), and Wiesmann et al. (2017) have investigated the reshoring decision-making and implementation aiming to provide more understanding on these phases. However, little knowledge has been provided on how the decision-making is made and how the implementation phase is applied (Barbieri et al., 2018; Gray et al., 2017).

In addition to this, the available knowledge that propose the reshoring decision-making and implementation should be purely based on a complete evaluation of costs and resources (Barbieri et al., 2018; Stentoft et al., 2016; Wiesmann et al., 2017) have been proved to be insufficient in explaining how firms reshore (Barbieri et al., 2018; Gray et al., 2017). For example, a study conducted by Boffelli et al. (2020) suggests the rational decision-making of reshoring includes three main steps:

(i) *Identification* of the problem through an assessment of the drivers and barriers (Boffelli et al., 2020)

(ii) *Development*, the firm should analyse the environmental conditions of their current location, such as the cost of goods, raw materials, technology, knowledge, and labour (Boffelli et al., 2020). In addition to the availability and access to resources, the quality of complementary products and services, customer buying behaviour, engagement with stakeholders, and administrative costs (Hernandez & Pederson, 2017; Ketoviki et al., 2017; Tate, 2014)

(iii) *Selection* of an action plan that consists of constructing a strategy that needs to be applied in the implementation phase (Boffelli et al., 2020).

The authors highlight the importance of the analysis to be based on both the host country and the home country characteristics (Boffelli et al., 2020). Analysing the home country as well is essential because when the firm was offshore, the environment has changed overtime (Wiesmann et al., 2017). However, according to Gray et al. (2017) and Kaufmann et al. (2014), a full analysis of costs based on the home and the host country is inefficient because it is time and energy consuming for the firm. Gray et al. (2017) explains that a complete assessment of costs and resources involves large database and information that are hard to evaluate, and even though the firm might attain a precise evaluation, it is very likely to change throughout the reshoring process (Gray et al., 2017). This is due to the uncertainties of the environment in which reshoring occur (Benstead et al., 2017).

Similarities to Boffelli et al. (2020) perception were found in Kaufmann et al. (2014) study that suggests the decision-making can either be rational or intuitive. Rational decisions are collected and managed through structured plans (Kaufmann et al., 2014). On the other hand, intuitive decisions are applied based on emotional processing, or experiences and expertise developed through learning (Kaufmann et al., 2014). As mentioned earlier, the decision-making in reshoring the firm operation involves accessing and evaluating a large scale of data and information (Gray et al., 2017; Kaufmann et al., 2014). According to Kaufmann et al. (2014), these data may be analysed using systematic plans based on rational decision-making that needs to be completed from intuitive decision-makers who are experienced. However, Elia et al. (2019) points out to the fact that the Kaufmann et al. (2014) study lacks clarification on issues related to decisions with high complexity, for example, in cases where the complexity exceeds the knowledge and the experience of the decision makers. Also, Elia et al. (2019) claims the study does not provide information on how can the firm deal with such complexities? In addition to this, Gray et al.

(2017) criticises this study by pointing to the problem of data and information availability in reshoring decision, which affect the decision-makers learning.

Another research conducted by Theyel et al. (2018) suggest the reshoring decisions should primarily be based on the answers to the following questions (Theyel et al, 2018):

- Did the firm lose product development capability due to the offshoring of the production?
- Did the firm reduce the engagement with its customers for customized products due to the offshoring of the production?
- Did the firm's product/service quality decline, or has there been an increase in the need to modify/adjust the product due to the offshoring of the production?
- Did the firm's ability to meet customer delivery negatively change due to the offshoring of the production?
- Is the firm's total cost higher than anticipated due to the offshoring of the firm activities?

The study explains that if the firm answers favourably to some or all of these questions, it means that it is suitable for reshoring the business activities back to the home country (Theyel et al., 2018). The authors suggest that the answers to the questions provide the decision-makers with a clear idea of their current situation by identifying the problem and how they can solve it (Theyel et al., 2018). One concern about Theyel et al. (2018) study is that it is limited to explain why firms should reshore, unlike how the authors describe these questions to be the decision-making process.

Hence, the studies available in the reshoring decision-making and implementation are lacking clarification on how to decide and how to apply the strategy of reshoring. Also, the literature has explained the reshoring from a rational perspective. Gray et al., (2017) study is the only one to shed light on the irrelevance of the rational in the reshoring process. In fact, the reshoring phases and steps occur in a continuously changing environment (Ciabuschi et al., 2019). This makes these decisions complex because of the uncertainties involved from the unknown situations

(Ciabuschi et al., 2019). Therefore, an explanation based on the dynamics of the environment is essential (Bals et al., 2016). Unlike the rational perception that stands for stability, the reshoring decision-making an implementation from a dynamic understanding provides an explanation based on flexibility (Mirabeau & Maguire, 2014). To data, the literature is still missing a clear understanding of the phases and step of the reshoring process that considers the uncertainties of the environment.

2.7 Implementation phase of reshoring

The implementation phase of manufacturing reshoring is significantly understudied in the literature (Barbieri et al., 2018; Fratocchi et al., 2015, Wiesmann et al., 2017). According to Bals et al. (2016), the implementation phase of reshoring involves the disintegration from the host country, followed by a relocation back to the home country and re-integration into the home country environment through engaging in other value-creation activities (Bals et al., 2016), as shown in *Figure 1*. However, as mentioned earlier, Bals et al. (2016) conceptual framework is not based on practical evidence or case studies; it is developed from the current literature review (Boffelli et al., 2018) with the key objective of framing future research avenues (Bals et al., 2016).

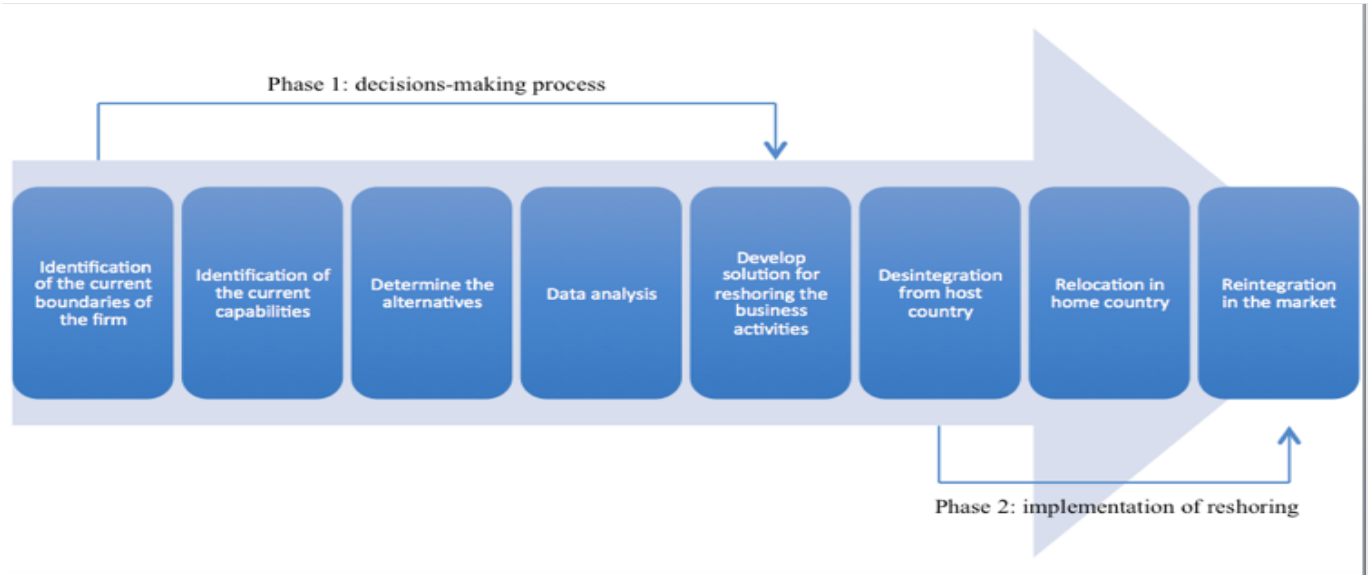


Figure 1: The Decision-Making Process and Implementation

Source: Bals et al., (2016)

2.7.1 Disintegration from the host country (Exit modes)

According to Fratocchi et al. (2014), the exit modes and entry modes are mainly determined by key factors such as the investment size, resource commitments, and managerial competences, as well as location and firm specific assets. For this reason, the entry modes applied in the offshoring decisions being interconnected with the firm performance and endurance determine the reversibility of the business operations (Ashan & Mustin, 2011; Song, 2014). More precisely, the exit modes are linked with how flexible and irreversible the previous entry modes are (Song, 2014). According to Ashan and Mustin (2011), international joint ventures and strategic alliances are more flexible and reversible than wholly-owned subsidiaries. In other words, the joint venture and alliance are suitable for dynamic environments, especially when large manufacturing are involved (Ashan and Mustin, 2011). This is because the wholly-owned subsidiaries require significant investments, usually very difficult to reverse (Song, 2014). In similar veins, Fratocchi et al. (2014) study suggested that firms not owning a plant in the foreign market may reshore easily compared to those that built a factory in the host country. In contrast, more accessible reversible investments are believed to be partially owned because of their smaller investment size (Song, 2014). The fact that the exit modes are part of the decision-making draws attention to how

these exit modes should be applied. This means what approach should the decision makers undertake while disintegrating from the host country. While reshoring occurs in an uncertain environment, this research assumes the exit mode being a phase of the decision-making and implementation should allow a margin of flexibility in their application. However, to the best of the researcher knowledge, no study explains these questions in the literature. Also, a UK context on irreversibility of ownerships from foreign countries back to the home country is not yet available in the literature.

2.7.2 Reintegration (entry modes)

Researchers have adopted different classifications to determine the entry modes (Wan et al., 2019). The Anderson and Gatignon (1986) study identified seventeen EM variables. These Ems variables were later developed by Hill et al. (1990) who reduced them to three main types: Licensing/Franchising, Joint Venture, Wholly-Owned Subsidiary. The entry modes can be differentiated into Export, Contractual and Equity modes (Root, 1994). These entry modes are determined by four elements: industry-related such as the market potential and technology specification; firm-related like the firm size, experience, capacity, and capabilities; country-related such as cultural differences, language, and political issue; project-specific factors like the drivers for entering a specific market (Wan et al., 2019). The literature on EMs proposes that the asset specificities considerably influence the entry mode choices (Brouthers & Brouthers, 2003; Fratocchi et al. 2014). Firms that have different resources, e.g., specialised assets, special know-how are more likely to choose entry modes with a higher level of control and equity, e.g., proprietary technologies, tacit know-how, specialised assets, reputation (Brown et al., 2003; Ekeledo & Sivakumar, 2004; Mutinelli & Piscitello, 1998; Wan et al., 2019). In contrast, SMEs primarily characterised by fewer resources and capabilities are more likely to choose non-equity entry modes, especially when uncertainties are high (Bradley & Gannon, 2000; Brouthers & Nakos, 2004; Li & Qian, 2008; Wan et al., 2019). The home and host country characteristics of

EM choice should be divided into host country effects, home country effects, and the distance between the two (Wan et al., 2019). The host and home country influence the EM in terms of market attractiveness, infrastructure (logistic and telecommunication), legislation and regulations, and availability of supply chain (Schellenberg et al., 2017). According to Brouthers (2002), firms penetrating strictly regulated countries such as China tend to use non-equity EMs. Similarly, host countries with higher rates of corruption are more likely to use non-equity EMs (Uhlenbruck et al., 2006). Regarding the distance between the host and home countries, it has been debated by many academics such as Arora & Fosfuri, (2000), Hennart & Larimo, (1998), Kogut & Singh, (1988) that high distance requires a non-equity EM. For the project-specific determinants of EMs, scholars such as Kim and Hwang (1992) and Rajan and Pangarkar (2000) argue that the strategic business drivers increase the likelihood of equity EMs if the motivations are mainly focused on the future international expansion and dealing with actual or potential global competitors. In the same vein, Tsai and Cheng (2002) indicate that market-seeking drivers, specifically expansion of sales in host markets lead to equity EMs. However, this understanding is limited to an ownership perspective. The issue is that ownership may change overtime due to market volatility (Dunning, 2013). Though, the implementation of the entry modes in reshoring from a dynamic perspective is not explained in the literature. A recent study conducted by Swoboda et al. (2015) show that there is evidence reshoring firms tend to implement the same EM adopted in the previous location strategy for reshoring, which is explained in their study by the dependence concept path (David, 1985). The path dependency concept means that the firm tends to repeat the previous strategic choices in their future decisions (David, 1985). Nevertheless, the study did not provide details on the efficiency of this approach. Multiple limitations are in fact viewed from this finding. First, reversing previous decisions might be coupled by correcting previous mistaken decisions (Barbieri et al., 2018), and if the firm implement the same entry modes adopted in previous mistaken decisions, this means the same errors may be repeated. Second, reshoring occurs in a dynamic environment and unpredictability

can happen during the process of the strategy (Boffelli et al. 2018), which may affect the entry modes intended to be applied based on previous offshoring decisions. Though, this research proposes the entry modes to the home country should be explained from an emergent perspective, which does not require adopting decisions based on previous experiences but rather involve flexible approach able to be adapted to environment uncertainties.

2.8 Review of the conceptual frameworks existing in the literature

This section critically reviews the reshoring conceptual frameworks available in the literature. Mainly, the literature has focused in framing the future research avenues of the reshoring phenomenon through conceptual frameworks (see, Bals et al., 2016; Foerstl et al., 2016). Other conceptual frameworks have focused in exploring the motivations of reshoring such as Foerstl et al. (2016) study. Only few conceptual frameworks have attempted to explain the phenomenon by exploring both the "why" and "how" such as Benstead et al. (2017) and Boffelli et al. (2018). Theoretically, the available conceptual framework have been explained using theories standing for stability, e.g., Transaction Cost Economics (TCE), Organisation Buying Behaviour (OBB), and Contingency Factors.

The conceptual framework suggested by Foerstl et al. (2016) in their article "Reshoring and insourcing: drivers and future research directions" intended to provide an understanding on why reshoring happens based on TCE and OBB theoretical explanation.

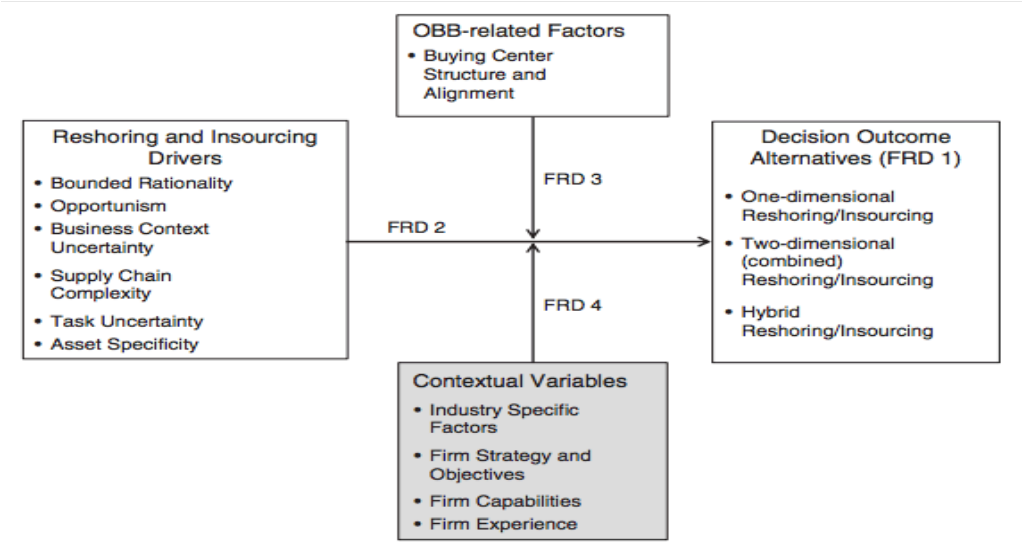


Figure 2: Conceptual Framework of Foerstl et al. (2016)

The article objective was to identify the drivers of reshoring and provide a complete understanding of the factors driving the manufacturing reshoring and insourcing. Foerstl et al. (2016) has categorised the drivers of reshoring, based on Transaction Cost Economies (TCE) and Organisational Buying Behaviour (OBB) theories, into two main categories: Human and behavioural factors (HBF) and Transactional factors (TF). The bounded rationality and opportunism are sub factors of HBF, while the business context uncertainty, supply chain complexity, task uncertainty, and asset specificity are sub factor of TF. A detailed critical evaluation of these drivers is available in *Chapter 2, Section 2.4*.

The article contributed into explaining the driving factors and sub-factors of reshoring through TCE and OBB, which explains this phenomenon from a behavioural and transactional lens (Williamson, 1975, 1985, 1998). According to Foerstl et al. (2016), the TCE (Coase, 1937) explains why firms produce some of their activities internally and source others from the foreign markets based on a cost evaluation. The OBB approach acts as a complementary theory to TCE that allows the firm to identify the consumer buying behaviour (Foerstl et al., 2016). Though, the article is limited into explaining the motivations of reshoring and does not provide a full understanding of the reshoring process. However, the paper main goal was to highlight the

literature gaps in the decision-making process. The authors have referred to those future research avenues as *FRA1, FRA2, FRA3*, and *FRA4*.

FRA1 suggests reshoring and insourcing decision should clearly specify the permutations studied in the location and ownership changes. In particular, the article suggests examining international value distribution through examining the regional changes such as reshoring or nearshoring within and around China, India and Eastern Europe. This involves exploring the most frequent destinations of manufacturing designed for value creation tasks (Foerstl et al., 2016). *FRA2* propose future research should assess nonquantifiable drivers such as supply chain complexities (Foerstl et al., 2016). To date, the literature has focused on cost related drivers. To broaden the reshoring debate, the paper suggests the importance of tackling all aspects driving managerial decisions (Foerstl et al., 2016). *FRA3* indicates deeper research should tackle how OBB factors affect reshoring and insourcing decision-making and the actors involved in the decision-making (Foerstl et al., 2016). Concerning the OBB, the paper shed light on the importance of buying centres, which are considered fundamental in structuring the reshoring and insourcing decisions (Foerstl et al., 2016). The study show future research should explore the role these buying centres can have on supporting the reshoring decisions. Also, Foerstl et al. (2016) states the decisions-making and implementation of reshoring is mostly managed by cross-functional teams that qualify and implement the decisions based on multiple aspects such as their knowledge, experience, and behaviour, e.g., risk takers. In this vein, Foerstl et al. (2016) future research segment point out to the importance of investigating who should be involved in those decisions, as well as the impact of their knowledge, experience, and behaviour on the reshoring decisions process. *FRA4* provide interesting avenues for future research, which is related to the moderating role of industry, strategy, capabilities, and experience (Foerstl et al., 2016). For example, the technological capabilities of an industry may impact the location decisions and favour reshoring (Foerstl et al., 2016). For instance, the need of a firm to switch to smart-robot process automation can lead to reshoring decisions.

The first conceptual framework that include the reshoring process element belongs to Bals et al. (2016) in their article "Exploring the reshoring and insourcing decision-making process: Toward an agenda for future research" conceptual framework.

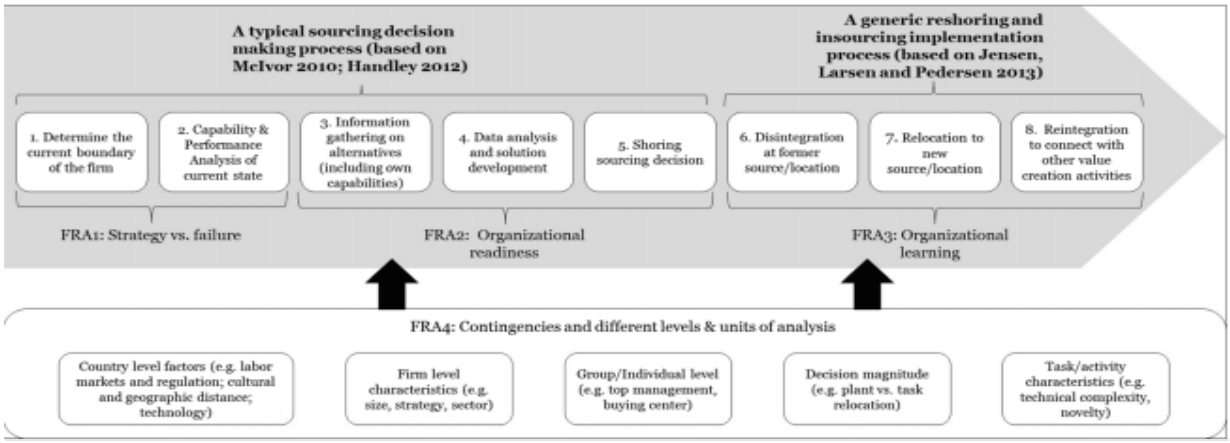


Figure 3: Conceptual Framework by Bals et al., (2016)

Bals et al. (2016) study has founded the conceptual framework of the reshoring process by combining Mclvor (2010) and Handley (2012) study to determine the reshoring decision-making process, and Larsen and Pederson (2013) study to determine the implementation phase. As mentioned previously, the decision-making includes five steps: (1) Determining the current boundary of the firm, (2) capabilities and performance analysis of the current state, (3) information gathering on alternatives, (4) data analysis and solution development, (5) shoring sourcing decision (Bals et al., 2016). The implementation phase includes the disintegration of former source/location, relocation to new source/location, and reintegration to connect with other value creation (Bals et al., 2016). The authors have explained each step briefly, and not enough details were given on how the company should implement each step. The research was conducted to frame future research avenues (FRA), as shown in *Figure 3*. Since the reshoring phenomenon is in its early stage, Bals et al. (2016) discussed the future research streams shown in *figure 3* as *FRA1*, *FRA2*, *FRA3*, and *FRA4*.

FRA1 propose future research to examine the differences between voluntary reshoring decisions versus reshoring as a reaction to failure. In this segment, Bals et al. (2016) points out that the

literature failed to account for unexpected changes and challenges related to economic, political, and both tangible and hidden costs, all of which affect the reshoring decisions (Kinkel and Maloca, 2009; Ellram et al., 2013; Larsen et al., 2013). The authors highlight the importance of tackling the topic considering the challenges of predicting future environmental dynamics (Handley and Benton, 2013). *FRA2* states future researchers should explore the role of firm readiness in reshoring and/or insourcing. While the firms' decisions to reshore is characterised by reasons driving the firm to engage in this strategy, Bals et al. (2016) assumes the organizational readiness offers a complementary perspective to reshore successfully. The firm might be eager to reshore and/or insource, but the readiness to reshore and/or insource necessitates that the firm evaluate their capabilities to handle the unpredictable outcomes of the decisions (Bals et al., 2016). This has been addressed in offshoring and outsourcing decisions from a firm-specific perspective, which has been captured in studies such as McIvor (2009, 2013). However, for the reshoring decision-making this has not been studied yet (Bals et al, 2016). *FRA3* draws attention to the impacts of learning in reshoring and insourcing. The literature suggests location decisions previous experience has strong positive implications on future relocation strategies (Bals et al., 2016; Jensen et al. 2013; Maskell et al. 2007; Tate et al. 2009). In this vein, Lewin et al. (2009) argue that the firms with intensive offshoring experience are more likely to implement more offshoring strategies. Parallel arguments should be studied for reshoring according to Bals et al. (2016). *FRA4* propose future research should examine the reshoring from a contingency factors' theory such as the company size, growth or, countries of operation, ownership structure, product, and supply chain structure. The level of applicability of these contingency factors and its interconnection with reshoring must be investigated to build a deeper understanding of this business strategy (Bals et al., 2016).

Benstead et al. (2017) article “why and how do firms reshore? A contingency-based conceptual” have explained the reshoring process based on the contingency theory, as shown in *figure 4*.

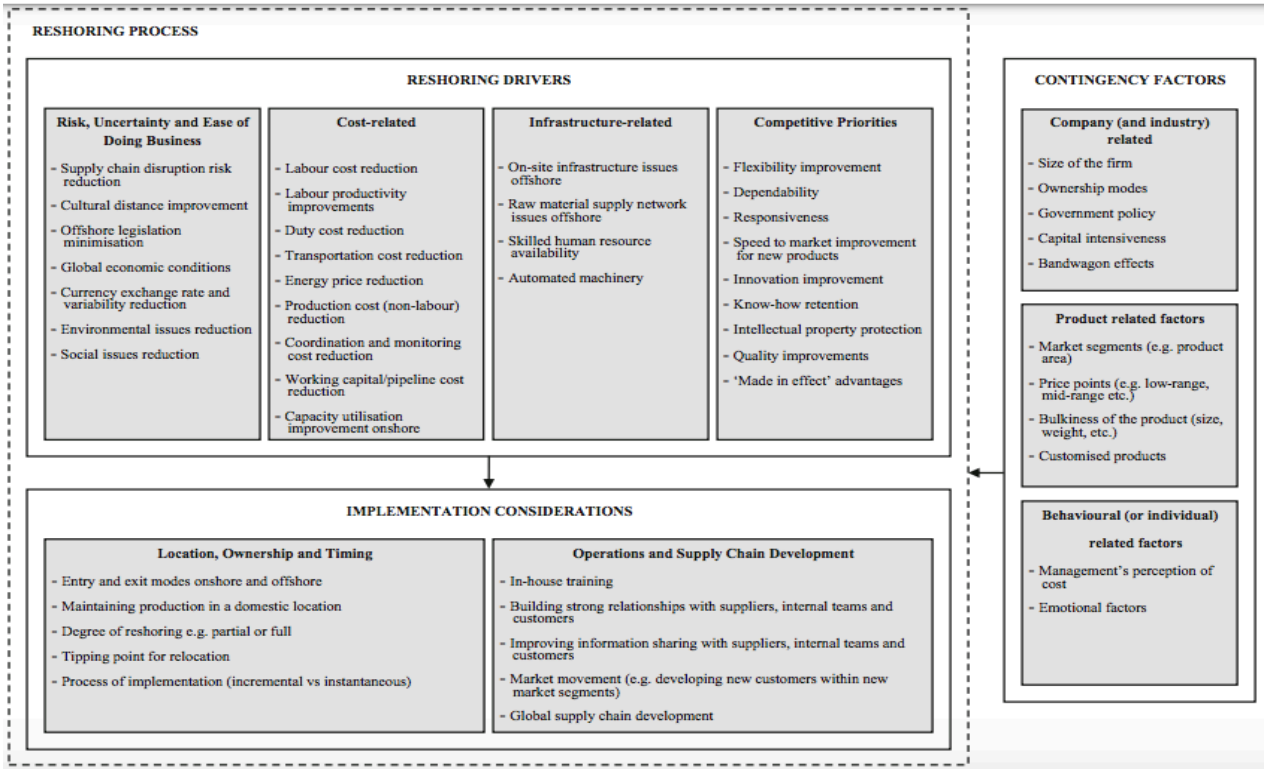


Figure 4: Conceptual Framework by Benstead et al., (2017)

This conceptual framework includes why and how firms reshore in the UK. The study is based on a case study of "Cushion Co Ltd", a UK company that reached a tipping point to reshore because the drawbacks from their offshore operation in China started building up affecting their operations. The paper highlights the importance of timing in the relocation of the company back home (Benstead et al., 2017).

Benstead et al. (2017) is the first study to rely on the contingency factors to identify the motivations driving the reshoring phenomenon and implementations of the strategy. Their conceptual framework responds to one of Bals et al. (2016) research avenues on studying reshoring from the contingency theory perspective. The paper has developed the conceptual framework based on previous studies on offshoring, which have used the contingency factors to explain offshoring location strategies in depth. The conceptual framework is comprised of three elements. First, the reshoring drivers where the authors have initially identified 29 driving factors for reshoring from the literature review. These factors are falling into four categories, (1) Risk, uncertainties, and ease of doing business, (2) cost-related drivers, (3) infrastructure-related

drivers, and (4) competitive priorities. Based on their case evidence, the authors refined the drivers into 20 factors (Benstead et al., 2017), as shown in *Figure 4*.

The second phase, the implementation considerations, is categorised into "location, ownership, & timing" and "operations & supply chain development" (Benstead et al., 2017). The study contributed into adding knowledge under both categories based on "Cushion Co" case evidence, which are "tipping point for relocation," "market movement", "and process of implementation, incremental versus instantaneous," and "global supply chain development" (Benstead et al., 2017). However, the implementation phase is explained through factors similar to the driver factors rather than through steps and how to implement each step. This limits the implementation understanding to the factors involved in this phase; it does not provide a comprehension of the different steps required in this phase such as exit modes and entry mode (Benstead et al., 2017).

The contingency factors were the third element described in the conceptual framework. The contingency-based theoretical approach includes industry related factors, product specific factors, and behavioural related factors. Authors such as Barbieri et al. (2018), Ellram et al. (2013), and Wiesmann et al. (2017) have included those elements in the identification of the drivers of reshoring. However, Benstead et al. (2017) identified these drivers as push or pull factors for reshoring. The paper assumes that reshoring may not be suitable for every company or product (Benstead et al., 2017). Thus, the suitability of reshoring can be assessed based on the contingency factors of the firm (Benstead et al., 2017). As shown in *Figure 6*, these factors include the size of the firm, ownership modes, capital intensiveness, government policy, bandwabon effect, bulkiness of the product, market segment, price points, customisation, management perception of costs, and emotional factors (Benstead et al., 2017). However, the study understanding on the decision-making process and implementation is limited to identifying the driver factors of reshoring (Benstead et al., 2017). This cannot be considered as a full process of the decision-making of reshoring (Bals et al., 2016). Moreover, the drivers listed in the framework are missing many other factors compared to drivers identified in other studies such as

Barbieri et al. (2018) and Wiesmann et al. (2017), as discussed in *Chapter 2, Section 2.4*. The second limitation of the study is that the implementation phase is based on the contingency factors only. The authors categorised it into two broad categories "Location, ownership, & timing" and "Operation and supply chain development" with no instructions on how to apply each of the categories. The elements fail to show the process of implementation such as the steps and what is requires under each step (Bals et al., 2016). In addition to this, the third limitation of the conceptual framework is that it does not examine the barriers and risks of the reshoring process. However, identifying the barriers and risks in reshoring process is considered important in ensuring a successful relocation of the business operations (Wiesmann et al., 2017). Finally, the conceptual framework does not consider the uncertainties of the environment. The authors have evaluated the reshoring process based on a stable assumption, which does not consider the environment unpredictability and dynamics (Ellram et al. 2013; Gylling et al. 2015; Fratocchi et al. 2016).

The article methodology was relying on one case study, which the authors of the article claimed cannot be generalised. In similar vein, Voss et al. (2016) suggest a single case study is full of limitations and cannot be generalised. Thus, the paper proposes future research segments, for example, assessing the generality of the study findings using a large-scale survey, examining the drivers and contingency factors differences in offshoring versus reshoring decisions, and investigating the impact of Brexit in reshoring decisions in the UK (Benstead et al., 2017).

Boffelli et al, (2018) have developed a conceptual framework in their article "Reshoring decision-making and implementation processes: A multiple-case study" by refining Bals et al., (2016)

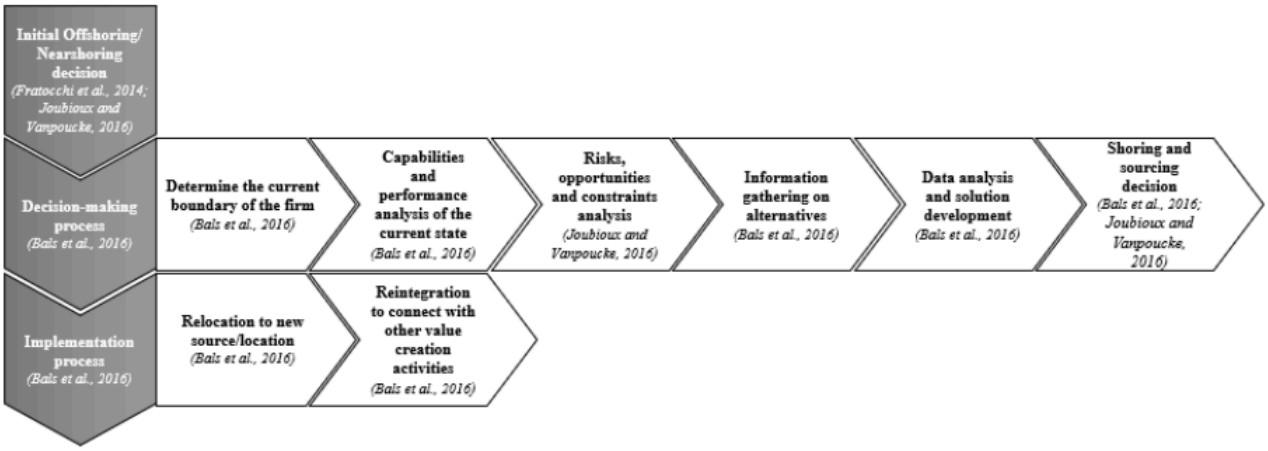


Figure 5: Reshoring Process Conceptual Framework by Boffelli et al. (2018)

The article of Boffelli et al. (2018) proposes a conceptual framework for reshoring decision-making and implementation phase. The article sheds light on the main phases, actors involved in each phase, and the obstacles faced (Boffelli et al, 2018). The study is based on three case studies from Italy. The conceptual framework developed by Boffelli et al, (2018) has two phases. First the decision-making which is constituted by six steps: (1) Determine the current boundaries of the firm, (2) Capabilities and performance analysis of the current state, (3) Risk, opportunities, and constraints analysis, (4) Information gatherings on alternatives, (5) Data analysis and solution development, (6) Reshoring and sourcing decisions (Boffelli et al, 2018). The second phase is comprised of relocation to new source/location, and reintegration to connect with other value creation activities (Boffelli et al, 2018). The paper concluded by claiming the reshoring phases appears to be a blurry phenomenon that is hard to explain (Boffelli et al, 2018). This is due to the lack of management, data collection, and recordings of information in the firms before, during, and after reshoring (Boffelli et al, 2018). However, the study highlights the importance of considering the decision-making and implementation of reshoring as a dynamic decision that requires a flexible process (Bals et al., 2016). The flexible process is explained by the uncertainties and risks involved with this business strategy (Boffelli et al, 2018).

The study contributed to reshoring literature by starting to generate and collect information through case studies (Boffelli et al, 2018). The paper suggested the data analysis especially cost,

sales growth, and benefits are important in the decisions phase (Boffelli et al, 2018). Also, the firm coordination of the value chain activities such as R&D, production, and purchasing should be properly managed and maintained (Boffelli et al, 2018). This facilitates the data collection, and eventually the implementation of the reshoring decision (Boffelli et al, 2018). The study has also examined an unfilled gap in literature concerning the identification of stakeholders involved in the decision-making and implementation process of reshoring (Ketokivi et al., 2017). In this vein, the authors highlighted the importance of human management in the reshoring implementation and referred to the choice of human resource as fundamental for ensuring a successful reshoring (Boffelli et al, 2018). In this context, the paper suggests the reshoring decisions are managed internally by the CEO and management team, and in some cases the decisions are managed with external help such as reshoring organisations and government (e.g., ReshoreUK), especially in the case of SMEs (Boffelli et al, 2018). In addition to this, the paper claims that learning has an impact on the implementation phase only and not the decision-making process (Boffelli et al, 2018). This is in contradiction with Bals et al., (2016) and Gray et al. (2013) view which suggest that decisions are made by human and are then impacted by their level of knowledge and learning.

The future research avenues suggested by Boffelli et al. (2018) article advise future researchers to examine the decision models for reshoring from an uncertain and risky perspective. The paper has also suggested future researchers should investigate the human resources impact on reshoring decision-making and implementation process (Boffelli et al, 2018). This study aim is to address both future research segments.

From the above discussion, we can conclude that the conceptual frameworks available in the literature do not provide an understanding of the complete phases of the reshoring decision-making and implementation. The literature is still lacking a conceptual framework for reshoring process that combines the drivers, barriers, decision-making, and implementation phase, and that

explain what is involved in each phase and different step. In addition to this, an understanding that considers the dynamics of the environment is not yet available.

2.9 Emergent Theory in reshoring (ET)

According to Mintzberg & Waters, (1985), a formation of a strategy within a firm has a goal of shaping the future of the organisation. It is not surprising to acknowledge that most of these decisions are based on an analytic process (Mintzberg & Waters, 1985) that establish long term actions and plans that needs to be fully formulated before the implementations phase (Porter 1980). Reshoring being one of the important strategies to shape the firm future has fallen into this commonly used rational process. The rational actions and plans include analysing the internal and external circumstances of the firm through assessing the costs and resources (Ansoff, 1980). The rational understanding assumes the environment is certain and predictable and everything is intended and planned (Argyris 1977; Brown and Eisenhardt 1998) and acts as if the external environment is a minor input in the business strategy (Mintzberg, Ahlstrand, and Lampel 1998). This is mostly how the literature is explaining the reshoring process (see Bals et al. 2016; Boffelli et al. 2018). However, Gray et al. (2017) findings show the rational decisions in reshoring are time and energy consuming because it involves a large database that needs to be analysed throughout a long period of time, which is sometimes unrealistic.

Though, Mintzberg & Waters (1985) suggests establishing firm strategies through analytic process as having serious limits, and the firm strategies needs to be viewed from a different angle and perspective. The authors propose the management strategies should follow an emergent process, in order to be able to continuously adjust the strategies to the market volatility (Mirabeau & Maguire, 2014). This is assumed in this research to be more appropriate for the reshoring process. This is because as stated by Bals et al. (2016), Boffelli et al. (2018), Gray et al. (2017), and Wiesmann et al. (2017), reshoring is a phenomenon that emerge from environmental dynamics that causes internal or external alterations leading to the relocation decisions. And as stated by Kinkel and Maloca (2009), Ellram et al. (2013), Gylling et al. (2015), and Fratocchi et

al. (2016), reshoring strategy are applied in a dynamic environment. The emergent theory proposes a flexible strategy that emerges within the firm with abilities to adjust to any turbulence (Brown and Eisenhardt 1998; Mintzberg & Waters, 1985). The firm goals remain an objective the management is working toward, but the emergent strategy propose a flexibility to adjust the strategy to those goals by considering any emerging opportunities or priorities (Mirabeau & Maguire, 2014). In this case, Mintzberg and Waters (1985) propose the firms' openness to the dynamic and emergent strategy enables the decision-makers to act before everything is fully analysed and understood, this is to respond to an emerging reality rather than focusing on a stable fantasy. And as a result, the firm improves the competitive responsiveness (Mintzberg and Waters, 1985).

In their article, Mirabeau & Maguire (2014) claim the emergent strategy is not commonly used to explicitly explain a phenomenon, despite the important recognition of its efficiency in business studies. Perhaps this explains why still to date the reshoring strategy has not been explained through the emergent theory. Yet, the reshoring process requires a strategy applied through different phases and throughout a long time. According to Mintzberg and Waters (1985), formal and rigid strategies lie on a continuum, theoretical, practical limited behaviours, and analytical plans, which are almost impossible to be maintained in short and long-term due to environment unpredictions. Moreover, Mintzberg and Waters (1985) point out the firms' adopting rational strategies often end up changing the planned strategy in the implementation phase because the firm did not consider this or that. In the reshoring strategy, a rational strategy would make the implementation complex and difficult (Gray et al., 2017). Since, the reshoring strategy includes different phase and is processed through a long period of time, there is a big probability changes may occur (Fratocchi et al., 2016). To respond to these changes the emergent strategy provides a central-goal direction with a sense of adaptable flexibility and responsiveness (Mintzberg and Waters, 1985). Thus, the emergent strategy involves learning what works for the firm at various stages (Mintzberg and Waters, 1985). According to Gray et al. (2017), learning is a vital

component in reshoring process. However, Gray et al. (2017) study limited their explanation into a behavioural aspect of managers and decision-makers. Conversely, the emergent theory suggests learning comes with each action, pattern or consistency leading to a different action and pattern and this continues in cycles (Mintzberg & Waters, 1985). Building an emergent strategy happens through figuring what works the best through the previous learning and experiences in the firm. The management benefit from learning what does work and what does not work and what needs alteration (Mintzberg and Waters, 1985). In this way, the emergent strategy involves data storing and learning from previous information and learning (Mintzberg and Waters, 1985). In addition to this, the emergent strategy has a crucial feature and that is order through consistency in actions (Mintzberg & Waters, 1985). This means that the firm must have continuous cycles of studying the situation, making the decisions, and going forward.

In practice, the emergent theory means the management and decision makers' strategies are open, flexible, and responsive (Mintzberg & Waters, 1985). This also means that the management and decision makers are open for new perspective and are willing to learn and adapt (Mintzberg & Waters, 1985). This type of behaviour is crucial in environments that are complex, uncertain and unstable because it allows the decision-makers to consider other opportunities that may be beneficial to the firm (Mintzberg & Waters, 1985). However, as mentioned by Mirabeau & Maguire (2014), when implementing an emergent strategy, the firm should ensure the employees are in an environment that encourage and elevate innovative ideas as they emerge, and the firm can work on the suggested ideas that are looking more promising. This means that the people involved in the reshoring process are working in an environment that encourage sharing ideas and opinions, and communication is easy between involved parties.

In another hand, Bodwell & Chermack (2010) explained the application of emergent theory in a firm as "much coming from little". The emergent strategy comes from recognising the conditions around us at the same time increase creativity, innovation, and creation of new paths and ways within the firm (Bodwell & Chermack, 2010). Case evidence for the efficiency of the emergent

theory is a hospital has pursued an emergent strategy rather than a rational strategy. So instead of buying a long-term care facility, the hospital bought an assisted living facility, and continued to expand and buy physician practices (Bodwell & Chermack, 2010). The actions were implemented one at a time but accumulated as a pattern that led to the firm to be integrated with other organisations. Thus, as mentioned by Eisenhardt et al. (1998), improvisational approaches lead to an emergent strategy. This happens through the management quickly spotting the opportunities and advantages provided by the convergence of strategy, external environment, capabilities, and luck, then acting rapidly to take benefit from the advantage of the strategy created and building from it a platform that combines advantages and opportunities into a rule-breaking killer strategy (Eisenhardt et al., 1998).

2.10 Conclusion

To conclude, the theories discussed in this section intend to explain the reshoring phenomenon, but do not provide a complete understanding of this strategy. The reshoring phenomenon can partially be understood through the rational theories discussed above, which is limited to "*why"* and "*where"* related understanding. The study in hand does not require a theoretical understanding of the "where" because the reshoring location decisions involve going back to the home country.

First, reshoring is a new topic with many terminologies that are used to refer to the same phenomenon such as backshoring, backreshoring, nearshoring, and onshoring (Wiesmann et al., 2017). The present research follows the terminology and definition used by several academics, which perceives reshoring as returning the business activities from the host country to the home country, regardless of the governance modes (Fratocchi et al., 2014; Wiesmann et al., 2017). Reshoring is usually caused by environment, political, or economical unpredictability, which change the expectation of the firm requiring a shift in the business strategy (Wiesmann et al., 2017). Though, in reshoring strategies, the firm is required to know "why" and "how" to reshore.

The “why” have been theoretically explained in the literature combining different approaches (Fratocchi, L. et al., 2016; Martínez-Mora & Merino, 2014). The internationalization theory (Buckley & Casson, 1998) and Dunning’s paradigm (Dunning, 1980, 1998) explain reshoring through a change in ownership, location, and internationalisation advantage. Both theories show that reshoring is a strategic decision driven by global economy clusters (Casson, 2013), which affects the environment in the host location (Fratocchi et al., 2016), and eventually affects ownerships (Martínez-Mora & Merino, 2014). The Uppsala Model has multiple similarities with the OLI paradigm and the Internationalisation theory and explains reshoring through two dimensions, the change variable and the state variable, which provides an understanding of why reshoring happens through an alteration of the ownership, location, and internationalisation advantages (Johanson & Vahlne, 1990; Johanson & Vahlne, 2013). The Uppsala Model adds the importance of the relationships in the home country such as relationships with suppliers, which may have an influence on the return to the home country. In another hand, the TCE theory suggests reshoring decisions are caused by changes in transaction costs, which in most cases are caused by increased costs in the host country such as labour costs, coordination costs, and logistics costs (Kinkel & Maloca, 2009; Martínez-Mora & Merino, 2014). The RBV explains reshoring is caused by the firm inability to use, exploit, or create value of the host-country resources (Canham & Hamilton, 2013). This happens when the competition rises in a specific market, causing a fall in resource availability and increasing resource-related costs. However, Baraldi et al. (2018) points out to the fact that reshoring activities from a resource standpoint are more complex, especially in volatile markets, and the dynamic capability theory explains this issue by providing continuous cycles of integrating, refining, gaining, and releasing resources to adapt to those changing markets (Wiesmann et al., 2017). Finally, the factor market rivalry proposes that reshoring is based on moving the business operation from low-cost countries to further low-cost locations (Tate et al., 2014). This theory explains the relocation decisions

through high competition and clarifies that the firm should relocate to other market where there is less competition (Tate et al., 2014).

Combining OLI model, internationalisation theory, TCE, and RBV, reshoring is explained by a change in the ownership, location, and internationalisation advantages, which affect the costs and resources of a firm, favouring the return to the home country (Wiesmann et al., 2017). These theories recognise that reshoring is caused by changes related to the market volatility and unpredictability (Boffelli et al., 2018). While, the reshoring emerges from dynamic environment filled with uncertainties, these theories do not take into consideration the environment dynamic but are rather based on stability. Whilst the "why" of reshoring can be stable for a short period of time; the driver factors are still faced with changes if the reshoring takes a long time to apply (Tate et al., 2014; Bals et al., 2016). Therefore, a theoretical explanation from an emergent perspective that considers the dynamics of the environment is more appropriate for this type of decision (Mirabeau & Maguire, 2014).

The "how" question is still lacking theoretical clarifications in the literature (Barbieri et al., 2018; Wiesmann et al., 2017). The same theories listed above have been used as an attempt to explain the decision-making and implementation; however, the explanation provided do not support the knowledge of how reshoring occurs (Barbieri et al., 2018; Wiesmann et al., 2017). For example, the internationalisation theory describes how reshoring happen through the entry modes only (e.g., joint ventures, alliances, joint, franchising, or licensing). However, the "how" in the reshoring process requires an understanding of the decision-making and implementation, which includes the "exit modes", "entry modes", and "reintegration to the home country" (Bals et al., 2016). The OLI model explains reshoring by gaining control over location through resources, marketing, efficiency, and asset advantages. The RBV and TCE explain the reshoring through an assessment and comparative analysis of the costs and resources between the host and home country. These theories do not explain the process of reshoring and how it occurs through the phases and step involved in the strategy. Even though, it has been stated in the literature that

combining the theories provides a full understanding of reshoring, the “how” is still not well explained through these theories for the following reason. The reshoring process involves different phases including identifying drivers, barriers, decision-making process, and implementation of reshoring (Bals et al., 2016). These phases occur in a dynamic environment and require a flexible approach, while these theories stand for rationality that assume the phenomenon is stable. Thus, the reshoring decision-making and implementation still lacks clarification from an emergent lens.

Chapter 3

Conceptual Framework

3.1 Introduction

To operationalize the ideas of the dynamic decision-making and implementation of reshoring framework, a conceptualisation is proposed. This section presents a conceptual framework that supports the study. The conceptual framework is a fundamental part of the empirical research (Voss et al., 2016). It aligns the information and current knowledge into an understandable and comprehensive explanation of the phenomenon (Voss et al., 2016). The conceptual framework is used as an illustration – linking key factors, concepts and variables, and their interconnections – through which the reader can visualize the researcher assumptions and understanding (Mile & Huberman, 1994).

3.2 Conceptual Framework

This research develops the ideas of the reshoring process through the drivers, barriers, decision-making, and implementation phase in a conceptual framework that present central ideas of reshoring, help to frame the research design, and ground the explanation of the phenomenon to the emergent theory. This conceptual framework follows Bals et al. (2016) decision-making and implementation process phases and steps.

3.1.1 Overview of the dynamical reshoring decision-making and implementation process

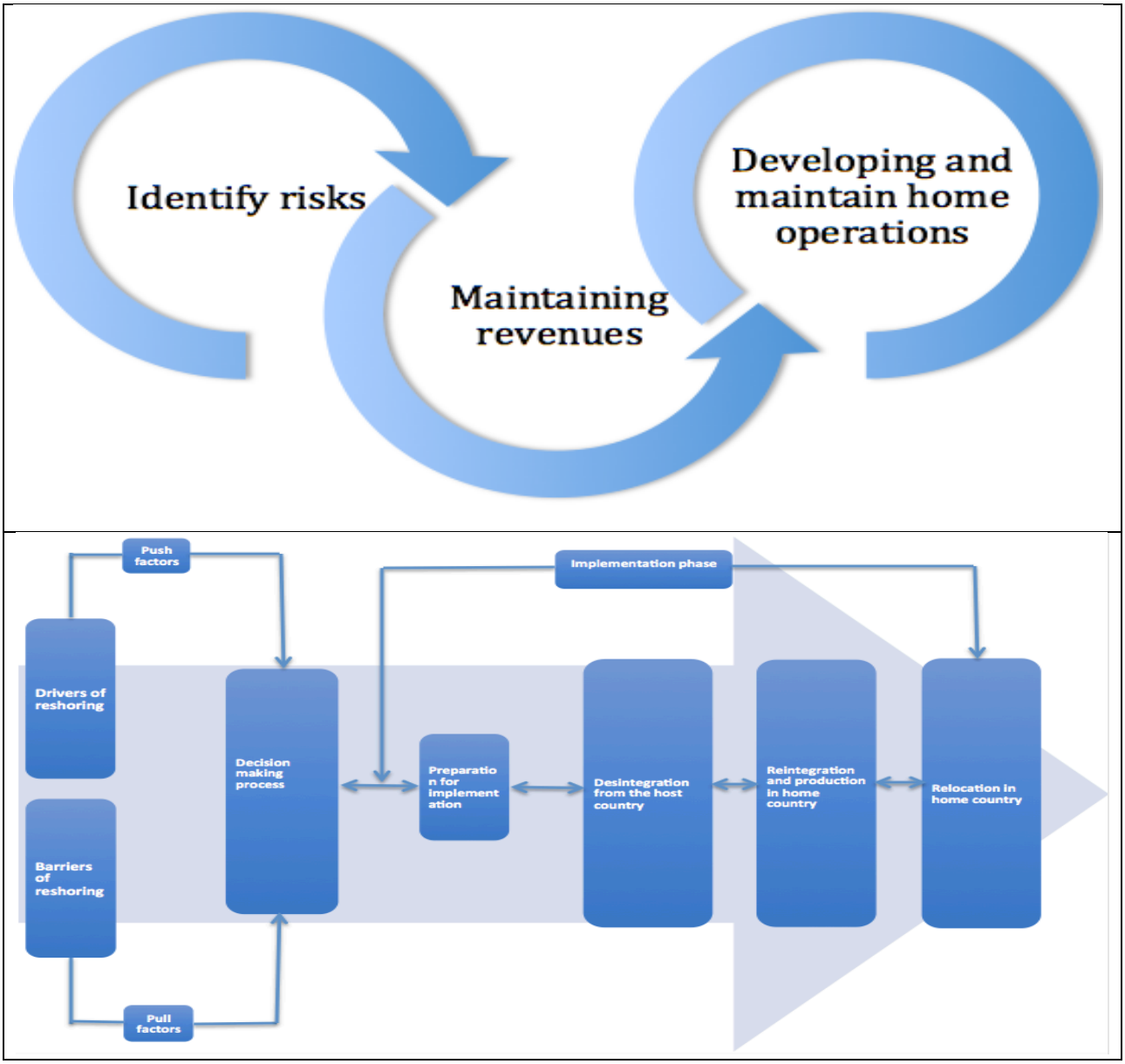


Figure 6: Overview of the Conceptual Framework of Reshoring Process

Similar to Gray et al. (2017), this research assumption is that the reshoring process does not need to follow a rational reasoning. This is in line with March (1971) perception that invites people to consider the softer side of the human intelligence. The intuition has an important impact on human actions and behaviours (March, 1971). This was considered, echoed, and enriched by many academics in organisational theory (Gustafsson and Lindahl, 2017). For example, Leybourne (2009) encourages project management to be more considerate to solve the business uncertainty caused by the changing environments and unexpected turbulence using the emergent theory. This theory increases the creativity, intuition, improvisation, and the tacit knowledge,

which is acquired over time through learning and experience (Mirabeau & Maguire, 2014). In the last twenty years, scholars such as Baker et al. (2003), Miner et al. (2001), Leybourne (2006, 2009), Lindahl (2003), and Mirabeau & Maguire (2014) have introduced explaining the management activities using the emergent theory and suggested this theory is more suitable for strategies built in dynamical environments. Therefore, based on this perception, and in order to fulfil the research objectives, which are to examine the current drivers and barriers, as well as the decision-making and implementation phase of reshoring manufacturing in the UK, this study propose a conceptual framework for reshoring that is founded upon the emergent theory. The aim is to provide practical evidence that can be used to support future reshoring cases through capturing all the relevant information regarding the manufacturing reshoring in the UK.

The circular arrow in the conceptual framework depicts the dynamic aspects of the three main elements: identifying risks, maintaining revenues, and developing & maintaining home operations. These elements are dynamical and active in all reshoring steps and need to be re-evaluated continuously (Mirabeau & Maguire, 2014).

The big arrow of the conceptual framework in the background shows the direction of the reshoring strategy. This includes identifying the drivers and barriers, decision-making process, and implementation phase. The connectors between the driver/barriers and decision-making show that the push and pull factors of the reshoring are the pillars of the decisions of reshoring (Wiesmann et al., 2017). Thus, the decisions making of reshoring is based on the factors identified in the drivers and barriers. The connectors between the decision making, preparation for the implementation, disintegration of the host country, reintegration in the home country, and relocation and production in the home country show that the implementation do not follow a rational approach, but rather an overlapping route recognised to be dynamical and requires continuous re-evaluation when necessary (Mirabeau & Maguire, 2014).

- **Identifying risks**

Firms may face many operational and supply chain risks that can impact the firm performance (Simchi-Levi et al., 2015). The risks are usually threats to the firm ability to attain its goals (Simchi-Levi et al., 2015). Available knowledge shows that reshoring firm usually make a detailed assessment of risks as part of their strategy (Ciabuschi et al., 2019; Benstead et al., 2017). However, the emergence and unpredictability of the phenomenon make the firm vulnerable if relying on the rational assessment solely. This is because risks by nature are unpredictable (Mirabeau & Maguire, 2014). Yet, there is no guarantee of the occurrence, or no occurrence of those risks assessed. The rational assessment is therefore based on probabilities. This means that the assessed risks may change, and other unexpected risks may occur.

This study conceptual framework acknowledges such emergence and unpredictability. The risks unpredictability interconnected with the location decisions makes them difficult to distinguish (Benstead et al., 2017). For instance, a change in political or economic laws either in the host or home country (Ciabuschi et al., 2019), a change in environmental and social laws (Gray et al., 2013), problems arising after establishing new partnerships with suppliers (Baraldi et al., 2017), supply chain problems starting after establishing contracts (Bailey & De Propris, 2014; Tate, 2014), amenities and equipment issues in the home country, e.g., complications related to the factory, land, and/or machinery (Boffelli et al., 2018). Therefore, given the environment uncertainties in which reshoring occurs, firms cannot identify the risks assuming they will remain unchanged, as other risks may emerge in the process (Benstead et al., 2017). In this respect, the emergent theory show that risks are dynamic and unpredictable, and the reshoring decisions should be continuously re-evaluated to predict the potential problems that may arise in the process of implementation (Benstead et al., 2017). The continuous re-evaluation of the risks allows adjusting the strategy to the emerging risks (Mirabeau & Maguire, 2014). In this sense,

the decision-makers should assess the risks simultaneously while applying the strategy of reshoring (Mirabeau & Maguire, 2014).

- **Maintaining revenues**

One of the necessities of reshoring strategy is maintaining the firm revenues (Benstead et al., 2017). The process of reshoring is complex, as it requires moving the firm activities and production from the host country to the home country (Ciabuschi et al., 2019; Wiesmann et al., 2017). This strategy should be implemented while maintaining the revenues of the firm because they are fundamental for the firm profitability (Gylling et al. 2015). According to Benstead et al. (2017), the revenues of the firm can either positively or negatively affect the reshoring process. Thus, the employees, machinery, management, operations, and control involved in the firm either in the host or the home country highly influence the success of this transition by ensuring the business activities are maintained and the revenues and profitability are continuous (Benstead et al., 2017). The current understanding show that the firm revenues can be planned in advance, and it is more likely the company has a long-term view on what to expect (Benstead et al., 2017). However, the reshoring decisions are complex and occur in a dynamical environment, which can impact the firm ability to maintain the revenues and pursue the rational strategy. Yet, this conceptual framework considers the emergent side of maintaining the revenues of the firm.

In the article, Benstead et al. (2017) argue that issues can arise in the transition that can be unpredictable and can negatively affect the operation and control of the business (Benstead et al., 2017). For example, macroeconomic such as socially, environmental, and politically related factors have a high influence on firm profitability and revenues (Benstead et al., 2017). The authors explain this through the changes that happen over time in the home country require the returning firm new abilities and knowledge over the market (Benstead et al., 2017). Though, the emergent perspective shows that in this case the revenues can be maintained through a

continuous monitoring of the firm situation in each step of reshoring. In addition to this, the decision-makers should be adapting to the new environment in each phase of the reshoring process (Benstead et al., 2017).

- **Developing and maintaining home operations**

Developing and maintaining the home operations have not been well studied in previous reshoring articles (Boffelli and Johansson, 2020). Benstead et al. (2017) and Boffelli and Johansson, (2020) have mentioned maintaining the home operations as a main element of the contingency factors to explain the reshoring phenomenon; however, not many details were given on how this may be attained. This research views this element as a fundamental aspect of the implementation phase of reshoring. This is because the evolvement of the reshoring strategy is seen through how efficient the home operations are improving in the relocation (Boffelli and Johansson, 2020). There are many questions left unanswered in the literature regarding how to develop the home operations and the "degree of reshoring" (Gylling et al., 2015; Joubioux and Vanpoucke, 2016; Benstead et al., 2017). For instance, research in offshoring show that this strategy is mostly implemented gradually, starting with small batches of production, and then increasing the magnitude of offshore production over time (Gylling et al., 2015; Di Mauro et al., 2018). It is still unclear if the same procedure applies for reshoring. Questions such as either the firm need to produce the same offshoring product volume or produce smaller volumes in the home countries in the first periods of relocation are still unanswered (Boffelli and Johansson, 2020). Also, how to shift the volumes from host to home countries remain unstudied (Boffelli and Johansson, 2020). Yet, according to Boffelli and Johansson (2020), developing and maintaining home operations is a dynamical process. The dynamics of this element can be explained by the fact that the domestic market have changed over time when the firm was offshore (Boffelli and Johansson, 2020). For example, bringing back the business activities to the same supplier when reshoring could be

problematic because of the damaged trust between the firm and the home country suppliers caused by previous offshoring decisions (Engström et al., 2018; Nujen et al., 2018). Also, the previous knowledge about the home country might have diminished over time, and if the firm neglects evaluating the access to new skills and knowledge, fatal errors may occur in reshoring implementation (Nujen and Halse, 2017). In this regard, the firm management should be able to continuously identify new competencies and develop key dynamic capabilities to overcome these challenges and start operating successfully in the home country (Nujen et al. 2018).

The second part of the conceptual framework is represented through a big arrow that contains the steps of reshoring. This study chose the big arrow to show the direction of reshoring process. The small arrows in between the phases of reshoring show that those steps can be overlapping and require continuous cycles of planning, decision-making, preparation, and implementation.

Drivers and Barriers of reshoring

The drivers and barriers of reshoring are unlikely to change in the short-term. These can be planned well in advance. However, if the reshoring takes a long time to be planned and implemented, even such a stable situation can change leading to a different set of barriers and drivers (Ellram et al., 2013; Tate et al., 2014), or as pointed by Boffelli and Johansson (2020), time may also affect the drivers and barriers in a way that drivers may change to barriers and vice versa.

- **Drivers of reshoring**

The conceptual framework of this study identifies the drivers – that are considered push factors – as a first step toward reshoring. Examining the drivers and motivation of this phenomenon is fundamental (Fratocchi et al., 2016). For more details, the driving factors have been critically analysed and explained in *Chapter 2, section 2.4*. The conceptual framework shows that the reshoring follows interplay of numerous factors that may happen in different locations. For

example, in the home country market or the host country market, e.g., changes in supply chain related factors, environmental, partnerships, and firm specific. These events can happen dynamically and unexpectedly one at a time or simultaneously (Boffelli and Johansson, 2020). According to Nujen and Halse (2017) and Baraldi et al. (2018), the drivers of reshoring are the less likely to remain stable due to the conditions and dynamical characteristics of the reshoring environment, especially when the reshoring is taking longer time to complete. Thus, as pointed by Ellram et al. (2013) and Tate et al. (2014), the drivers may be dynamic and need to be explained from a dynamic perspective.

Hence, identifying the drivers from an emergent perspective involve taking into consideration the dynamics and unpredictability of the environment (Mirabeau & Maguire, 2014). In other words, the drivers evaluation should not be considered stable and none changing. This means that the decision-makers should continuously identify the drivers throughout the reshoring process (Mirabeau & Maguire, 2014). The emerging reshoring strategies can be continuously adjusted to any set of changes that occur (Mirabeau & Maguire, 2014). This will permit the decision-makers to identify, eliminate, and change the drivers accordingly with the environmental dynamic (Mirabeau & Maguire, 2014).

- **Barriers of reshoring**

The barriers – pull factors – are represented in the same category as the drivers of reshoring. The barriers of reshoring are as important as the drivers of reshoring; however, it is the least explored in the literature (Wiesmann et al., 2017). Very few factors have been identified under this category, as discussed in *Chapter 2, section 2.5*. Nevertheless, the literature has shown that similarly to the drivers, the barriers are dynamic and can emerge at any time in the reshoring decision and implementation phase (Ellram et al., 2013; Tate et al., 2014). In the same vein, Engström et al. (2018) argue that the barriers are considered hard to identify in advance by the firm but are more likely to occur unexpectedly during

the reshoring implementation. Therefore, similarly to the drivers, the barriers should be continuously identified throughout the reshoring process (Mirabeau & Maguire, 2014). This is essential to be able to identify the emerging barriers and obstacle of the reshoring and adapt the reshoring strategies correspondingly (Mirabeau & Maguire, 2014).

- **Decision-making process**

The decision-making process has not been well studied (Boffelli et al., 2018; Wiesmann et al., 2017). Authors such as Bals et al. (2016), Boffelli et al. (2018), and Benstead et al. (2017) have stressed into the necessity to address the decision-making of reshoring more in depth in future research. This is because it is considered an important aspect of reshoring that shapes the success or failure of the business strategy. According to Boffelli & Johansson (2020), the decision-making process of reshoring includes the decision aspects, which involve the product and activities to be relocated, the new location chosen for the production, and the process of the decisions in terms of the different phases and people involved. These aspects are dynamical and are more expected to change with time and often unexpectedly. For example, choosing the factory for the production in the home country is difficult, and many issues may arise in finding an appropriate plant such as size, facilities, and location. Moreover, the decisions are based on the motivations of reshoring, such as the drivers and barriers (Boffelli & Johansson, 2020). As stated previously, the drivers and barriers may be dynamical over time leading to new and different factors that should be taken into consideration in the decisions process.

In complex decisions, the rational decisions provide a complete strategy before implementation (Boffelli & Johansson, 2020). However, these strategies may change due to environment uncertainties. Alternatively, the emergent strategy shows that the decision-making emerges from the process of the reshoring (Mirabeau & Maguire, 2014). In each phase, the firm should analyse and set an action plan for the next step while taking into consideration the previous step, and this is while considering the current environment characteristics (Mirabeau & Maguire, 2014). This

strategy allows the decision-makers to adapt their decisions in case unpredictability arises (Mirabeau & Maguire, 2014). Though, the emergent theory highlights the importance of learning and experience that plays a crucial role in having efficient emergent strategies (Mirabeau & Maguire, 2014). Gray et al. (2017) propose firms should compile their data and store them in a way that can be easily accessed by managers to improve learning and knowledge. Concerning the decision-makers, the emergent theory points out to the importance of having a working environment that encourage sharing ideas and opinions (Mirabeau & Maguire, 2014). This is viewed as an opportunity to discover new ways to plan and proceed (Mirabeau & Maguire, 2014).

- **Preparation for implementation**

The preparation phase in reshoring is a new aspect introduced by (Boffelli et al., 2020). It has been briefly mentioned in previous studies such as Nujen et al. (2018) as part of the implementation of reshoring. This new aspect has not been explored yet (Boffelli et al, 2020). However, the firm readiness for the implementation of reshoring is crucial (Nujen et al. 2018). This is because the company might have neglected to evaluate and access skills over time, and this might cause the firm knowledge to diminish, which will eventually affect the reshoring implementation (Nujen and Halse, 2017). Also, the firm is most likely to have no experience in reshoring and have lost knowledge if offshoring was done long time ago (Nujen and Halse, 2017). Thus, this phase involves identifying the firm existing abilities, competencies, and dynamic capabilities (Nujen et al., 2018). In addition to this, the firm must adjust, structure, and strengthen the knowledge and skills needed for the reshoring strategy (Mirabeau & Maguire, 2014). For example, implementing training programs before reshoring (Boffelli et al., 2020), preparing the managers to face the reshoring of the firm (Gray et al. 2017), improving efficiency (Engström et al., 2018), ensuring firms readiness (Nujen and Halse, 2017; Nujen et al., 2018), and ensuring an efficient flow of information and communication between all parties concerned

about reshoring both in host and home country such as headquarters, boardroom, management, suppliers, and employees (Mirabeau & Maguire, 2014). In addition to this, the emergent theory highlights the importance of encouraging employees in sharing ideas and opinions to achieve an efficient emergent strategy (Mirabeau & Maguire, 2014). Though, the preparation phase should be viewed by the managers as a brainstorming session that involves sharing and discussing ideas and opinions. This is essential to explore new ways and segment for problem solving and decision-making (Mirabeau & Maguire, 2014).

Implementation phase

The implementation phase of reshoring constitutes on different phases, which includes the disintegration from the host country, relocation to the home country and reintegration in the home country.

- **Disintegration from the host country**

The disintegration from the host country means the exit modes adopted by the firm to leave the host country and return to the home country (Fratocchi et al., 2014). There are several options the company can choose from to exit the host country as shown in *Figure 7* below. Also, this research has discussed the choices of exit modes in more details in *Chapter 2, Section 2.7.3*. Previous studies have reviewed the exit modes from a rational perspective, stating that the firm evaluate the exit modes in the decision-making phase and apply them directly in the implementation phase (Fratocchi et al., 2014). However, this research assumes the exit modes can change due to unpredictable circumstances either in the firm or in the environment where the firm operates, especially that reshoring takes a long time to apply. This is supported by Dixit (1992) study that proposes the exit modes are highly influenced by the environment and firm uncertainties, delay abilities, and irreversible factors. Song (2014) added that for these reasons exit modes do not occur automatically but are delayed for a certain period until the firm is ready for the shift. Thus, in the meantime these exit modes may change to adapt to new circumstances.

In this vein, O'Brien and Folta's (2009) highlight the effects of firm characteristics – such as competition, and technological intensity – on increasing uncertainty level and eventually influencing the exit modes of a firm. An example of these uncertainties is pointed out by Belderbos and Zou (2009) who identify the effect of volatility of high exchange rate in Asian countries, which influence the exit modes in MNE's.

- **Relocation to the home country**

The relocation to the home country involves the entry modes adopted by the firm to move back to the home country (Wan et al., 2019). The literature has identified factors such as firm related (e.g., capabilities, firm size), industry-related (e.g., technology capabilities, market), country-related (e.g., political, exchange rate), and project-related (e.g., factors driving the market change) to highly influence the entry modes in reshoring decisions (Wan et al., 2019). These factors are dynamical and are usually continuously changing (Wan et al., 2019). For example, the firm related capabilities (e.g., knowledge, skills, and learning) evolve or diminish over time depending on the firm strategies. Another example is the country-related factors such as politics, economical regulations, and laws that have been changing unexpectedly in many countries, e.g., Asia, Russia (Belderbos and Zou, 2009). Thus, the fact that the factors affecting the entry modes are dynamical means the relocation decisions to the home country are dynamical as well. This means that the choice of the entry modes may alter if the environment in which the decisions are taken changes because of unpredictable events and/or actors (Mirabeau & Maguire, 2014).

- **Reintegration in the home country**

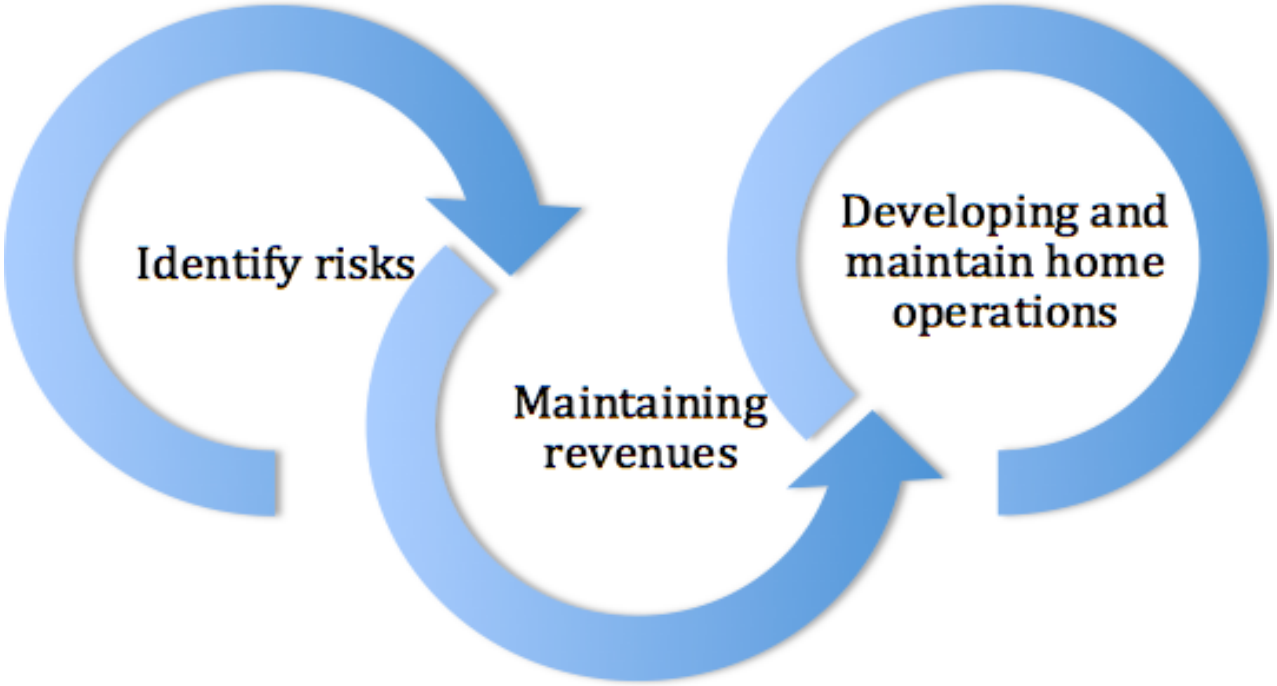
The reintegration in the home country is the last step of reshoring, and this means building strong business operation back home again. Once the company achieve this step, the reshoring is almost completed. Not much research has been done in this area, to the best of my knowledge, only two studies have discussed the reintegration phase such as Wan et al. (2019) and Benstead et al. (2017). According to Wan et al. (2019), reintegration in the home country is crucial because it

permits to operate back closer to the market, which allow strengthening the product development, design activities, and increase innovation capabilities. Reintegration in the home country involves many operational aspects, including accessing labour and finance (Bentead et al., 2017), as well as putting in place the machinery and ordering raw materials to start production (Boffelli et al., 2020). As mentioned by Bentead et al. (2017), firms might face different kind of problems in the home country such as finding the appropriate employees with the needed skills, finding suitable suppliers, value creation, maintaining revenues, and turnovers. An example of this is a case study done by Bentead et al. (2017) that shows a company facing critical issues when bringing the production back to the home country. The company rational strategy did not account for the hard and challenging obstacles the firm faced back home (Bentead et al., 2017). For instance, problems with supplier availability, which was a completely different outcome from what was evaluated in the decision-making (Bentead et al., 2017). The authors gave another example from a second case study in which the company reintegrated the production to the home country but was faced by increased workload and a shortage of staff that led to turnovers (Bentead et al., 2017).

The literature is still lacking enough knowledge on how companies take such decisions and the challenges they face along with the implementation phase (Barbieri et al.,, 2018; Boffelli and Johansson, 2020; Boffelli et al., 2020; Boffelli et al., 2021). Mainly, these challenges are related to unpredictability and unexpected events that may happen in the process of reshoring. While the implementation elements can be done one at a time or simultaneously – depending on the decisions making of the firm – this research views the implementation of reshoring as a dynamical phase that requires continuous re-evaluations that takes into account the unexpected factors and actors emerging throughout the application of the decisions. This is in line with Boffelli et al. (2020) who suggest reshoring implementation should be applied based on a flexible approach. This means it should be characterized by cycles of problem solving between different phases of reshoring decision-making, preparation, and implementation phase (Mirabeau &

Maguire, 2014). Furthermore, the emergent perspective proposes the reintegrating to the country should be based on the characteristics of the environment in the home country (Mirabeau & Maguire, 2014). In this sense, the firm should make emergent strategies while operating in the home country (Mirabeau & Maguire, 2014). Based on the market, the decision-makers evaluate the advantages and risks and proceed with a value creation short-term plan (Mirabeau & Maguire, 2014). The firm is then able to test the plan, and either continues to adjust and operate in the same way if the firm is gaining competitive advantages or re-evaluate and change to another short-term plan (Mirabeau & Maguire, 2014).

3.1.2 Detailed conceptual framework of the dynamical reshoring decision-making and implementation process



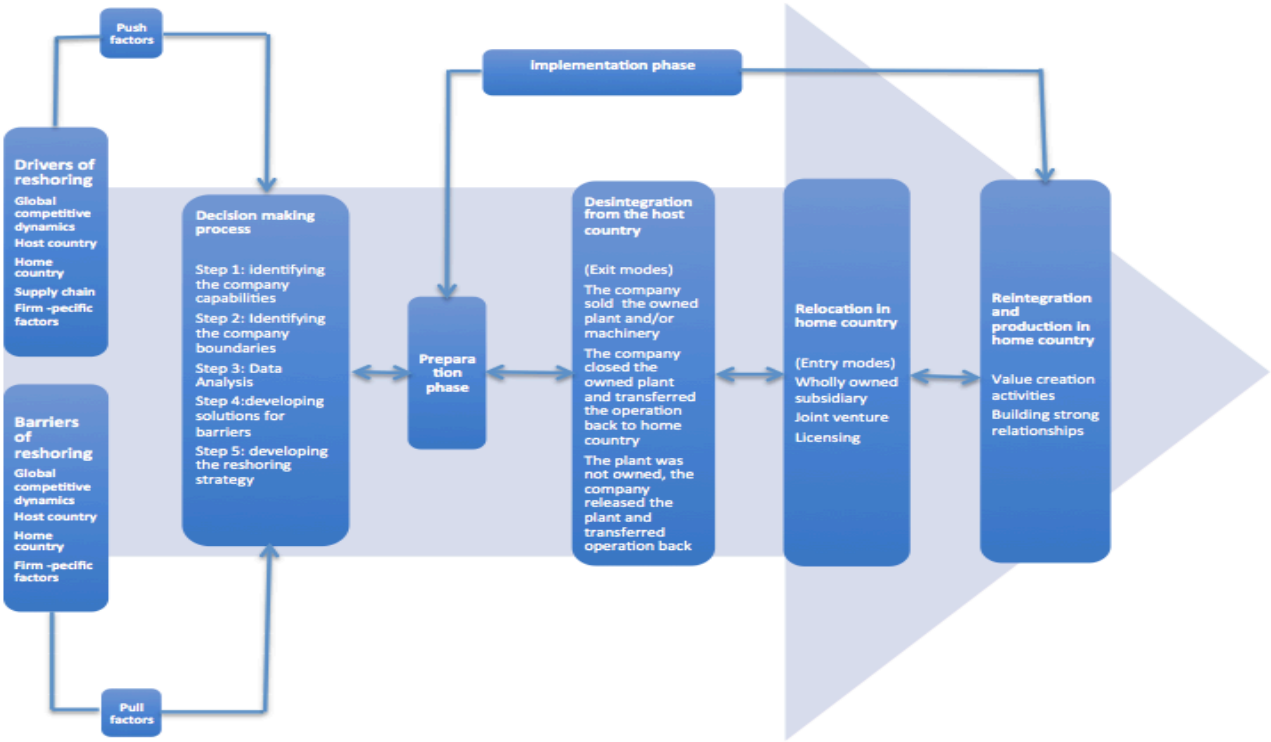


Figure 7: Detailed Conceptual Framework of Reshoring Process

This version of the conceptual framework represents a more detailed methodology that lists the options available under each step of reshoring.

As mentioned previously, the first part of the conceptual framework is represented through the circular arrow that describe the dynamic aspects of the three main elements needing to be maintained while reshoring such as identifying risks, maintaining revenues, and developing and maintaining home operations. These elements are considered dynamic and active in all reshoring steps and need to be re-evaluated continuously to adapt to the changing environments.

The second part is represented through an arrow that shows reshoring process. The reshoring process starts with identifying the drivers and barriers of reshoring. This research categorises the drivers and barriers according to Wiesmann et al. (2017), who divides the factors under five aspects: global competitive dynamics, host country, home country, supply chain, firm specific factors. The second step is the decision-making phase, which is categorised into five steps: *step 1* identifying the firm capabilities, *step 2* identifying the firm boundaries, *step 3* data analysis, *step 4* developing solutions for barriers, and *step 5* developing the reshoring strategy. The decision-making phase show the firm should identify these steps using a flexible approach that enable continuous overlapping between the steps if necessary (Mirabeau & Maguire, 2014). The steps do not need to be evaluated in order, but rather each step can be assessed based on the company and the environment in which the reshoring occurs (Mirabeau & Maguire, 2014). Furthermore, the firm strategy does not require to be completed before the implementation (Mirabeau & Maguire, 2014). This is in line with Gray et al. (2017) that suggest the reshoring strategy should be intuitive, which means the decision-makers should not wait to complete the strategy to implement it. This is as explained by the authors due to the environment uncertainties that may affect the rational evaluation (Gray et al., 2017). The next step, which is the preparation, involves setting clear plan on how to implement the reshoring strategy agreed in the decision-making

(Boffelli et al., 2020). This step can be repeatedly done throughout the reshoring process because the firm will need to continuously set action plans (Mirabeau & Maguire, 2014). The implementation phase includes three phases. The disintegration from the host country through exit modes, which includes the following options, (1) the company sell the owned plant and/or machinery, (2) the company closed the owned plan and transferred the operations to the home country, (3) in case the plan was not owned, the company released the plant and transferred operation back to the home country (Wiesmann et al., 2017). The next phase is the entry modes, which includes wholly-owned subsidiaries, joint ventures, and licensing (Wan et al., 2019). Then, the last step is the reintegration to the home country, which includes the value creation activities, firm specific improvement (in-house training), and building strong relationship (e.g., suppliers).

Chapter 4

Research Methodology

4.1 Introduction

This chapter discuss the research methodology including the data collection and procedures of the study. The discussion of the research methodology involves explaining the adopted methods and philosophies guiding the research. According to Saunders et al. (2018), the research method is the procedure the author is using in gathering the data. The methodologies used in this study support the research question, the objectives, the conceptual framework, the evidence gathered, and the interpretation of the researcher (Clark, 1984). Saunders et al. (2018) explains the research process through an onion, as represented in *Figure 8*. The layers of the onion suggest different approaches for the researcher to choose from and must be consistent with the research aims and objectives. Based on the onion, the following sections explain the research methodologies of this study: (4.1) introduction (4.2) research philosophy, (4.3) research design, (4.4) research methods, (4.5) data collection, (4.6) sample size, (4.7) and data analysis.

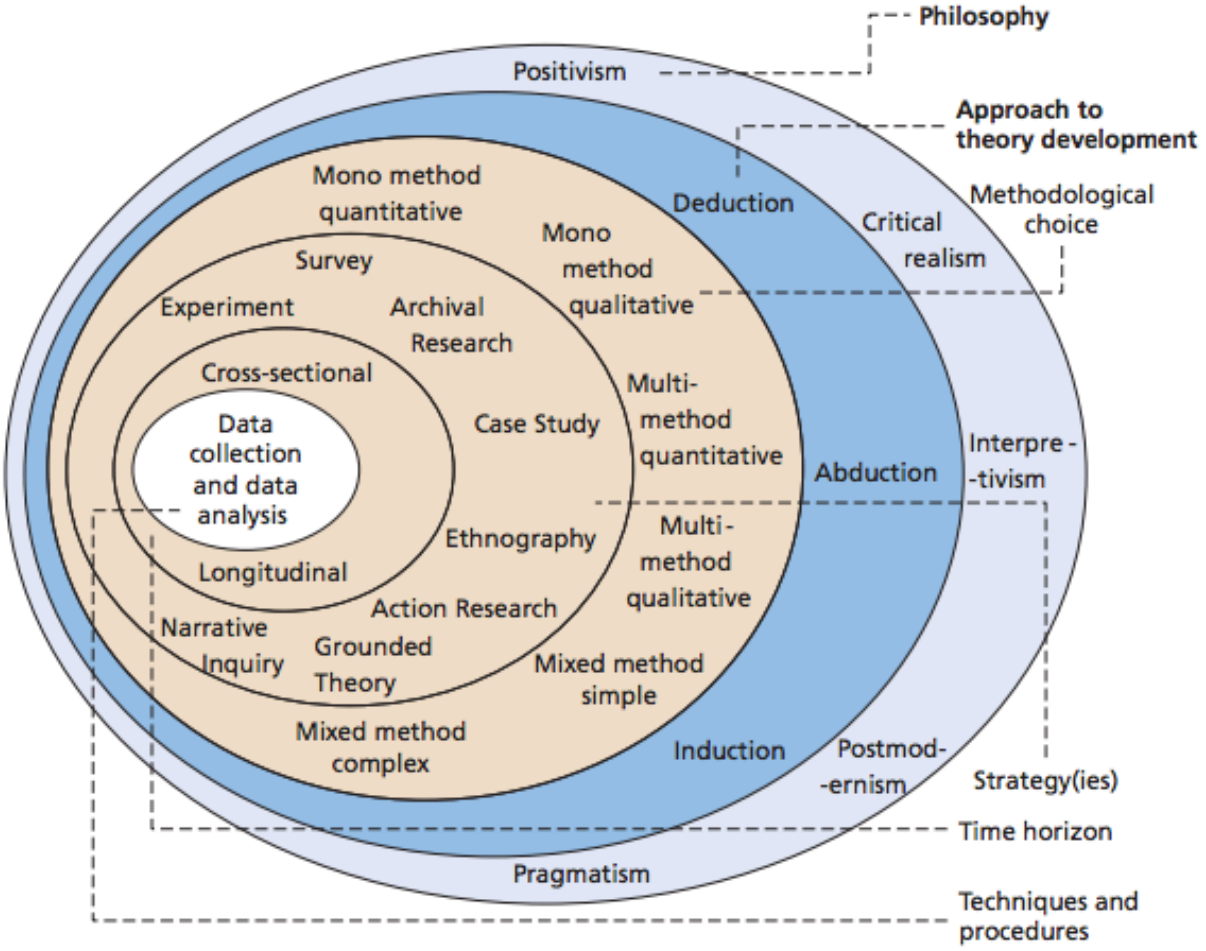


Figure 8: Research Methods Onion

Source: Saunders et al., (2018)

4.2 Research paradigm

Research should be grounded on a philosophical foundation that shows how the research is conducted, how the data is gathered and analysed, and the approach the researcher is using to tackle the realities and facts of the study. Collis and Hussey (2014) describe the research philosophies as a structure guiding the research process, which is based on people understandings and assumptions about the world and knowledge. Myers (2009) added that the research philosophy adopted in a study influences the validity and legitimacy of a research.

Ontology

The ontology refers to our assumptions of reality and knowledge (Saunders et al, 2007). How this reality exists, and the views related to this reality create an ontological question that drives a

researcher to examine the existing truth (Saunders et al., 2007). The ontology can either be objective or subjective. According to Saunders et al, (2007), objectivism "portrays the position that social entities exist in reality external to social actors concerned with their existence". Subjectivism on another hand perceives "social phenomena are created from the perceptions and consequent actions of those social actors concerned with their existence" (Bryman, 2012).

- **Epistemology**

The epistemology philosophy studies the nature of reality and identifies the acceptable knowledge for a specific study (Saunders et al., 2018). Epistemology tackles the possible options, sources and limitations of knowledge for a phenomenon in a particular study. Moreover, epistemology is concerned by the criteria that specify what does and does not relate to the knowledge. According to Saunders et al. (2015), the management and business research belongs to the positivism, interpretivism, critical realism, postmodernism, and pragmatism. Each one of the philosophical approaches has a specific way to reduce generalisations in the research.

- **Realism**

The realism approach believes the natural and social science can use the same approach to collect, examine, and explain the data. This research philosophy assumes the knowledge is based upon a scientific approach (Saunders et al., 2015). The realism can be divided into two types: direct realism and critical realism.

Direct realism, also known as empirical realism and naïve realism can be explained as "you get what you see" (Saunders et al., 2015). Direct realism assumes that using the right research methods when collecting the data results in an analysis that provides understandable findings. This research philosophy suggests the human sense acts as an important aspect to portray the world (Saunders et al., 2015).

Critical realism argues that individuals can recognise the truth through observing a pattern and understanding its reality, but this reality is not always true. In other words, the critical realism

assumes individuals can visualise an image and understand it's meaning; however, the true meaning can be different from what it looks like (Saunders et al., 2015). Therefore, the reality can only be achieved through data, theoretical work and analysis (Bhaskar, 1989). The strength of this research philosophy is its ability to identify the multilevel study importance, for example, at the level of one person, then a group and finally an institute (Saunders et al., 2015). Any of those levels influence the understanding of the research and their ability to interpret the subject. This means critical realism philosophy assumes the social science is an ever-changing world, which offers more flexibility to interpretation (Bhaskar, 1989). However, the weakness of critical realism is that this research philosophy assumes the social world is completely different from the natural world, and suggests that the reality and knowledge observed in the natural world shouldn't be applied to the social world (Saunders et al., 2015). In addition to this, critical realists are biased by trait, culture, personality, and experience. So, this means any biased interpretations can influence the research validity and generalization (Saunders et al., 2007).

- **Postmodernism**

Postmodernism research philosophy is a reaction against the philosophical assumptions of Western philosophy that appeared during the 18th century (Saunders et al., 2015). Postmodernists believe reason and logic are constructed and are valid only within the intellectual domain in which they are used (Saunders et al., 2015). In other words, reality according to postmodernist is not a solid and self-contained understanding. It is an unfolding process continually affected by the world and the individual actions and beliefs (Tarnas, 1991). In other words, the realities and knowledge are always changing. This is because humans have been creating everything in the world. Unlike naïve realism, postmodernism deny the idea that knowledge can be achieved through human beings reasoning only (Saunders et al., 2015). Besides this, postmodernism disagree with the idea that technology and science help human and their society improve (Saunders et al., 2015). An example of this is the massive killings caused in wars due to the

technology advance through the human creation of bombs and guns (Saunders et al., 2015). So, postmodernists contradict ideas that reality can be objective, that a statement can be true or false, and that it is possible to know and understand something with certainty (Saunders et al., 2015). Critics on this research philosophy highlight that this approach may be confusing, as different researchers adopt different aspects, which means reality may follow different paths (Saunders et al., 2007). However, postmodernism philosophy assumes understandings, reality, and knowledge are founded by discourses and can vary with them (Saunders et al., 2015).

- **Positivism**

The positivism is a philosophical paradigm used in natural sciences and experimental sciences; it is somehow similar to realism (Collis and Hussey, 2014). Nowadays, this philosophical paradigm is commonly used in social sciences and business research. It has originated from one of the very known philosophers such as Aristotle, Bacon, and Emmanuel Kant (Mertens, 2005).

This type of research philosophy assumes the truth is in the external world, and the role of the researcher is to discover knowledge from observation, experience and experiment (Collis and Hussey, 2014). According to Collis and Hussey (2014), positivism cannot be proven to be true, but it can be accepted as a reality because all aspects state so. In the business sector, the positivism approach search for the relationship between the cause-and-effect behaviour (Creswell, 2009).

This research paradigm focuses on models/theories to predict and understand social phenomena (Collis and Hussey, 2014). Moreover, this approach reveals the interconnection between different phenomenon by analysing and demonstrating the causes of the outcome (Creswell, 2009). To investigate the research questions, assumptions and hypotheses, quantitative data and statistical methods are more appropriate for the positivism approach. However, the positivist paradigm has been criticized on many grounds. For example, the difficulty in understanding individuals regardless of their beliefs and perceptions, separating people from their social life, difficulty of

understanding complex phenomena by using one measures (Collis and Hussey, 2014). There are three types under this approach. The first type is phenomenologist; it focused on the past and current experiences of the candidates participating in the research by collecting this data, analysing it, and interpreting those data (Creswell, 2009). The second type is hermeneuticist, which is more concentrated in the cultural meaning and stories told about images, symbols, and drawing (Creswell, 2009). The third type is symbolic interactionists; this one concentrate on the individual behaviour in-group works and meetings. It is more about people interaction with each other (Creswell, 2009).

The positivism approach requires the researcher to be independent and do not affect or is affected by the study (Remenyi et al. 1998). Under the positivism the research is keen to test hypothesis and is more compatible with quantitative methods based on large samples (Collis and Hussey, 2014). So, the strength of positivism is that it can test a theory against observations, and independent results are produced (Johnson and Duberley, 2000). This means that the study outcome is a single reality; specifically, this research philosophy proves or disproves a hypothesis. However, when applied to social sciences, positivism does not take sufficient accounts of moral aspects, which evidently influence the human behaviour (Pratten, 2007).

- **Interpretivism**

Interpretivism was originally founded as an opposite philosophical paradigm to positivism (Creswell, 2009). The interpretivism approach is strongly shaped by human beings' perceptions and beliefs (French and Rumble, 2015). An interpretivist researcher investigates the complexity of social phenomena by understanding the human beings as social actors. In other words, this approach highlights the differences between computers and humans (Collis and Hussey, 2014); an interpretivist tries to understand the phenomenon instead of measuring it (French and Rumble, 2015).

This research approach suggests the social phenomenon and human being are different and therefore cannot be investigated in the same way (French and Rumble, 2015). This means social sciences and natural sciences should be researched using different approaches. Also, the world offers different experience for individuals accordingly with their background, culture, circumstances and experiences (French and Rumble, 2015). Unlike positivism, interpretivism does not follow a general law (French and Rumble, 2015). The interpretivist assumes each situation is different. To generate knowledge through interpretivism, the qualitative methods are more appropriate for the research (French and Rumble, 2015). The interpretivism studies use a smaller sample that produce deep and rich insights of human perceptions, and this exhibits less ability for generalization (Saunders et al., 2015).

- **Pragmatism**

In the late 20th century, pragmatism emerged as a new philosophical movement that concentrate on the practical side of social reality (Saunders et al., 2015). The first wave of this philosophy is related to philosophers such as Charles Peirce, William James and John Dewey (Saunders et al., 2015). According to James, pragmatism focuses on the way individuals think, the ideas, experience and how this is shaped into new habits and actions (Ormerod, 2006). Later, Dewey suggested individuals personal experience involves interpretations, and deducing an understanding and knowledge leads to action and the reflection on those actions result on new ways of learning and acting (2008). According to Morgan (2014), this research philosophy can be applied to philosophy, education, politics, as well as business and management studies. Pragmatism research philosophy assumes reality to be accepted only if it supports an action (Saunders et al., 2015). In essence, pragmatism has no specific principles; any methods and approaches are acceptable as long as they can lead to the aim of the research by answering the research question (Saunders et al., 2015). Moreover, the pragmatists believe that there exist many different ways of undertaking research and understanding the world. This research philosophy

assumes one single research won't give the full picture of a reality and it is important to implement different options to understand a reality from different angles (Saunders et al., 2015). In regard to management researchers, Kelly and Cordeiro (2020) explain that pragmatists are like architects. This means that a pragmatist uses whatever materials and research methods needed to achieve an understanding to a research question. This doesn't necessarily mean the pragmatism philosophy requires many methods, but the research can use the necessary research method or methods to achieve the aim of the study (Saunders et al., 2015).

Prominently, pragmatists interpret the value and meaning of research data by investigating and examining the practical consequences of a phenomenon (Morgan, 2014). This research philosophy is suitable for research focusing on organisational features where practice and performance are closely tied with the way knowledge is produced (Morgan, 2014). With pragmatism, the researcher is keen to show the knowing, learning, and action rather than prove a true or false statement. Therefore, knowing is the key to potential transformable practices and implications (Morgan, 2014).

Through pragmatism, "researchers are better equipped to deal with complex, dynamic organizational processes where action, even if carefully planned, can have varied spatial or temporal qualities" (Kelly & Maya, 2020). This research philosophy recognizes that people in social science – including organizations – have different experiences and knowledge. Thus, this research philosophy encourages researchers to be flexible in their methodology techniques (Kelly & Maya, 2020). As stated by Feilzer (2010), "a pragmatic approach to problem solving in the social world offers an alternative, flexible, and more reflexive guide to research design and grounded research".

Kelly and Maya highlight the strengths of pragmatism in serving the organisational studies in three important ways (2020). First. This research philosophy emphasis actionable knowledge for researchers who desire to come up with a useful understanding and actionable knowledge by solving an existent problematic or re-evaluate a situation and drawing effective ways of acting

and efficient habits (Feilzer, 2010). Pragmatist researchers are concerned with knowledge that have practical impacts. In other words, pragmatists aim to develop forms of knowledge that acts on problems in the real world (Kelly & Maya, 2020). In organisational studies, this is referred to as "actionable knowledge" (Elkjaer and Simpson, 2011), and "practice-based knowledge" (Morgan, 2014). Second, pragmatists recognize the interconnection between experience, knowing and acting (Kelly and Maya, 2020). In this regard, the researcher is concerned about examining the organisation process, actions, and internal and external experience to surface complex issues. This is particularly more suitable to not well-documented phenomenon within an organisation, and knowledge relies on the "Inner world" of the company, which requires involving individuals working in the organisations, and then interpreting the data collected from them (Kelly & Maya, 2020). The third important aspect of pragmatism is that it serves as an experiential process, which is called the Deweyan principle of inquiry. This means pragmatism links opinions, views, experience and actions through the decision-making (Morgan, 2014). Dewey explains this link by explaining that people actions can be assessed and explored to find a response to a problem or obstacle (2008). This involves adaptation and alters behaviour in response to the issues. Moreover, Morgan assumes there are no boundaries between everyday life and research in organisations (2014). Rather, he suggests that this philosophy encourages researchers to ask questions such as "what difference would it make to act in one way rather than another?" This mainly encourages the researcher trace factors affecting a decision-making, and how these decisions are shaped. Pragmatists can gain a more in-depth understanding of the phenomena under investigation.

The pragmatism approach assumes that different methods are offering triangulation and sequence the research problematic in organisational contexts. Pragmatists can use from one method to a diversity of methods; any method/methods or approaches leading to answering the research question are accepted. The effort to improve organization knowledge is always a task left unfinished, because it is a changing environment (Lincoln, 2005). The pragmatist philosophy

supports the researcher in examining the 'hidden' processes and changing business environments and provides practical methods/theories/frameworks for the organisation. The weaknesses of this research philosophy are the fact that this philosophy provides a pluralist understanding of multiple truths (Kelly & Maya, 2020).

Rationale for adopting pragmatism

The discussion above provides a general view of the research philosophies. This research will adopt pragmatism, which is viewed as the most appropriate philosophy for this study. The main aim of this research is to identify the drivers and barriers of reshoring and clarify the decision-making process and implementation phase for UK manufacturers. This study aim is to contribute to providing more understanding for this phenomenon by developing a conceptual framework that will support future decision-makers in effectively reshoring back to the UK. In fact, this phenomenon is complex, therefore the researcher should use whatever works to validate the research questions. Also, this study is not concerned about proving a reality is true or false, but rather is interested in solving and providing actions for a problem, which involves people beliefs and ideas as an active subject and not passive. Thus, pragmatism is more suitable for this type of research (Morgan, 2014). In line with this research, the pragmatism philosophy is believed for giving more importance to the practical side of organisation (Kelly & Maya, 2020). In this context, McKenna et al. (2011) suggest pragmatism is a philosophy that enables the researchers to overcome the dichotomy between the theory and action and give voice to the organizational process and implications. In this vein, this study believes pragmatism is the most appropriate philosophy since the researcher aims to develop a practical framework for reshoring manufacturing back to the UK (Morgan, 2014).

In addition to this, this research is using mixed methods for this research; qualitative methods through interviews aiming to collect data from the organisational employees such as leaders, managers, and supervisors focusing on their experience, beliefs, and opinions about the reshoring

phenomenon. In another hand, the quantitative methods are adopted through surveys on a large sample, which focus on the drivers and barriers affecting the decision-making. Even though, interpretivism and positivism are usually adopted for qualitative and quantitative research methods in business sector (Saunders et al., 2007). The pragmatism is more suitable for research aiming to generate practical actions for an organisation (Morgan, 2014). Positivism for example does not follow a general law, and assumes each situation is different (Saunders et al., 2007). This research views the situations leading to reshoring and the decision-making process in different circumstance may generate a general dynamic framework that leads to implications shaping this phenomenon. In addition to this, positivists are more interested in testing hypothesis (Collis and Hussey, 2014). This is in contradiction with this research since the quantitative methods are used as descriptive statistics and not inferential statistics. Also, the fact that this phenomenon is new and not well documented requires the researcher to start with a problematic question and find the outcome of the analysis at the end (Saunders et al., 2007). In this vein, the pragmatic approach is specifically giving a major importance to the research question (Collis and Hussey, 2014). As noted above, research under the pragmatism approach leads to answering questions such as "what and how things work", and practical actions are shaped with the progress of the research, which is the goal of this research (Morgan, 2014).

4.3 Research reasoning

Selecting the appropriate research reasoning to analyse the data is fundamental to show a theoretical orientation of the research. According to Saunders et al. (2015), the three approaches that exist are inductive, deductive, and abductive.

Inductive:

This research follows an inductive approach as described in *Figure 10*. The inductive approach is used to draw a general conclusion from observations (Saunders et al., 2018). The researcher collects data to be able to identify patterns, knowledge, and understanding to come up with a conceptual framework to support the research (Saunders et al., 2018). Therefore, the study theory

is built with the progress of the research. The inductive approach aim is to examine the nature of the phenomenon (Saunders et al., 2015). This study follows this approach because it is more suitable to answer questions such as why and how something happened (Saunders et al., 2018). Through an inductive approach, this study aim is to answer questions such as what the driver and barrier factors of the reshoring phenomenon are, and how is this phenomenon happening within an organisation, as shown in *Figure 10*. In addition to this, it is also appropriate for studies with limited sources, such as new phenomenon and/or not well-documented topics (Snieder and Larner, 2009), which is the case of the reshoring topic (Wiesmann et al., 2017). Moreover, this research approach is suitable for pragmatism research philosophy (Wilson, 2010).

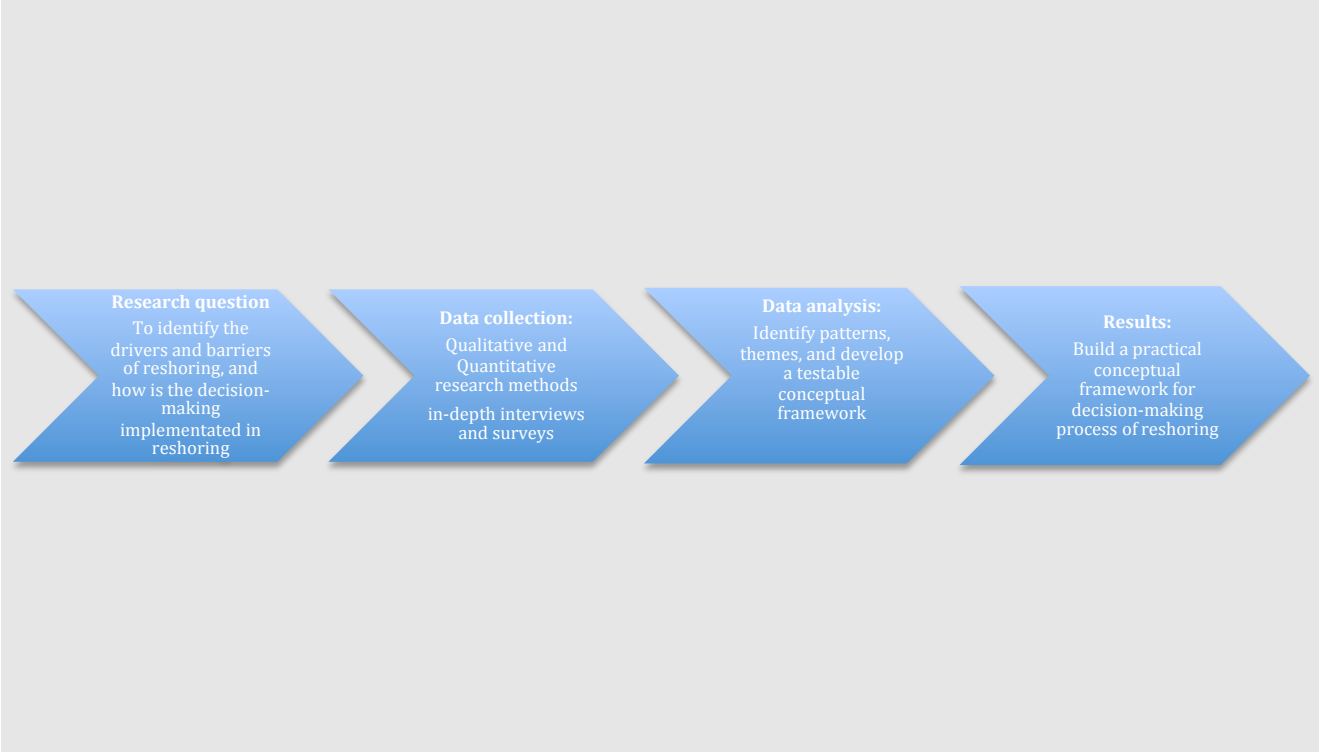


Figure 9: Inductive Research for the Thesis

Deductive:

The deductive approach is when the conclusions are based on hypothesis founded on existing theories, as shown in *Figure 11*. The theories are formulated by proposing a connection between variables. This means that the deductive goes from general to specific. According to Saunders et al. (2018), This research approach allows generalisation to the research context. The data is

collected to test the hypothesis of the study. Thus, the outcome of the study proves if those hypotheses are either true or false.

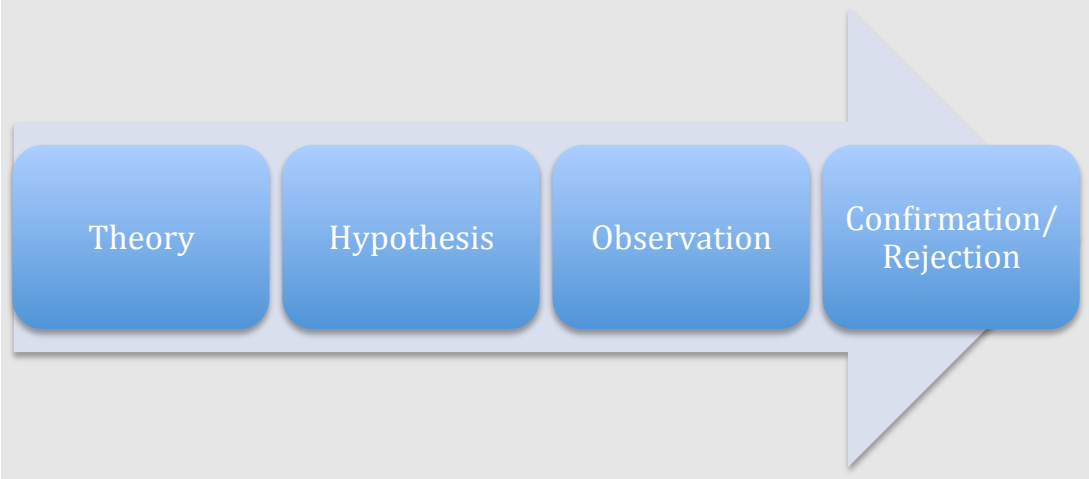


Figure 10: Deductive Approach

Abductive

The abductive approach is a mix between inductive and deductive approach. This reasoning involves general and specific research process. It is generally used to test surprising and incomplete conclusions (Saunders et al, 2018).

4.4 Data collection

Data collection methods have a very crucial role in the analysis of a research. There exist a variety of methods used to gather data and information, all of which fall into two types: primary and secondary data (Ajayi, 2017).

Primary data

The primary and secondary data have many differences and the most important one is that the primary data is collected for the first time by the researcher for a specific study. According to Ajayi (2017), the researcher collects primary data to address a problem and find the solution. Since the primary data consist in collecting the data for primarily for the study purpose, this research method is considered original and objective (Ajayi, 2017). Primary data includes but not limited to questionnaires, surveys, observations, experiments, and interviews (Ajayi, 2017).

Secondary data

The secondary data is already collected and produced by other researchers (Ajayi, 2017). It is existing data collected and analysed in the past. This data is not originally designed for the purpose of the study used into; it might be collected for other purposes but used in future research and studies (Saunders et al., 2015). Using secondary data in research is rapid and easy comparing to primary data, which is considered complicated and time consuming (Ajayi, 2017). Secondary data includes books, journal articles, conferences, websites, videos, documentaries, and governmental publications (Ajayi, 2017).

Rational of this study

This study uses the primary and secondary data altogether. The primary data collection methods will be through qualitative and quantitative data collection through interviews and surveys.

The secondary data is used to address the research agenda of this thesis. According to Curwin and Slater (2007), each type of research benefits from secondary research; it is almost impossible to imagine any type of research not requiring the secondary data collection method. There exist many sources of data to use in a study as secondary data and these sources all depend on the research topic and objectives (Chivaka, 2018). The secondary data used in this research is collected from books, journal articles, newspapers, business reports, and conferences. The researcher relied on the University library for most of the data used in this thesis, mainly using peer-reviewed articles. Also, the researcher joined academic platform to access a wider range of documents such as ResearchGate and Academia. These platforms were used to widen the academic interaction of the researcher and to access articles not available in the university library, as you can request the article directly from the researcher. The reports used in this research are from OxfordEconomics, DellTechnologies and IBDO (Digital Transformation Report). Lloyds Bank Ltd where the researcher currently works provided these reports to assist with the research.

4.5 Research methods

The research questions, aims, objectives, and type of subject determine the appropriate research methods of a study (Jogulu & Pansiri, 2011). Each research is different from the other and adopting the appropriate research methods is imperative to achieve the goal of the research. Studies in management and business require different techniques to examine, explain, and provide an understanding in a specific topic (Jogulu & Pansiri, 2011). According to Saunders et al. (2015), the research methods are divided into quantitative, qualitative, or mixed methods. This research adopts mixed methods, which is a combination of qualitative and quantitative research approach (Saunders et al., 2012). The qualitative method is conducted through in-depth interviews, and quantitative method is conducted through large sample surveys. The management studies – becoming increasingly complex – require good techniques in data analysis to be able to explain and clarify the phenomenon (Saunders & Thornhill, 2012). For many years, the quantitative design is recognised as being the dominant technique used in data collection of management studies (Jogulu & Pansiri, 2011). This approach describes factors related to data collection such as the types of data to be collected, sample size, targeted audience, data collection procedures, and data analysis tools. From the twentieth century, the qualitative design began to gain the interest of researchers as an alternative approach to the quantitative methods (Jogulu & Pansiri, 2011). The qualitative methods have provided an option of interpretivist narrative analysis conducted using communication and observations (Jogulu & Pansiri, 2011). In recent years, the mixed methods also known as quantitative and qualitative methods have gained the researchers confidence and trust (Jogulu & Pansiri, 2011). This third methodological movement is widely recognised and used by management studies because it is known to be a deeply comprehensive technique (Tashakkori and Teddlie, 1998). The thematic and statistical data shaped by mixed methods lead to greater depth and breadth in the results and therefore the findings are more accurate with increased credibility (Jogulu & Pansiri, 2011).

According to Thakur and Srivastava (2000), mixed methods are more suitable for studies exploring how managerial strategic decisions are made in industries where the competitive advantages are of high importance and information is often unavailable or obsolete. Since reshoring phenomenon is new, and the research aim is to explore the drivers and barriers of reshoring manufacturing to the UK, and how the decision-making is implemented, the mixed methods are more suitable for this type of studies (Thakur and Srivastava, 2000). In this research, the quantitative approach is focused on examining the drivers and barriers factors of manufacturing reshoring in the UK. This method provides a statistical descriptive analysis through coded and categorized data that cannot be manipulated (Cooper and Schindler, 2006). It should be noted that the quantitative data collection purpose is not inferential but rather non-predictable descriptive statistics. The qualitative approach is more concentrated into tackling the decision-making process of reshoring, and how this phenomenon is implemented in real life. According to Creswell (2007), the qualitative method is suitable to examine a phenomenon related to the working environment of candidates by getting their opinions, views, attitudes and perceptions about a subject, which is the case of this study. In addition to this, the qualitative research method is recommended to use in explaining current phenomena related to manufacturing relocation decisions as it help develop frameworks, models, and theories (Coughlan and Coghlan, 2002). Therefore, this study qualitative method is adopted to obtain detailed explanation from interviewees about the driver and barrier factors, and the process of the strategic decisions and implementation of reshoring, based on the candidates experience and behaviour.

The qualitative and quantitative methods follow a concurrent design, also referred to as a convergent design through an embedded approach. The concurrent design means that the qualitative and quantitative data is collected and analysed within the same time frame (Fetters et al., 2013). This approach is convenient for this study because it proceeds by collecting the data in parallel and analysing the data after the completion of both the qualitative and quantitative data

collection. This technique involves separately collecting the data and merging the knowledge into one understanding (Fetters et al., 2013). In another hand, the embedding approach occurs when the quantitative and qualitative data collected is analysed and linked at multiple points (Fetters et al., 2013). This approach involves combinations of connecting, building, and merging qualitative data and quantitative data at different and multiple stages (Fetters et al., 2013). Also, as explained by Fetters et al. (2013), the embedded approach is suitable when the qualitative data collection is used to understand the context of the factors to provide detailed understanding about a phenomenon. This is the appropriate approach for this study since the quantitative data and qualitative data are completing each other. The quantitative data aim to provide descriptive, not predictable statistics for the reshoring factors, while the qualitative data aim to provide a contextual understanding for the process of reshoring. Fetters et al., (2013) explain the knowledge can be displayed through a framework that merges the findings into a practical methodology. According to Nastasi et al. (2007), there exist four types of frameworks (1) multistage; (2) an intervention; (3) a case study; or (4) a participatory research framework. This research produces a multistage mixed methods framework that involves multiple stages of data collection that include combinations of convergent approaches (Nastasi et al., 2007). Fetters et al., (2013) explains that this type of approach include multiple stages that involves convergent design designed for practical implementation or assessment, of a program or strategy, which is more convenient for this study.

Qualitative and quantitative methods

The qualitative approach is completed through semi-structured interviews, and the quantitative approach is completed through surveys as described below.

- **Interviews**

Data collection through interviews is the most common method in qualitative research (Jamshed, 2014). It consists of verbal questions and answers (Garcia-Rosello et al., 2015). There are two

types of interviews: structured or unstructured. The structured interviews can be categorised into semi-structured, lightly structured or in-depth interviews (Jamshed, 2014). The unstructured interviews are usually used in long-term field studies where the researcher let the respondents express themselves on their own way and pace (Jamshed, 2014). This study follows structured interview question though the semi-structured format. This is because the semi-structured interviews allow the researcher to ask open-ended questions that organise the interview questions in a way that allows the researcher to focus and explore a specific topic in-depth (Jamshed, 2014). This type of data collection is applied only once, and generally lasts from thirty minutes to an hour (Corbin and Strauss, 2015). This is appropriate for this research due to the timescale for completing the study; the research will not be able to interview the same candidates on several occasions. So, the researcher aim is to conduct the interviews once, and each interview is expected to last up to one hour. To achieve optimum use of interview session, the interview questions are structured into five main sections, as shown in the A*ppendix* (Corbin and Strauss, 2015). The first section is about the company and interviewee information. The second section asks the candidate questions about the previous location-decisions of the company. The third section is about the drivers and motivations of reshoring. Questions about barriers of reshoring come in the fourth section. Finally, the fifth section contains questions about the decision-making and implementations of reshoring. The interview questions are related to the core research objectives and all associated questions comprise the main question of the study. To capture the interview data of this research, the researcher opted for a combination of recording and note handwriting depending on the candidate consent.

- **Surveys**

Surveys are common in data collection for business field (Collis and Hussey, 2014). The survey method is considered helpful for gaining straightforward information from the candidates (Bryman and Bell, 2015). It is an inexpensive research method even though it targets a large

sample (Collis and Hussey, 2014). Also, surveys can be collected through different methods including email, messaging, postal, phone call, Internet self-completion questionnaires, and/or in person (Collis and Hussey, 2014). This method requires collecting the data and statistically analysing the results and generalizing them to a larger population (Collis and Hussey, 2014).

Postal, face-to-face and telephone data collection method is not the best option for the present research because of the time and costs involved, especially that the sample size is large and geographically widespread (Collis and Hussey, 2014).

Surveys using the email, messaging channels, and Internet can be adopted anytime convenient to the researcher and the participants (Saunders et al., 2007). From the candidate viewpoint, this method is suitable because it gives the respondent freedom to respond anytime they want (Bryman and Bell, 2015). The potential participants can be targeted from databases available in Internet through search agencies (e.g., ReshoreUK), and social media channels such as LinkedIn and Twitter (McDaniel and Gates, 2011). Also, the author has used their connections in Lloyd's bank to target a larger and focused audience. This method was selected because it allows reaching a larger focused sample in a shorter timeframe at the lowest cost (Collis and Hussey, 2014). The online surveys contain instructions, questions with dropdown menus, ticking boxes, sliders, and matrixes (Saunders et al., 2007). The survey website offers a wide range of customisation, animation, and colour choices based on the survey topic (McDaniel and Gates, 2011).

The survey drafted for this research includes 36 questions, as shown in the A*ppendix*. The questions were divided into three sections: general information about the company and the previous location experience of the firm, the reshoring experience of the company, the decision-making and implementation phase. The author has improved the quality of the survey through pilot testing with five versions' modifications till the final version.

4.6 Sample size

A sample size in a study involves identifying the appropriate sampling that represents a population because collecting data from a full population is basically impossible (Hair et al. 2010). Thus, a sample is considered a representation of a population only, while an entire population is described as the universe from which a sample is chosen (Saunders et al, 2015). In every study, the researcher must identify the number of candidates, and how these participants have been selected (Onwuegbuzie & Collins, 2007). Sampling strategies are primarily linked to the research question(s), objective(s), aim(s), and research design (Onwuegbuzie & Collins, 2007). This study aim is to identify the drivers and barriers of reshoring manufacturing and examine the decision-making process and implementation phase to be able to develop a practical framework to assist with future reshoring decisions. This research adopted quantitative and qualitative research methods combined concurrently. According to Onwuegbuzie & Collins (2007), generalisation can happen in both quantitative and qualitative research. In this study, the quantitative research represents a statistical generalisation, which mean the sample chosen for the research represent a generalisation to the findings (Onwuegbuzie & Collins, 2007). Qualitative research on the other hand tend to give an analytic generalisation that can generate a theory/model/framework based on selected experiences which can be generally applied to other cases (Firestone, 1993; Miles & Huberman, 1994). According to Sandelowski (1995), the numbering in qualitative research has no importance in ensuring the validity and reliability of the study. Sandelowski (1995) specified that the sample size should not be small because a small sample makes it difficult to reach saturation in data and theory, and information reliability. Also, the sample should not be large because a large sample makes it difficult to undertake a deep, case-oriented analysis (Sandelowski, 1995). According to Onwuegbuzie & Collins (2007), some methodologists such as Guest et al, (2006), Creswell (1998), and Morse (1994) provided guidelines for sampling size in qualitative methods based on the research design. Many methodologists agree that interview sampling should be around 12 interviewees (Guest, Bunce,

& Johnson, 2006); the authors did not consider the new phenomenon in their sampling guidance. However, this research is following Creswell (1998) and Morse (1994) that identify the interview sampling for new phenomenon to be between 6 and 10 participants.

This study includes manufacturing firms that have reshored back to the UK. Zhu et al. (2011) defines the industry of the manufacturing firms as producing goods for direct use or sell to other firms through a process of production, which involve labour, machines, tools, and chemicals. The manufacturing chosen in this research is UK-based. The target candidates from the companies for the interviews and survey are leaders and managers including general managers, supply chain managers, operation managers, project managers and supervisors. More specifically, any employee who has enough knowledge of the company manufacturing location decisions activity. The research aim is to distribute the surveys electronically. The anonymity and confidentiality measures for the participants in the interviews and surveys will be agreed with the candidates involved. Also, the respondents' statements will be organized in a specific coding strategy that enables only the authors to identify them.

4.7 Data analysis

As stated previously, this study is using the qualitative and quantitative data collection through in-depth interviews and surveys. The data will be analysed descriptively by using two softwares. The NVivo is used for analysing the qualitative data, and SPSS is used to analyse the quantitative data. The NVivo software helps to analyse and organise unstructured text, audio, video, and image data (Unknown, 2021). This includes interviews, focus groups, surveys, social media, web content and journal articles (Unknown, 2021). For the quantitative data that involves in-depth statistical analysis, most researchers agree that SPSS is one of the best analytical software solutions. The benefits of using SPSS are that it is flexible and customisable. Once the quantitative data is exported to SPSS, there are practically endless opportunities for statistical analysis.

Chapter 5

Results and Data analysis

5.1 Introduction

This chapter represent the results of the data analysis of the study. The research aim is to identify the reshoring process through the drivers and barriers of reshoring, as well as the decision-making and implementation phase of this phenomenon. To analyse the reshoring process components, the study integrated a concurrent design through an embedded approach. As discussed earlier in C*hapter 4, Section 4.5,* the qualitative methods are designed to provide a contextual understanding of the occurrence of the factors in the reshoring process, while the quantitative methods are used as a not predictable descriptive approach to investigate the factors of the reshoring process in the UK.

This chapter is presented through two parts. *Section 5.2* provides the qualitative data analysis using the NVivo software. This section includes an in-depth analysis of the conceptual framework phases though examining the drivers, barriers, decision-making and implementation of reshoring, as well as the emergence of the phenomenon. *Section 5.3* includes the quantitative data through a descriptive analysis using SPSS software. This part includes the results of the data analysis of the drivers, barriers, decision-making, and implementation of reshoring, which includes several factors involved in each phase and the new findings related to the UK manufacturing market.

5.2 NVivo analysis

The NVivo 12 software was employed for the qualitative data analysis. The purpose of the software usage was to simplify identifying the themes and coding the interview data (Dubois and Gadde, 2002). The interviewees' sentences are the unit of analysis and as suggested by Creswell (2014) the data process was correspondingly analysed. First, the researcher organised the data

into an identical format (Creswell, 2014). Second, the researcher read and revised the data to obtain a general view of the informants' responses (Creswell, 2014). This was done though highlighting the key words and adding notes to the files. Finally, the researcher stated the coding process based on the guidelines introduced by Tesch's (1990). For instance, the codes identified in the study were constructed from examining the sentences produced from the informants' responses. After identifying the codes, these codes were organised together by sections relating to the same topic. Then, the researcher labelled the codes and concepts into themes based on the concepts displayed in the conceptual framework in *Chapter 3, Figure 6 and Figure 7*. Also, new codes and concepts emerged from the coding. The researcher had to find descriptive label for the new themes and make the final categories.

Demographic analysis

The interview phase resulted in ten complete interviews. The interviewees were selected based on their profession and experience within the firm that has previously offshored and reshored back to the UK. *Table 4* displays the interviewees' profiles through their industry and profession within the company. Among the ten interviewees, two informants were in the electrical equipment industry and two informants were in the food industry. The bike manufacturer, apparel, pharmaceutical, automotive, vacuum, and clothing/footwear industry had one informant each. Regarding the professional experience, the informants were chosen carefully to be professionals with more than five years of experience to ensure knowledge about the topic. Most of the interviewees were directly involved in the reshoring decisions, exception was interviewee number seven who was indirectly involved in the reshoring decisions but had enough information and knowledge about the reshoring strategy because his job was to reconstruct the clothing supply chain in the home country and his strategy was based upon learning details about previous offshoring and reshoring experience. Also, to increase the credibility of the work, the interviewees had the opportunity to review and check the notes (Eriksson, 2015).

Table 2: Profiles of Interviewees

Interviewee	Industry	Profession	Years of Service
1	Apparels	Senior manager	5 years
2	Bike manufacturer	Owner	11 years
3	Electrical equipment	Owner	20 years
4	Electrical equipment	Operation manager	6 years
5	Pharmaceutical	Director	18 years
6	Food industry	Senior management	15 years
7	Clothing and footwear	Junior manager	7 years
8	Food industry	Senior manager	13 years
9	Automotive	Junior manager	8 years
10	Vacuum manufacturer	Sales manager	10 years

Reshoring process themes:

The *Figure 11* shows the reshoring process mapping results as displayed in the NVivo software. The round circles are the themes of reshoring process that have been established on the analyses of the interviewees' responses, which have been labelled based on the previous conceptual framework elements in *Figure 6 and 7*. The "child" sign in the arrows linking different themes is a code in NVivo software that signifies the cicles below the sign are sub-steps.

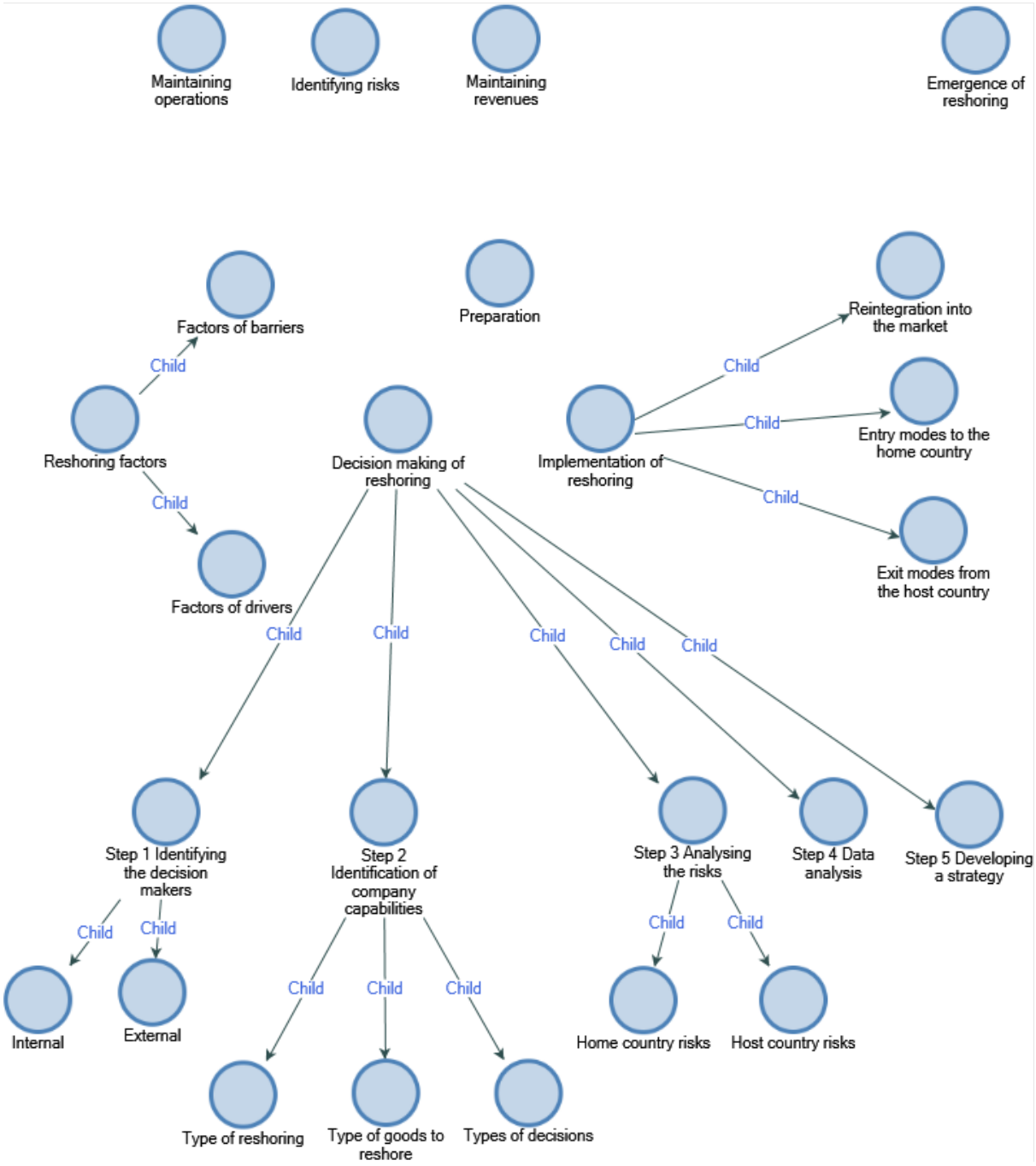


Figure 11: Map of Reshoring Process Issued from NVivo Software

The theme of **reshoring factors** includes reshoring drivers and reshoring barriers. This theme is very important, and the data analysis shows that this is the first step in the reshoring conceptual framework, as shown in *Chapter 3, Figure 6 & 7*. This is in line with the previous findings of authors such as Bals et al. (2016), Fratocchi et al. (2016), and Wiesmann et al. (2017). The data of the interviewees demonstrates the drivers and barriers as being a stepping-stone of the reshoring strategy. Though, the drivers of reshoring include the factors related to why the

firms chose to reshore the business activities back to the home country (Fratocchi et al. 2016; Wiesmann et al., 2017). Similar to Wiesmann et al. (2017) study, the data of this research show that identifying the driving factors for reshoring is essential for the firm because the reshoring strategy is based upon those factors. For example, in his own words, Interviewee 6 indicates that "Reshoring was mainly driven by low-quality issues […] the firm encountered trust problems with suppliers and third parties […] and protecting intellectual property was difficult in the host country […] corruption and weak infrastructure were a huge problem too", as shown in *Table 5*. This shows that the firm driver factors of reshoring are related to quality issues, intellectual property problems, corruption, and weak infrastructure. Another example is Interviewee 2 who declared "reshoring was a decision driven by the increase in costs in China […] this negatively affected costs related to labour, logistics, and raw material". In line with Wiesmann et al. (2017), this result indicates the reshoring strategy was driven by a change in the global economy, labour costs, logistic costs, and weak coordination between the host and home country. Moreover, the data show four out of ten companies declared having to re-evaluate the drivers of reshoring throughout the reshoring process to check if any new drivers emerged. As stated by Tate et al. (2014), the drivers of reshoring are unlikely to change in the short term; however, new drivers can emerge in the long-term. An illustration of this is the statement of Interviewee 7 who said the Clothing and Footwear Company has been reshoring the business operations over three years, and for this reason, in his own words the manager declared "the business used to revise the motivations of reshoring every quarter by adding and/or eliminating the drivers if needed". As stated by Interviewee 7, this step was essential to adjust the strategy to the new emerging driving factors. Similarly, the barriers of reshoring are key factors for the strategy (Wiesmann et al., 2017). However, the barriers have not been well researched in the literature (Wiesmann et al., 2017). Yet, the interviews data outcome shows the barriers are equally important as the drivers. The ten interviewees mentioned at least one barrier related to reshoring that has been a challenge in the decision-making and implementation of reshoring. For instance, Interviewee 8 stated

finding an insurance company in the home country that offers similar services to their offshore insurance was a critical barrier in the firm reshoring process. Also, Interviewee 1 declared the firm returning to the home country required buying or building a new factory, and this was challenging since finding the appropriate factory or land in the UK is very difficult. However, Interviewee 1 declared "the issue about this barrier is that it was not predicted". This shows the barrier emerged while implementing the decisions (Wiesmann et al., 2017). Interviewee 1 added "our company had to revise the reshoring strategy and mitigate the challenges it caused the operations [...] resulting in the reshoring relocation to be longer than expected".

The second theme is the **reshoring decision-making**. Several interviewees declared the decision-making of reshoring was done through different steps and plans. This is in line with Bals et al. (2016) suggestion that show the decision-making of reshoring requires different phases. The collected data demonstrates the decision-making contains five steps: identifying the decision makers, identifying the company capabilities, analysing the risks, data analysis, and developing a reshoring strategy.

Step 1 of the decision making of reshoring is to **identify the decision makers**, which is a new finding. While the conceptual framework of this study was based on previous research (see Bals et al., 2016), the first step of the reshoring process shows the firm should identify the capabilities, as described in *Chapter 2, Figure 7*. However, the data of the interviews reveal that the first step in the decision-making phase is to identify who will be involved and responsible for the decisions. The decision-makers have not been given much attention in the literature, and authors such as Gray et al. (2017), Hartman et al. (2017), Kinkel and Maloca (2009), and Boffelli et al., (2020) have stressed of the importance of identifying the employees involved in the decisions since they shape the reshoring strategy with their expertise and knowledge. Similarly, the interviews data show this step is essential in the reshoring process. As stated by Interviewee 2, "the firm identified who is involved in the reshoring decision […] this is important to separate the responsibilities and facilitate the flow of communication and information within the firm." in

addition to this, the research data shows this step is composed of two components, internal and external decision-makers. The internal decision-makers include people working in the firm. For example, Interviewee 6 has stated the boardroom and management were responsible for the reshoring strategy. And Interviewee 7 declared "the CEOs appointed from 2010 to 2016 were leading the decisions [...] and the managers of operation, supply chain, business analyst, and project managers were involved in multiple tasks." In the other hand, the external decisions-makers have been mentioned by eight out of ten interviewees. This shows that the external decision makers are of a great help to assist with the decisions of reshoring but are not necessary. For instance, Interviewee 2 declared the Welsh government have played a crucial role in reshoring the bike manufacturing back to Scotland. The Welsh government have supported the company with funds through ReshoreUKInitiatives, as well as connections and information about supplier; the CEO of the company claimed, "the reshoring has been a lot easier with the support provided from the government". Another example is Interviewee 8 who declared the company have built a strategy with the help of Manufacturing Advisory Service (MAS), which has a department that focuses on supporting companies with reshoring through providing a list of local suppliers and factories.

Step 2 of the decision-making involves **identifying the company capabilities**. This step requires the firm to identify the internal capabilities and abilities that would enable the management and decision-makers to construct a strategy to relocate back to the home country (Bals et al., 2016). The conceptual framework of Bals et al. (2016) study did not provide much detail on this step. Though, the data of this research revealed new findings. The first finding is that the firm should identify the type of reshoring in this step. For instance, seven out of ten interviewees stated the type of reshoring was from a not owned outsourced facility to other companies in the home country. The three remaining interviewees declared the type of reshoring was from a fully owned offshored facility to a wholly-owned facility in the home country. The SPSS analysis provides the different options from a UK statistical view, as shown in *Figure 18*. The data reveal a second

finding, which is that the firm should identify the type of the goods to reshore. The type of goods to reshore involves three types of reshoring (Wiesmann et al., 2017):

i. Manufacturing operations related to a finished good

ii. Manufacturing operations related to a sub-assembly

iii. Manufacturing operations related to a component.

In addition to this, the data results show the firm may have multiple choices depending on the business operations and activities. For instance, Interviewee 7 declared "our business has reshored different type of manufacturing [...] ready-to-wear, buttons & zips, and pieces of leather." This means the clothing firm have reshored operations related to finished goods (ready-to-wear), clothing sub-assembly components (buttons & zips), and clothing components (pieces of leather). Also, the data show a new finding, which is that the third step is identifying the type of decisions. The decisions can either be voluntary or corrective. According to Wiesmann et al. (2017), identifying the type of reshoring helps the firm to determine their capabilities. This is because voluntary decisions are usually less complex comparing to corrective decisions (Wiesmann et al., 2017). For example, Interviewee 2 declared the decisions were voluntary and for this reason the firm allowed enough time and funds to relocate the company activities back to the home country. In his own words, Interviewee 2 said "the company was not rushing to relocate back to the home country since the decisions were completely voluntary." Unlike corrective decisions, which are more critical and require more attention and care (Wiesmann et al., 2017). This is because the corrective decisions are a result of mistaken previous decision (Wiesmann et al., 2017), and this puts the company in a difficult situation. For example, Interviewee 7 declared "the reshoring was a corrective decision to previous mistakes […] the company was going through a critical period […] the reputation and image of the company was declining." The interviewee described this had a negative impact on the sales and revenues of the firm, and therefore the reshoring strategy main goal was to reconstruct and regain the brand image and competitive advantages. However, the funds and time that is usually very much needed in this

type of decision was not an available option for the company. The SPSS data provides a UK statistical view of the steps discussed in this section, as shown in *Table 17, 20, 21 and Figure 13,18.*

Step 3, **analysing the risks** is the third stage of the decision-making. This step is composed of two stages: host country related risks & home country related risks. The firm analysis should cover both aspects equally to achieve effective results. Also, the data collected shows that analysing the risks is a continuous task because the identification of those risks is emerging with every reshoring stage. For example, Interviewee 2 claimed the firm has been assessing the risks continuously in every step; however, when possible, the firm improvise future risks and solutions a step ahead. While Interviewee 3 stated "the firm focus was to identify and resolve current risks and obstacles and adapt the company strategy to the current situation." Thus, the data shows the analysis of risks is an emerging task that requires continuous identification and assessment. *Table 22* provides a UK statistical view of the risks.

Step 4 of the decision-making is the **data analysis.** The data of the interviews show this phase is characterised by an analysis and evaluation of the firm costs. For instance, Interviewee 5 declared, the pharmaceutical firm evaluated the costs related to the supply chain, logistics, infrastructure, materials, and labour. Interviewee 7 claimed the firms' internal analysts have completed the assessment of the data. It should be noted that the interviewees specified that the firm did not implement a full and complete evaluation of the costs because that it is time and energy consuming, which is in line with Gray et al. (2017) findings. For instance, the manager of the clothing & footwear firm declared "the company used ReshoreNow and ReshoreUK websites to identify the hidden costs related to the UK manufacturing." Similarly, Interviewee 2 who is the CEO of the bike manufacturing has claimed the firm have used ReshoreUK to help with the cost analysis. Other Interviewees 1, 6, and 7 claimed using platforms such as Acetool UK, Manufacturing Advisory Service, and Cdf-oplah to support the firm with the analysis of costs in reshoring.

Step 5 of the decision-making is to develop a reshoring strategy. In this step, the data of the interviews show the decision-makers produce a flexible strategy that involves a step-by-step plan. This includes the exit modes from the host country, entry modes to the home country, and the reintegration in the home country (Bals et al., 2016). For instance, Interviewee 7 declared the CEO of the company at the time of reshoring developed a strategy that involves buying the Chinese business partners first. Then, the luxury clothing and footwear brand pushed through a restructuring plan to regain a tighter control on the global image of the brand through marketing and advertising about the "Made in UK". The firm gave instructions on closing factories in Barcelona, New Jersey and South Wales, at the same time the firm started cutting international licensing ties and bringing retail stores under the company rein. Subsequently, by the time these steps were being implemented, the firm started building a second factory in the UK and began production in the first factory based in the Midlands. Moreover, the data shows this step involves the firm setting a timeframe and budget for relocating the business activities from the host country to the home country. For instance, Interviewee 2 declared, "the firm provided a specific budget [...] to the decision-makers for relocating the operations back to the UK." However, the funds were not enough for completing the strategy, and the company sought funding from the Welsh government through the ReshoreUK initiative, which was granted to support with the reshoring strategy.

The third theme of the reshoring process is the **preparation**. The preparation phase, as a step of reshoring has been introduced in Boffeli et al. (2020) study, and no explanation was given about this phase. Though, the data of this research shows that the preparation phase occurs repeatedly throughout the reshoring process. This means that the preparation phase can be done multiple times until the relocation is completed successfully, and this is important to re-adjust the strategy of reshoring to any unpredictability. To illustrate this, Interviewee 2 declared, "the brainstorming or preparation for relocation was a repetitive task [...] done through a series of meetings and briefings planned to discuss the progress of the strategy and to provide up to date

requirements assigned to everyone involved in the decisions [...] and to set timeframes." Moreover, the communication and coordination between the host and home country is very important in the preparation phase as stated by multiple interviewees.

The fourth theme of the reshoring process is the **implementation phase**. Bals et al. (2016) study suggested the implementation phase starts after the reshoring strategy is set up. However, the data of this research are in line with Boffelli et al. (2018) that shows the implementation phase of reshoring is a continuous overlap between the decision-making, the exit modes, entry modes, and reintegration to the home country. For example, Interviewee 2 declared, "the implementation of reshoring took one year and started with terminating the contracts abroad and shipping the machinery to the new production site in the UK […] the supply materials were ordered, and a pilot production was then established […] followed by regular production." Another example, Interviewee 4 claimed, "the decision-making and implementation took seven months, and the company produced in bulk and stored in the UK warehouse to cover any unexpected risks that may arise in the first pilot production […] this is before terminating contracts in the host country." Another example of implementation of reshoring is Interviewee 7 who said "the firm reshoring experience took more than 3 years [...] the long time was necessary to terminate the contracts abroad and to start building a second factory in the UK […] the firm started closing the multiple clothing factories in different country [...] at the same time building a production chain in the UK [...] production in the home countries started in the owned factory a short time before completing closing the factories abroad." These three examples show firm's apply different approaches depending on their capabilities. This shows that the decisions are emerging from the type of ownerships in the host country. In addition to this, the implementation is related to the degree of risks a company is willing to take. For instance, Interviewee 4 justified their approach by the fact that penetrating the home country was more difficult than expected due to issues related to the availability of suppliers and raw material. Thus, the firm had to make some adjustments to resolve the issues, which involve producing in bulk and storing in the UK before

terminating the contracts. While Interviewee 7 firm launched a marketing campaign about the "Made in UK" and the returning to the UK to improve the brand image and reputation, and eventually that helped the company to increase the sales and revenues.

Reshoring as an emergent strategy

The fifth theme is the **emergence of reshoring**. Since this research perception is that reshoring is an emergent phenomenon that requires an emergent strategy, some of the interview questions were drafted to explore the interviewees experience and opinion in this matter. The interviewees were asked questions such as if unexpected events happened in the decision-making and/or implementation of the reshoring strategies, what kind of unexpected events happened in the process of reshoring, and how did the company deal with this unpredictability. The data shows 7 out of 10 interviewees have stated unpredictability happened at some point of the decisions; however, only three out of ten interviewees stated that unpredictability was not presenting a major risk to the progress of the reshoring. For instance, Interviewee 4 declared, "the firm faced many challenges in the reshoring process [...] each step had unpredictability [...] supply chain problems were the major one [...] other examples are wrong materials delivered, problems with machinery, difficulties finding skilled labours, and late deliveries." The manager of the company stated the decision-makers had to re-adjust the strategies many times to solve the issues simultaneously when they occur. The managers interviewed also declared the firm mitigated these environmental uncertainties by allowing enough funds and time to complete the reshoring transition. Another example is Interviewee 7 who stated the firm had a long reshoring process, which took over 3 years. In that period, the company had multiple changes, not only in term of the relocation decisions and operations but also in the employees responsible for the decisions. In his own words, the interviewee declared "the employees responsible for the decisions have increased [...] the firm hired employees while reshoring to assist with the decisions and business operations [...]." In this context, the firm had multiple adaptations based on the new employees' experience and knowledge. In this business case, the manager declared

the company dealt with the environmental unpredictability by employing skilled people, as well as allowing reshoring over a long period of time with enough secured funds.

The sixth theme of the reshoring process is **maintaining the revenues**. The NVivo data shows that the company revenues are a priority in the reshoring process because the strategy requires high funds. Thus, maintaining the revenues is necessary throughout the process of reshoring and is crucial for the progress of the strategy (Benstead et al., 2017), and as declared by Interviewee 2 “the company revenues were very important [...] revenues were maintained while reshoring through continuous production and by increasing the volume to have enough supplies for our store to cover the first week of production in the home country.” The firm had to make sure the revenues are maintained during the reshoring transition, especially that the strategy requires high funds. In another example Interviewee 4 show the firm applied a different approach, which involve producing in bulk and storing in the home country before the termination of the contracts abroad in case anything goes wrong in the first productions, and this is to ensure the revenues are maintained regardless of the risks and challenges that the company may face. Another example is Interviewee 7 who stated, “the company has focused on the brand image and reputation through marketing campaigns before relocating back to the UK.” In this context, the advertisements about the return to the home country through the “Made in UK”, and improved sustainability has helped the company increase the sales and revenues of the firm. Therefore, the interviews show the firms have implemented different approaches to maintain the revenues; however, this can be divided into three important aspects: securing the contracts in the home country before exiting the host country, producing in bulk to secure the supply of three to six months in case any unpredictability happening in the home country, and increasing the marketing and advertisement about the return home to improve the brand image.

The seventh theme of the reshoring process is **maintaining the company operations**. The operations of reshoring are crucial for the survival of the company and maintaining the operations is the pillar of the company continuity (Boffeli and Johansson, 2020). Maintaining the

business operations is essential to sustain the revenues and ensure a continuous profitability (Benstead et al., 2017). The data shows the firm maintained the operations while reshoring in different ways. For example, Interviewees 2 and 5 followed an extremely cautious approach and did not terminate the contracts in the host country until the home country contracts were secured. This was to make sure the company does not lose access to the foreign market while the reshoring is still in progress. Interviewee 6 have applied a different approach, the company produced in bulk and stored in the home country warehouse to secure the supply of the six first months until the pilot production is completed successfully. Interviewee 7 has applied a similar approach while waiting for the new factory to be renovated to adapt to the new sustainable production. However, Interviewee 4 stated, "the firm has terminated the contracts and relocated to the home country before securing supplier contracts [...] critical issues happened when reshoring [...] the company had to invest more funds, time, and energy to resolve those problems before starting the production in the UK." In addition to this, Interviewee 6 stated the company have maintained efficient operations by separating the duties of the production and operation managers from the employees responsible for reshoring decisions who were mainly the boardroom and other decision-makers in the UK headquarter. The company managers' responsibilities remained the same and when the relocation was completed, the firm employees had access to detailed instructions supported by training to access the new information and knowledge regarding the relocated manufacturing. Also, multiple interviewees stated securing enough funds for the reshoring strategy was necessary to maintain the company operations.

The eight theme of the reshoring process is to **identify the risks**. The identification of the risks arose with each step of reshoring (Benstead et al., 2017). The risks are usually a threat to the firm ability to reshore, and the identification and resolving of risks are essential to ensure the company reshore successfully (Ciabuschi et al. 2019). However as said by Interviewee 4, "managing the risks with certainty is impossible, especially when there is not enough knowledge about the strategy implemented." Interviewee 6 provides an example of potential risks a firm can

face. In his own words, the manager declared "the risk of moving back to the UK was to not be able to find an insurance that offers the same benefits as China, especially that the company operations involve eggs incubation" The company have been researching and negotiating with the UK insurance companies for a long-time and ended up using a customised insurance service that costed the company more than expected. Another example is Interviewee 4 who stated the biggest risk the company encountered was to lose access to the host country suppliers. Also, Interviewee 2 stated the company risk was to find a suitable factory for the production back in the UK. *Table 22* provides a UK statistical view of the risks.

Table 3: Reshoring Process Coding Results

Antecedent	***Theme***	***Child***	***Informant***	***Quotations Example***
Reshoring process	Reshoring factors	Factors of drivers	2	"Reshoring was a driven by the increase in costs in China. This affects the labour, logistics, and raw material costs"
			4	"Reshoring was driven by the firm new strategies to be more sustainable, improve customer image, and be in proximity to customers to better meet their needs"
			6	"Reshoring was driven by the low-quality issues. There was problem with trust and protecting intellectual property was difficult in the host country. Corruption and weak infrastructure were a problem as well"
		Factors of barriers	8	"The difficulty with reshoring was to find a good insurance who offers similar services as the host country. This was very important for our food company because of the risks the industry involves"
			2	"The economic differences were a barrier. The price gap between the host and home country was large. The home country was

			labour, raw material, legal fees, and taxes were much higher than the host country"
		2	"The reshoring strategy was very difficult for our company. The lack of information and data was a barrier"
		1	"Returning back to the home country required a new factory. Finding the appropriate and suitable factory or land for building a factor was a big problem that slowed our reshoring process"
Reshoring decision-making	Identifying the decision makers	8	"The decision-making was done through a strategy built internally by managers and externally by Manufacturing Advisory Service (MAS)"
		6	"The boardroom and management"
		7	"The CEOs appointed from 2010 to 2016 were leading the decisions. In addition to the operation managers, supply chain managers, business analysed, and project managers."
		6	"The Welsh government supported with the reshoring decision
	Identifying the company capabilities	3	"The UK government helped through providing funding ReshoreUKInitiative"
		2 3 5 6 7 9	From a not owned outsourced facility to other companies in the home country
	Analysing the risks	2	The company has been assessing the risks continuously, and when possible improvising future risks and solutions a step ahead.
		3	"The focus was to assess the current risk and obstacle and adapting the company strategy to the actual situation."
		2 3 5 6 8	"The risks were either home country risks or host country risks"
	Data analysis	5 and 6	"The data analysis

			includes a full inventory of costs and risks. Based on the assessment, the company build a strategy that includes the exit modes from the host country and entry modes to the home country”
	Developing a reshoring strategy	1 4 5 2 6 8	“The company made a plan of how to implement reshoring, including the exit modes and entry modes to the UK.”
		3	“Our company made a strategy that consists of several steps on how to exit the host country, how to terminate contracts, and how to switch to the home country production. In addition to this, the strategy includes a short-term expectation of the first year of moving back to the UK.”
Implementation of reshoring-decisions	Exit modes from the host country	3	“Releasing the outsourced facility and ending licensing agreements”
		6	“The exit modes were through selling the factory and machinery in the host country.”
	Entry modes to the home country (UK)	1	“Partnership and wholly owned facility”
		2	“Moving to owned factory from external through alliances and Greenfield investment”
Preparation	__	2	“The decisions of reshoring were through a series of meetings and coordination between different departments to be able to make a strategy on how to reshore all operations in the best way.”
		4	“Each month we had a briefing on what we have done, and we make a preparation for next step until we completely reshored.”
		6	“The company

			prioritized communication and coordination between the host country and headquarters in the home country. We had to continuously have meetings to check the progress of reshoring and re-adapt the strategy to any changes."
		5	"Continuously adjusting the decision-making strategy and plan of reshoring."
Emergence of reshoring	__	8	"The reshoring decisions were filled with challenges and many unexpected events happened
			The reshoring decisions are not easy to implement. The company faced many challenges while reshoring."
		9	"Yes, many unexpected events happened. The UK manufacturing has completely changed since we moved to abroad"
Maintaining revenues	__	2	"The company revenues were very important. The company maintained the revenues while reshoring through continuous production and increasing the volume to have enough supplies for our store that covers the first week of production in the home country."
		1	"Maintaining the revenues was so hard because most of the time and energy of the company was focused on building strategies for the reshoring process. But we have tried to keep the production running as normal and when we were close to moving completely, we increased production to store in our warehouse to entry supply of six months just in case

			something goes wrong in home factory."
Maintaining operations	__	7	"The company continued the production. The brand realigned the clothing brand around the iconic trench coat. Focused on building an image through its strategy "Bringing back manufacturing to UK" and through sustainability."
		2	"The company produced in bulk to have enough supply to cover one year in case anything goes wrong in the first months"
		4	"The company did not stop production while reshoring. The company continued to produce, and we ensured the company employees and managers are not involved in the reshoring decisions, so their tasks remained the same while boardroom and headquarter were dealing with reshoring transition."
		5	"Our team had to make sure we stay afloat during this transition, especially that reshoring requires high funds. So, we did not terminate the contract abroad until we made a successful first production in the UK."
Identifying risks	__	3	"We mitigated all risks by taking on the process slowly. The company made sure the contracts were secured before moving completely to the home country"
		2	"Finding solution to the risks before completely moving to the home country"
		6	"We have allowed enough time and funds to support the decisions of reshoring. We have kept close attention of the market and made

sure we constantly adjust our decisions."

5.3 SPSS analysis

Descriptive Analysis:

To improve the understanding of the process of reshoring manufacturing in the United Kingdom, the descriptive statistics using SPSS captures the context for the above data. Therefore, presents the descriptive statistics as the circumstance in which the drivers, barriers, preparation, decision-making and implementation occur. The data were collected in May and June 2021 via an electronic survey. An invitation of 390 potential candidates with appropriate knowledge of manufacturing offshoring and reshoring was sent. Of those participants, 113 usable surveys were returned. These results are an estimate of response rate of approximately 29 percent. The low rate is explained by the novelty of the phenomenon (Wiesmann et al., 2017). Similar to Ellram et al. (2013) study, this research participants were all chosen primarily as being part of firms involved in offshore and reshoring manufacturing in the UK.

The data collection began with a pilot study of 15 respondents. The respondents were chosen to meet the criteria of the study. The returned pilot responses were separated from the larger survey and were not included in the results of the study. The only purpose of the pilot test was to refine, revise, and confirm the validity of the survey questions. Thus, the pilot testing has led to minor alterations. This has involved revising and refining the questions to meet the objectives of the study.

5.3.1 Demographic description

Table 4: The Industry of the Firms Participating in the Survey

The industry of the company				
	Frequency	Percent	Valid Percent	Cumulative Percent
Electronics	12	10.6	10.6	10.6
Automotive	15	13.3	13.3	23.9
Clothing and footwear	6	5.3	5.3	29.2
Textiles	7	6.2	6.2	35.4
Health and beauty	6	5.3	5.3	40.7
Food and beverages	13	12.4	12.4	53.1
Chemicals	11	9.7	9.7	62.8
Furniture and home furnishing	7	6.2	6.2	69
Apparels	3	2.7	2.7	71.7
Aerospace	2	1.8	1.8	73.5
Pharmaceuticals	7	6.1	6.1	79.6
Biomedical equipment	3	2.7	2.7	82.3
The company industry if other				
	Frequency	Percent	Valid Percent	Cumulative Percent
	93	82.3	82.3	82.3
Bicycle Manufacturer	2	1.8	1.8	84.1
Bikes manufacturer	1	0.9	0.9	85
Cleaning equipment	1	0.9	0.9	85.9
Construction material	1	0.9	0.9	86.8
e-bikes manufacturer	1	0.9	0.9	87.7
Electrical equipment	1	0.9	0.9	88.6
Fire equipment manufacturer	1	0.9	0.9	89.5
Food processing equipment	1	0.9	0.9	90.4
Leather manufacturer	1	0.9	0.9	81.3
Low-carbon ventilation equipment	1	0.9	0.9	92.2
Luggage manufacturer	1	0.9	0.9	93.1
Machinery	1	0.9	0.9	94
Packaging	1	0.9	0.9	94.9
Plastic manufacturer	1	0.9	0.9	95.8
Software equipment	1	0.9	0.9	96.7
Spectacle designer	1	0.9	0.9	97.6
Steel	1	0.9	0.9	98.5
Transportation equipment	1	0.9	0.9	99.4
UPVC Plastic extrusion	1	0.9	0.9	100

Table 5 shows the respondents' firm type. Studies such as Ellram et al. (2013), Fratocchi et al. (2016), Kinkel & Malorca (2009), Johansson et al. (2019), Stentoft et al. (2016) have targeted different type of industries to collect the necessary data, and likewise this research has followed the same pattern. The automotive, electronics, and chemicals represent the largest sample with a

percentage of 13.3%, 10.6%, and 9.7% respectively. The textile industry, home furnishing, and pharmaceuticals are represented equally (7%) each, while clothing & footwear, and health & beauty represent 6% of the participants. Finally, the apparels and biomedical equipment represent 3%. Other type of industries was involved in the study too, as shown in *Table 6*, such as the bicycle manufacturing, electrical equipment, fire equipment manufacturer, food processing equipment, leather manufacturer, low-carbon manufacturing equipment, luggage manufacturer, machinery, packaging, plastic manufacturer, software equipment, spectacle designer, steel, transportation equipment, UPVC plastic extrusion.

Table 5: The Management Level of the Participants

The managerial level of the candidate current work position				
	Frequency	Percent	Valid Percent	Cumulative Percent
Leader/Senior Management	42	37.2	37.2	37.2
Middle Management	34	30.1	30.1	67.3
Junior Management	20	17.7	17.7	85
Other Decision Maker	17	15	15	100

Of the survey respondents 42% were leader/senior managers including, 34% were middle managers, 20% were junior managers, and 17% were other decision-makers. Besides the leader and senior managers who are usually in the boardroom, the middle management, and junior management includes operation managers, plant managers, logistics managers, and supply chain managers. Other decision-maker responsibilities include financial officers, procurement officer, research and development managers, and technology officer. The survey respondents' average work experience within the firm is 5 years and all respondents have been involved in the reshoring decisions. Thus, we can conclude that the survey participants had a good knowledge about reshoring and are able to answer the questions in the survey concerning the drivers, barriers, decision-making and implementation process.

Table 6: The structure of the company

The structure of the company				
	Frequency	Percent	Valid Percent	Cumulative Percent
Sole Trader	23	20.4	20.4	20.4
Business Partnership	23	20.4	20.4	40.7
Limited Partnership	20	17.7	17.7	58.4
Limited Liability	2	1.8	1.8	60.2
Limited Company	44	38.9	38.9	99.1
Unincorporated association	1	0.9	0.9	100

Table 7 shows the structures of the firms involved in the survey. The structure of the company describes the type of firms involved in the reshoring experience. Limited company structure represents the largest percentage with 44%. This is followed by 23% of sole trader and similarly 23% partnership company type. The limited partnership represents 20%, while only 1% and 2% were limited liability and unincorporated association.

Table 7: Company size

The number of people employed in the company				
	Frequency	Percent	Valid Percent	Cumulative Percent
1 to 10	2	1.8	1.8	1.8
11 to 51	21	18.6	18.6	20.4
51 to 100	25	22.1	22.1	42.5
101 to 500	33	29.2	29.2	71.7
500+	32	28.3	28.3	100

Table 8 demonstrate the size of the company through the number of people working in the firm. The small companies represent 20.4%, while the medium sized firms represent 51.3%, and the large firms represent 28.3%. The medium sized companies represent the largest audience in this study, and this is in line with Ellram et al. (2017) that showed the SME are reshoring more than small and large firms.

Table 8: Offshoring countries

The offshoring country				
	Frequency	Percent	Valid Percent	Cumulative Percent
Asia	44	38.9	38.9	38.9
Africa	7	6.2	6.2	45.1
South America	6	5.3	5.3	50.4
North America	5	4.4	4.4	54.9
Australia	1	0.9	0.9	55.8
Europe	48	42.5	42.5	98.2
Canada	2	1.8	1.8	100

This study approached the candidates by asking if the companies had offshored and reshored their production previously. And *Table 9* shows the countries where the company offshored previously. Also, this indicates the country from where the company is reshoring. The data shows UK firms are highly reshoring from Europe and Asia by 42.5% and 38.9% respectively. This is surprising because previous studies show most companies are reshoring from Asia (see Di Mauro et al., 2018; Kinkel & Malorca, 2009; Joubioux & Vanpoucke, 2016; Heikkilä et al., 2018). Perhaps this is because UK manufacturers have considered proximity to the country and favoured European countries in their offshoring strategies. Then, the survey responses show 6.2% offshoring to Africa, 5.3% to South America, 4.4% to North America, and a low percentage of 1.8% to Canada, and 0.9% to Australia.

Table 9: Offshoring motivations

The motivation for offshoring is to reduce costs				
	Frequency	Percent	Valid Percen	Cumulative Percent
Yes	71	62.8	62.8	62.8
No	42	37.2	37.2	100
The motivation for offshoring is to access a new market				
	Frequency	Percent	Valid Percen	Cumulative Percent
Yes	36	31.9	31.9	31.9
No	77	68.1	68.1	100
The motivation for offshoring is to be closer to customers				
	Frequency	Percent	Valid Percen	Cumulative Percent
Yes	26	23	23	23
No	87	77	77	100
The motivation for offshoring is to access knowledge				
	Frequency	Percent	Valid Percen	Cumulative Percent
Yes	29	25.7	25.7	25.7
No	84	74.3	74.3	100
The motivation for offshoring is to access research and development				
	Frequency	Percent	Valid Percen	Cumulative Percent
Yes	11	9.7	9.7	9.7
No	102	90.3	90.3	100

Table 10 describes the motivation of offshoring. According to the survey responses, the main motivation for offshoring is cost reduction (up to 62.8%). This is in line with findings of Benstead et al. (2017), Di Mauro et al. (2018), Fabienne & Eric (2017), Heikkilä et al. (2018), and Johansson et al. (2019). The access to the new market represent 31.9%, while the access to knowledge is 25.7%, and the access to research and development represent the lowest percentage with 9.7%.

Table 10: Offshoring experience

Offshoring experience for the firm				
	Frequency	Percent	Valid Percent	Cumulative Percent
Highly satisfied	2	1.8	1.8	1.8
Satisfied	13	11.5	11.5	13.3
Neutral	27	23.9	23.9	37.2
Unsatisfied	40	35.4	35.4	72.6
Very unsatisfied	31	27.4	27.4	100

Table 11 represents the offshoring experience for the firm. The data collected shows 31% and 40% of the firms were very disappointed from their offshoring strategies. This does not

necessarily mean the offshoring experience was disappointing from the beginning; it may be that the firm long-term offshoring goals have changed over-time due to environment uncertainties (Boffeli et al, 2018). Then, the table shows 27% of offshoring firms mentioned the offshoring experience was neutral, while 15% were satisfied about their offshoring experience. These are usually the firms' that chose to reshore as a voluntary choice and not a corrective mechanism (Wiesmann et al., 2017).

5.3.2 Drivers of reshoring

Table 11: Drivers of reshoring

Changes in the global economy					Access to highly skilled employees				
	Frequency	Percent	Valid Percent	Cumulative Percent		Frequency	Percent	Valid Percent	Cumulative Percent
Yes	58	51.3	51.3	51.3	Yes	11	9.7	9.7	9.7
No	55	48.7	48.7	100	No	102	90.3	90.3	100
Political risks					Changing to automation				
	Frequency	Percent	Valid Percent	Cumulative Percent		Frequency	Percent	Valid Percent	Cumulative Percent
Yes	37	32.7	32.7	32.7	Yes	20	17.7	17.7	17.7
No	76	67.3	67.3	100	No	93	82.3	82.3	100
A change in labour costs					Higher productivity among staff				
	Frequency	Percent	Valid Percent	Cumulative Percent		Frequency	Percent	Valid Percent	Cumulative Percent
Yes	51	45.1	45.1	45.1	Yes	6	5.3	5.3	5.3
No	62	54.9	54.9	100	No	107	94.7	94.7	100
Instability or change in exchange rates					Awareness of environment impact				
	Frequency	Percent	Valid Percent	Cumulative Percent		Frequency	Percent	Valid Percent	Cumulative Percent
Yes	46	40.7	40.7	40.7	Yes	26	23	23	23
No	67	59.3	59.3	100	No	87	77	77	100
Increased competition on resources, or change in availability					Changing to sustainable options				
	Frequency	Percent	Valid Percent	Cumulative Percent		Frequency	Percent	Valid Percent	Cumulative Percent
Yes	59	52.2	52.2	52.2	Yes	34	30.1	30.1	30.1
No	54	47.8	47.8	100	No	79	69.9	69.9	100
Decrease in growth opportunities driver					Innovation and R&D creation of new products				
	Frequency	Percent	Valid Percent	Cumulative Percent		Frequency	Percent	Valid Percent	Cumulative Percent
Yes	42	37.2	37.2	37.2	Yes	14	12.4	12.4	12.4
No	71	62.8	62.8	100	No	99	87.6	87.6	100
Low quality					High coordination costs				
	Frequency	Percent	Valid Percent	Cumulative Percent		Frequency	Percent	Valid Percent	Cumulative Percent
Yes	40	35.4	35.4	35.4	Yes	22	19.5	19.5	19.5
No	73	64.6	64.6	100	No	91	80.5	80.5	100
Theft of intellectual property					Risk of disruption				
	Frequency	Percent	Valid Percent	Cumulative Percent		Frequency	Percent	Valid Percent	Cumulative Percent
Yes	18	15.9	15.9	15.9	Yes	15	13.3	13.3	13.3
No	95	84.1	84.1	100	No	98	86.7	86.7	100
High rates of turnover					Wrong assumption of benefits and risks in the offshoring decisions				
	Frequency	Percent	Valid Percent	Cumulative Percent		Frequency	Percent	Valid Percent	Cumulative Percent
Yes	11	9.7	9.7	9.7	Yes	23	20.4	20.4	20.4
No	102	90.3	90.3	100	No	90	79.6	79.6	100
Lack of trust and commitment among staff of suppliers					Lack of knowledge about the host country during offshoring decision				
	Frequency	Percent	Valid Percent	Cumulative Percent		Frequency	Percent	Valid Percent	Cumulative Percent
Yes	18	15.9	15.9	15.9	Yes	12	10.6	10.6	10.6
No	95	84.1	84.1	100	No	101	89.4	89.4	100
Innovation and R&D creation of new products					Underestimations of facts in offshoring decisions (bandwagon effect)				
	Frequency	Percent	Valid Percent	Cumulative Percent		Frequency	Percent	Valid Percent	Cumulative Percent
Yes	15	13.3	13.3	13.3	Yes	12	10.6	10.6	10.6
No	98	86.7	86.7	100	No	101	89.4	89.4	100
Promote community					Over-estimation of cost savings during offshoring decision-making				
	Frequency	Percent	Valid Percent	Cumulative Percent		Frequency	Percent	Valid Percent	Cumulative Percent
Yes	8	7.1	7.1	7.1	Yes	26	23	23	23
No	105	92.9	92.9	100	No	87	77	77	100

Identifying the drivers of reshoring are of a great interest to this research, and as shown in the NVivo data, identifying the drivers of reshoring represent the first step towards reshoring. Thus, *Table 12* addresses the first research question by performing a descriptive analysis to identify the pushing factors for reshoring in the UK manufacturing. While studies that explored drivers exist

for other countries such as USA, Germany, and Italy (see, Di Mauro et al., 2018; Kinkel & Malorca, 2009; Joubioux & Vanpoucke, 2016), the UK reshoring motivations remain very scarce. The participant had a list of 26 driving factors divided into five categories to choose from: Global Competitive Dynamic, Host country, Home Country Drivers, Supply Chain Drivers, and Firm-Specific Drivers. Dividing the factors into categories is important to know which category is the main driver for manufacturers to reshore from a UK perspective. In addition to the 26 drivers included in the survey, the participants were able to add other drivers related to their experience, and this is a way to explore new drivers related to the UK market, these are described in the *Table 12*.

Table 12 classifies the drivers of reshoring by reporting their percentages. The database shows a large percentage of the following factors: change in the global economy (51.3%) – increased competition on resources or change in availability (52.2%) – a change in labour costs (45.1%). This supports Martínez-Mora and Merino (2014) and Benstead et al. (2017) findings that highlight the reshoring is driven by global economic changes. For example, the remarkable increase of the Chinese and western economic growth (Martínez-Mora and Merino, 2014). Also, labour cost is a key driver in both literature and studies such as Benstead et al. (2017), Pearce (2014), and Wu and Zhang (2014). A case study conducted by Benstead et al. (2017) supports these findings by providing case evidence that labour costs are a main driver for reshoring strategies. However, unlike the findings of this thesis that increased competition on resources and a change of availability is a highly relevant driver, studies such as Benstead et al. (2017) argue this driver was significantly low in their research.

A medium significance in the data was found in the following drivers: decrease in growth opportunities (37.2%) – low quality (35.4%) – political risks (32.7%) – changing to sustainable options (30.1%). Studies such as Kinkel and Maloca (2009); Canham and Hamilton (2013); Kinkel (2012); and Kinkel and Zanker (2013) are supporting the view that low quality drives reshoring decisions. However, these studies show quality issues was a highly significant driver

for returning to the home country while this thesis data show a medium significance. Also, the data supports Kinkel (2012) study that shows political risks and growth opportunities have an important impact in driving the reshoring decisions. However, there is missing knowledge regarding sustainability. Very few studies have mentioned sustainability as a driver in their research while this in an interesting factor in this study.

Also noteworthy is the low significance shown by respondents in our data to the following: offshoring decision-making (23%), wrong assumption of benefits and risks in the offshoring decisions (20.7%), high coordination cost (19.5%), bandwagon effect (10.6%), innovation and creation of new products (13.3%), innovation and R&D of creation of products, lack of trust and commitment among staff of suppliers (15.9%), theft of intellectual property (15.9%), risk of disruption (13.3%), lack of knowledge about the host country (10.6%), promote community (7.1%), high rates of turnover (9.7%), promote community (7.1%), higher productivity among staff in the home country (5.3%). Surprisingly, the bandwagon effect has been found to be low in this study, while it was shown to be a significant driver in studies such as Gray et al. (2013), and Kinkel and Maloca (2009).

Table 12: Other Drivers of Reshoring

	Frequency	Percent	Valid Percent	Cumulative Percent
Better opportunity emerged in home country	1	0.9	0.9	7
Better workforce & technology in the home country	1	0.9	0.9	77.9
Change in the global warming	1	0.9	0.9	78.8
Corruption	2	1.8	1.8	80.5
Weak legistlation in the host country	1	0.9	0.9	81.4
Regaining control over production	2	1.8	1.8	83.2
Government support for relocation	3	2.7	2.7	85.9
Improve brand image	2	1.8	1.8	87.7
Improve customer service	1	0.9	0.9	88.6
Incident due to a chemical	1	0.9	0.9	89.5
Increase awareness of the made-in-effect	1	0.9	0.9	90.4
Increased production costs	1	0.9	0.9	91.3
Legal Matters	1	0.9	0.9	92.2
Made in effect	4	3.6	3.6	95.8
Minimising carbon footprint	1	0.9	0.9	96.7
Proximity to customers	1	0.9	0.9	97.6
Reducing carbon footprint	1	0.9	0.9	98.5
Reputational damages	1	0.9	0.9	99.1
Termination of contracts in the host country	1	0.9	0.9	100

As mentioned previously, the respondents had the ability to add any factor that drove their decisions, as shown in *Table 13*. The data allowed us to identify 22 new factors. The very frequent response claimed by some participants was the "made in effect", improving customer service, and improving the brand image. The "made in effect" has been mentioned in previous studies such as Robinson & Hsieh, (2016). Similarities to Robinson & Hsieh (2016) case evidence of "Burberry" retailer were found through the "made in effect", that has been mentioned in this survey by firms' in apparel, fashion, and cosmetic product.

Unlike the other factors, we do not consider the changes in the global warming and reducing and minimising carbon footprint as new factors but rather sub factors for sustainability (Wiesmann et al., 2017). And as mentioned earlier, the sustainability is moderately present in the survey.

Other responses were corruption in the host country, government support for relocation, and regaining control over production, reducing reputational damages, legal matters, and termination of contracts in the host country. These are new factors arising from the survey outcomes.

5.3.3 Barriers of reshoring:

Table 13: Barriers of reshoring

Economic difference					Lack of flexibility in the labour market				
	Frequency	Percent	Valid Percent	Cumulative Percent		Frequency	Percent	Valid Percen	Cumulative Percent
s	50	44.2	44.2	44.2	Yes	8	7.1	7.1	
	63	55.8	55.8	100	No	105	92.9	92.9	
Instability in exchange rates					Growing demand for, and shartages of accessible transportation				
	Frequency	Percent	Valid Percent	Cumulative Percent		Frequency	Percent	Valid Percen	Cumulative Percent
s	22	19.5	19.5	19.5	Yes	14	12.4	12.4	
	91	80.5	80.5	100	No	99	87.6	87.6	
Large differences in resource availability					Inability to provide services related to the product				
	Frequency	Percent	Valid Percent	Cumulative Percent		Frequency	Percent	Valid Percen	Cumulative Percent
s	36	31.9	31.9	31.9	Yes	12	10.6	10.6	
	77	68.1	68.1	100	No	101	89.4	89.4	
Risk of loosing supplier knowledge					Increased demand on customisation				
	Frequency	Percent	Valid Percent	Cumulative Percent		Frequency	Percent	Valid Percen	Cumulative Percent
s	40	35.4	35.4	35.4	Yes	11	9.7	9.7	
	73	64.6	64.6	100	Yes	102	90.3	90.3	
k of loosing access to raw materials and components that are only available in the host country					Too late or too costly to go back to the home country				
	Frequency	Percent	Valid Percent	Cumulative Percent		Frequency	Percent	Valid Percen	Cumulative Percent
s	40	35.4	35.4	35.4	Yes	14	12.4	12.4	
	73	64.6	64.6	100	No	99	87.6	87.6	
Risk of loosing supplier knowledge					Difficulties in implementing reshoring process				
	Frequency	Percent	Valid Percent	Cumulative Percent		Frequency	Percent	Valid Percen	Cumulative Percent
s	43	38.1	38.1	38.1	Yes	44	38.9	38.9	
	70	61.9	61.9	100	No	69	61.1	61.1	
Stricter environment legislation					Lack of capacity, resources and internal competencies				
	Frequency	Percent	Valid Percent	Cumulative Percent		Frequency	Percent	Valid Percen	Cumulative Percent
s	34	30.1	30.1	30.1	Yes	16	14.2	14.2	
	79	69.9	69.9	100	No	97	85.8	85.8	
Lack of shortage of raw materials and components					Lack of proper decision support				
	Frequency	Percent	Valid Percent	Cumulative Percent		Frequency	Percent	Valid Percen	Cumulative Percent
s	18	15.9	15.9	15.9	Yes	18	15.9	15.9	
	95	84.1	84.1	100	No	95	84.1	84.1	
Lack of shortage of highly skilled staff					Lack of information and communication about reshoring within the busine				
	Frequency	Percent	Valid Percent	Cumulative Percent		Frequency	Percent	Valid Percen	Cumulative Percent
s	20	17.7	17.7	17.7	Yes	30	26.5	26.5	
	93	82.3	82.3	100	No	83	73.5	73.5	

The barriers of reshoring are not well studied in literature. These are of a big interest for this research, and the data analysis of *Table 14* respond to the research *question 2*. Also, this represents the second step of the conceptual framework as described in the NVivo *Section 5.2*. *Table 15* data are based on the barriers identified from the literature, more specifically from Wiesmann et al., (2017) study.

The study aimed to shed light on the barriers factors from a UK perspective. Even though, the data shows low percentages of the barriers factors in the UK. The study is the first to test the barriers factors from a UK lens, and gives an idea of the potential barriers and risks that may affect returning back to the home country. In this sense, five barriers' factors have been frequently stated by the reshoring firms: Economic differences between the home and host country (44.2%) – difficulties of implementing reshoring decisions (38.9%) – a risk of losing

supplier knowledge (35.4%) – large differences in resources availability (31.9%) – stricter environment legislation (30.1%). These are similarly identified in Ellram et al. (2013), Kinkel and Maloca, (2009), and Wiesmann et al. (2017) findings. However, this thesis finding have similarities with Engström et al. (2018) results. The economic differences between the home and host country, a risk of losing supplier knowledge, and differences in resources availability are highly significant in their study as well.

Unlike Wiesmann et al. (2017) findings, this study data shows low significance in the following factors, mainly related to the home country: inability to provide services related to the product (10.6%), lack of shortage of highly skilled staff (17.7%), lack of shortage of raw materials and components (15.9%), the increased demand on customisation (9.7%), lack of flexibility in the labour market (7.1%).

Moreover, this survey data shows a low significance in the factors related to the reshoring decisions, a lack of information and communication about reshoring within the business (26.5%), lack of proper decision-support (15.9%), too late or too costly to go back to the home country (12.4%), growing demand for and shortages of accessible transportation (12.4%).

Table 14: Other barriers

Other barrier				
	Frequency	Percent	Valid Percent	Cumulative Percent
Securing contracts with suppliers	2	1.8	1.8	83.2
Finding a factory in the UK	5	4.5	4.5	85
Change in resources availability	1	0.9	0.9	89.5
Changing to automation	1	0.9	0.9	90.4
Finding a land for constructing a factory	2	1.8	1.8	91.2
Finding skilled employees	1	0.9	0.9	93
High costs for reshoring	5	4.5	4.5	97.5
Psychological challenges	1	0.9	0.9	98.4
Reputation damages	2	2.7	2.7	100

Table 15 shows the new factors mentioned by the respondents. The data shows 9 new barriers and indicates the most frequent barrier among manufacturers was finding a new factory in the UK, as well as high costs related to the reshoring strategy. These have been equally mentioned

and represent 10 out of 20 responses. Similarly, finding a land for constructing a factory have been mentioned by two respondents. While finding a new factory in the UK and finding a land for constructing a factory are both related to factory and production site, this thesis considers both factors under factory and production side issues. Other barriers are securing supplier contracts in the home country and reputation damages from production in the host country, which have been mentioned by two respondents.

The change in resource availability is not going to be considered since this was an option within the barriers. However, a respondent has mentioned changing to automation as a barrier while the literature recognises it as a driver only (Wiesmann et al., 2017). Perhaps, as our data show, automation should be considered both as a driver or barrier due to the challenges either financial or technical it may involve for the firm.

5.3.4 Decision-making and implementation

- **Types of the decision makers**

Table 15: Type of decision-makers

Did the company manage the decision-making internally?				
	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	113	100	100	100
Did the company manage the decision-making externally?				
	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	95	84.1	84.1	84.1

Identifying the company decision-makers represent the first step in the decision-making of reshoring, as represented in the NVivo data. Previous studies did not pay much attention to the decision-makers; however, authors such as Gray et al. (2017), Hartman et al. (2017), Kinkel and Maloca (2009), and Boffelli et al., (2020) have stated the decision-makers should be considered in future studies because the reshoring strategy efficiency is interconnected with the employees responsible for the decisions. Since the reshoring strategy is complex, the firm can either conduct the decisions of reshoring internally, externally, or both. The *Table 16* shows that 100% of

respondents claimed conducting the decisions of reshoring internally. Out of all respondents, 95% mentioned that they seek external support to assist with the reshoring decision-making. Thus, the data bellow provides information about different types of internal decision-makers and external decision-makers.

- **Reshoring internal decision-makers**

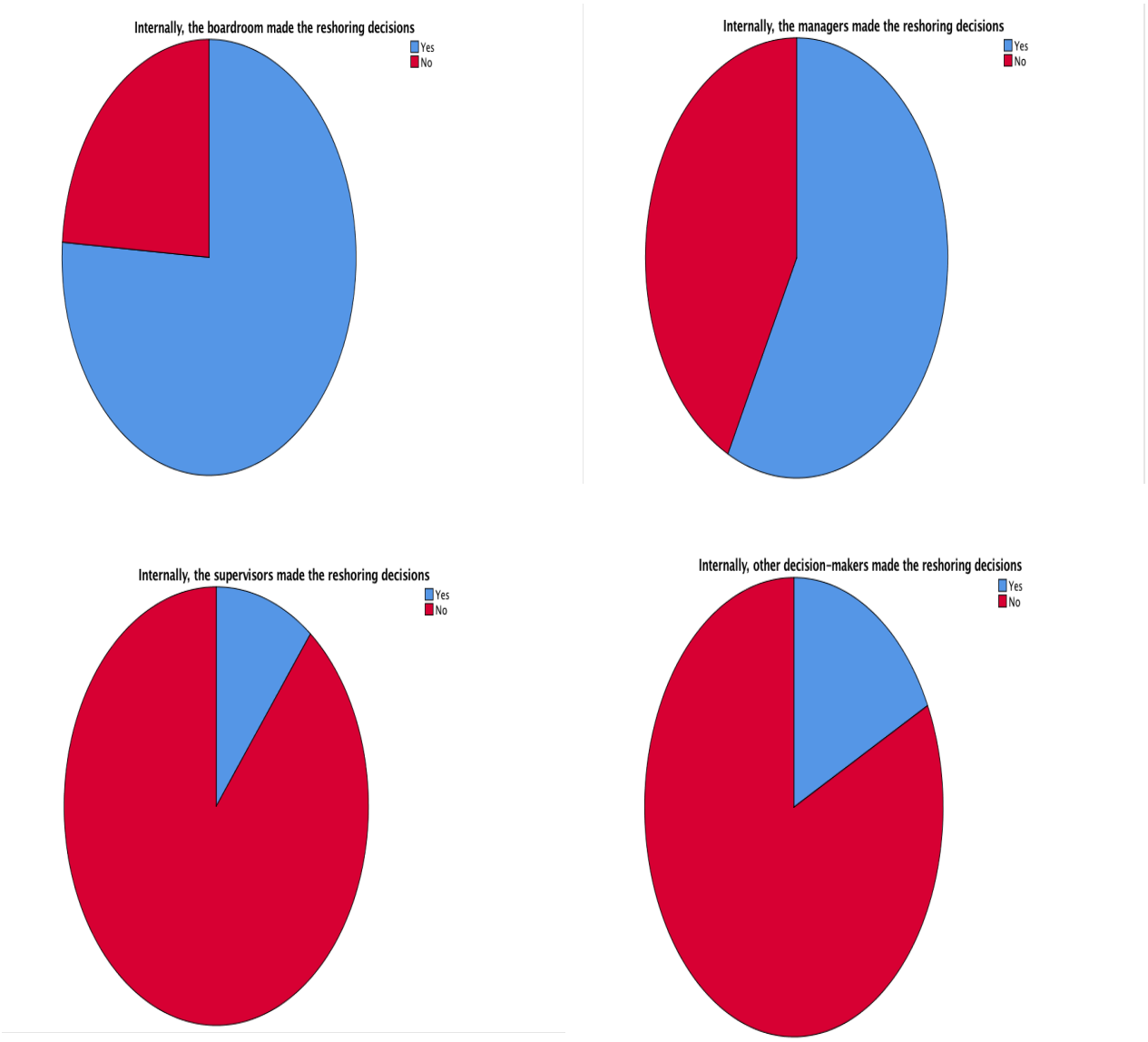
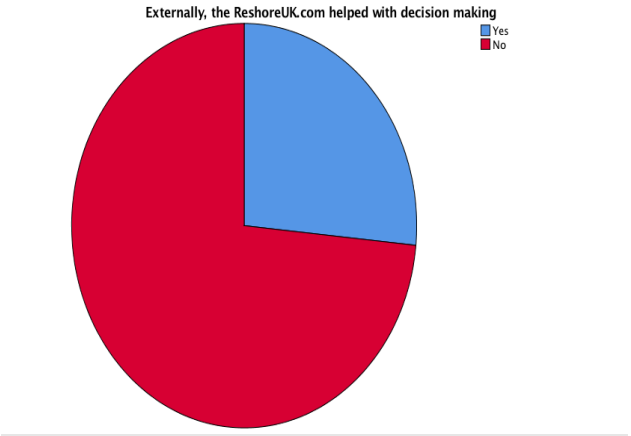


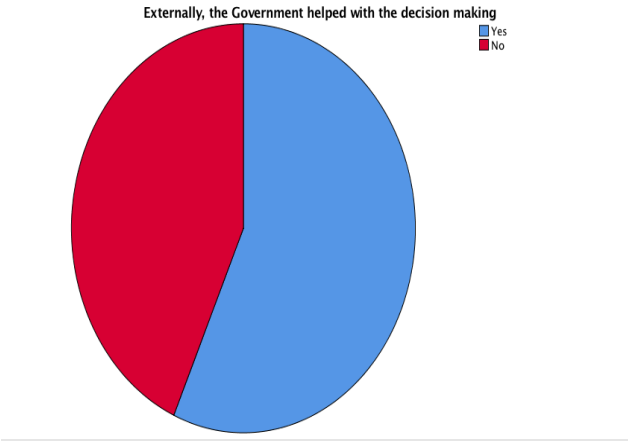
Figure 12: Internal decision-makers

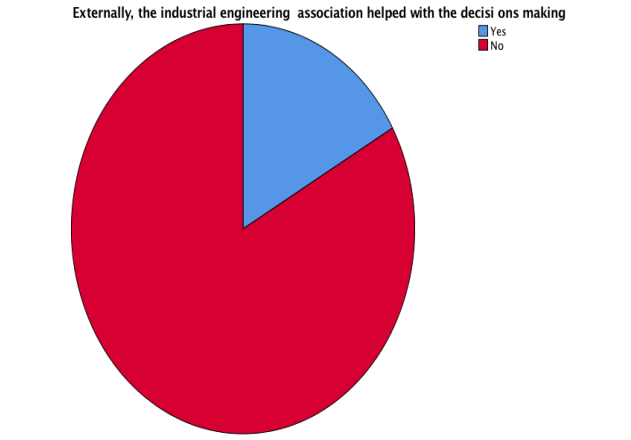
The *Figure 13* shows the internal decision-makers of reshoring. The survey questions allowed the respondent to choose who was involved in the firm reshoring strategy. The boardroom represents

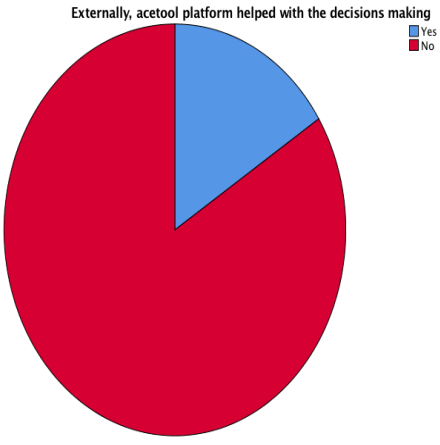
the largest percentage with (76.1%). This includes the owners, leaders, and directors. The manager decision making represents (57.5%). This includes operation managers, logistic management, product managers, sales managers, HR managers, data managers, and marketing managers. The least interacted in the decisions are supervisors with (10.6%), and other decision-makers (17.7%). The other decision makers include partners, practice managers, general practitioners, and research and development responsible.

- **Reshoring external decision-makers**









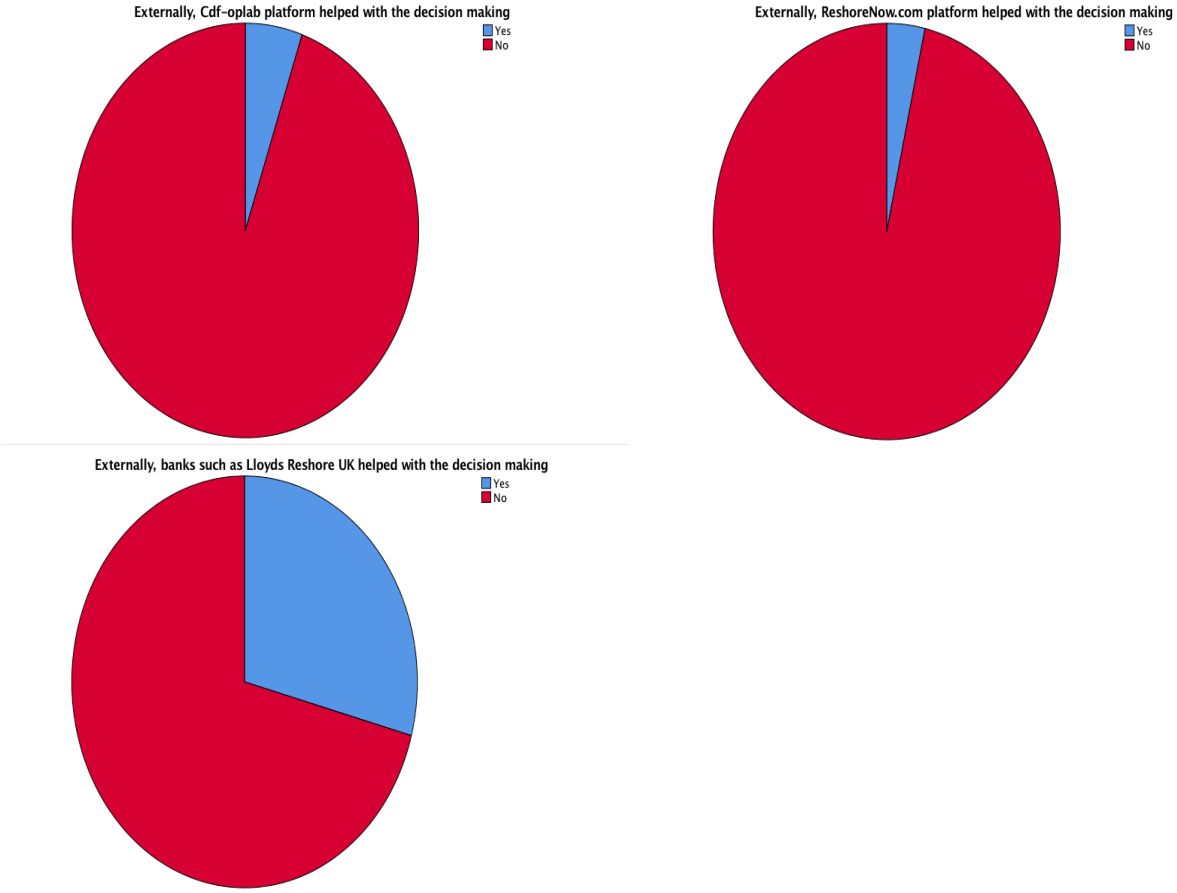


Figure 13: External decision-makers

Externally

The *Figure 14* shows the external decision-makers of reshoring. The government is frequently used as an external decision helper with and represent a percentage of 56.6%. This is followed by banks (29.2%), ReshoreUK platform (26.5%), Industrial Engineering Association (16.8%), and Acetool platforms. The least mentioned are Cdf-oplab (5.3%) and ReshoreNow (3.5%).

Table 16: Other external decision-makers

Did any other websites, institutions, or practitioners helped with the decision making?			
	Frequency	Percent	Valid Percent
Legal Organisations	1	0.9	0.9
Lloyds Bank	1	0.9	0.9
Manufacturing advisory service	4	3.5	3.5
Manufacturing technology center (MTC)	1	0.9	0.9

The respondent of the survey had an option to mention the decision makers who helped with decision if not within the previous list. *Table 17* shows that four respondents mentioned Manufacturing Advisory Service (MAS) as external decision makers. The legal organisations,

Lloyd's bank, and Manufacturing Technology Center (MTC) were mentioned by one respondent each.

- **Employee(s) recruited to assist with the reshoring decisions:**

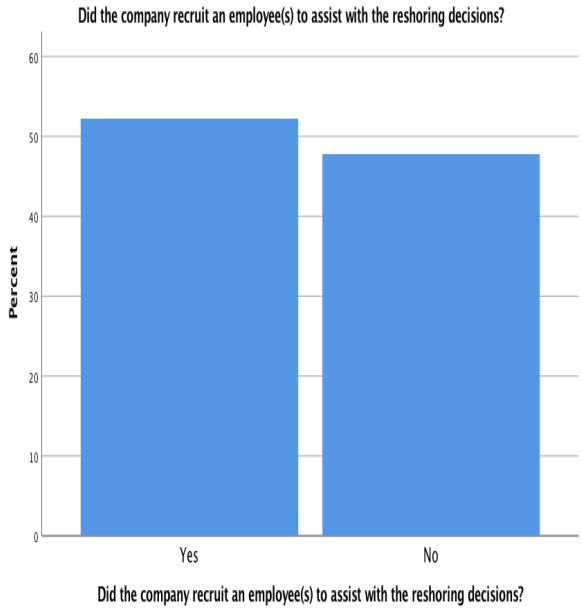


Figure 14: Employee recruitment

Table 17: Employees hired to assist with reshoring

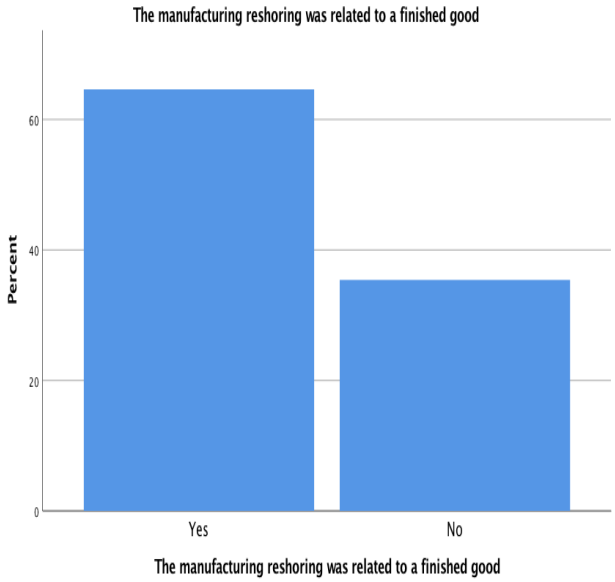
	Frequency	Percent	Cumulative Pe
A reshoring consultant	1	0.9	
Compliance manager	4	3.2	
Coordination manager	5	4.5	
Research and development	1	0.9	
HR manager	2	1.8	
Legal advisor	3	2.7	
Financial manager	1	0.9	
Operation manager	4	3.2	
Project Manager	30	27	
Training consultant	5	4.5	

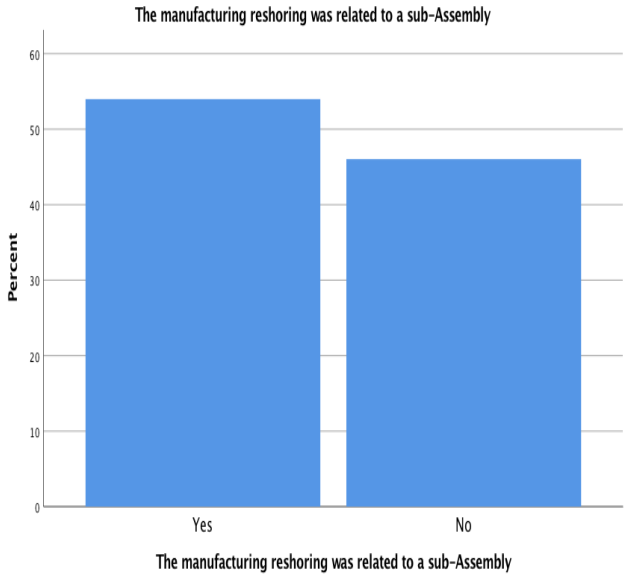
As part of the previous question about the decision-making responsible, the *Figure 15 and Table 18* shows almost 55% of the respondents stated they hired an employee(s) to assist with the decisions of reshoring. The respondents had the option to specify the job title of the employee(s) hired to assist with the reshoring. Thus, the largest percentage represent 27% of those respondents who specified the recruited employee was a project manager, 4.5% mentioned the employee was a coordination manager, and evenly 4.5% of the respondents claimed the employee was a training consultant. Equally, 3.2% of survey respondents stated they hired operation managers and compliance managers. One respondent mentioned employing a reshoring consultant, financial manager, and research & development responsible.

- **Type of goods to reshore:**

Table 18: Type of Reshoring Manufacturing

The manufacturing reshoring was related to a finished good				
	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	73	64.6	64.6	64.6
No	40	35.4	35.4	100
The manufacturing reshoring was related to a sub-Assembly				
	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	61	54	54	54
No	52	46	46	100
The manufacturing reshoring was related to a component				
	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	49	43.4	43.4	43.4
No	64	56.6	56.6	100





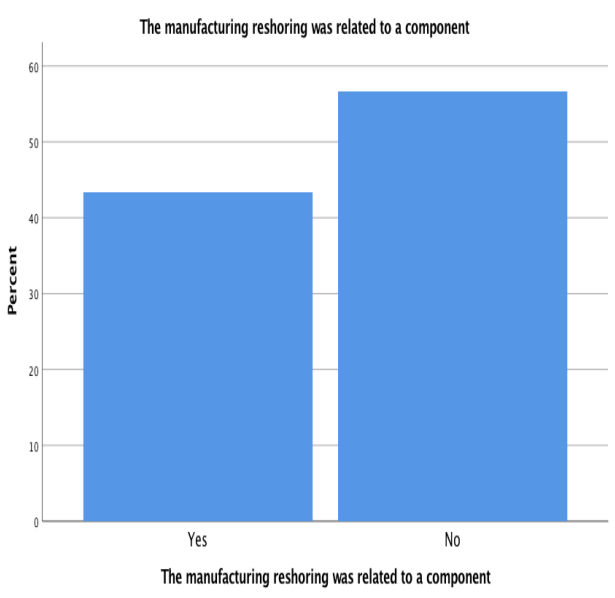


Figure 15: Type of Reshoring Manufacturing

Table 19 shows the type of manufacturing reshoring and *Figure 16* is an illustration of those percentages. As shown in the NVivo data, identifying the type of reshoring is essential to recognise the company capabilities. *Table 19* show this includes reshoring related to a finished good that represent 64.6%, and 54% of reshoring are related to a sub-assembly, and 43.4% related to a component. Also, the firm may have more than one type of reshoring, as explained in more details in NVivo analysis.

- **Type of decisions**

Table 19: Type of reshoring decisions

Was Reshoring a voluntary option or a corrective mechanism?				
	Frequency	Percent	Valid Percent	Cumulative Percent
Reshoring was a voluntary option	67	59.3	59.3	59.3
Reshoring was a corrective mechanism	46	40.7	40.7	100

Table 20 shows the types of reshoring decisions. According to Wiesmann et al (2017), the reshoring decisions can either be a voluntary option or a corrective mechanism. This is described in more detail through NVivo analysis in *Section 5.3*. However, the NVivo data shows this step is a step to identify the company capabilities through categorising what type of decisions the company is applying. The data analysis of the UK firms shows that 59.3% stated the reshoring strategies were a voluntary option, while 40.7% of the firms' stated the reshoring was a corrective mechanism.

- **Risks of reshoring**

Table 20: Risks affecting the decision-making

Did any of the barriers affect the decision making?				
Brexit	2	1.8	1.8	72.5
Finding a factory	4	3.2	3.2	75.7
Changing to sustainable options	3	2.7	2.7	78.4
Fluctuating exchange rates	1	0.9	0.9	79.3
Changing to automation	1	0.9	0.9	80.2
Reshoring high costs	5	4.5	4.5	84.7
Economic challenges	1	0.9	0.9	85.6
Changing to UK suppliers	3	2.7	2.7	88.3
recruiting skilled labour	3	2.7	2.7	91
Issues arising in the process of reshoring	1	0.9	0.9	91.9
Lack of knowledge about reshoring	3	2.7	2.7	94.6
Psychological challenges	1	0.9	0.9	95.5
re-creating value in the home country	2	1.8	1.8	97.3
Reputation damages	1	0.9	0.9	98.2
Resource availability in the host country	2	1.8	1.8	100

Table 21 shows the risks affecting the decision-making of reshoring. The most frequent answers are risks related to reshoring high costs, finding a factory, changing to sustainable options, changing to UK suppliers, recruiting skilled labour, and lack of knowledge about reshoring.

The Brexit, re-creating value in the home country, and resource availability in the host country were moderately stated as risks in the responses. However, it was unexpected to find Brexit as a barrier affecting reshoring. Perhaps this is related to the high taxes and fees involved in doing business with foreign countries.

Fluctuating exchange rates, changing to automation, economic challenges, issues arising in the process of reshoring, psychological challenges, and reputational damages were mentioned by the respondent as well.

Table 21: Firms' solutions for overcoming the reshoring risks

What did the company do to overcome the barriers?				
	Frequency	Percent	Valid Percent	Cumulative Percent
No Answer	5	4.5	4.5	16.5
Accomodating for the home country legislations	1	0.9	0.9	21
Adapting to future laws and taxes related to Brexit	1	0.9	0.9	21.9
Countinuously adjusting the strategy	12	10.8	10.8	22.8
Allowing sufficient funds for reshoring	24	21.6	21.6	33.6
Allowing enough time for reshoring	20	18	18	55.2
Support from MAS	2	1.8	1.8	57
Bank loan and government support through reshoring initiative	6	5.4	5.4	62.3
Communication and co-ordination between the host and home country	6	5.4	5.4	67.5
Finding supply chain in UK first to support the transition back home	1	0.9	0.9	68.5
Flexibility in decisions to adapt to the barriers and risks	2	1.8	1.8	70.3
Recruiting skilled employees to help with the extra work involved with reshoring	8	7.2	7.2	77.5
Implementing new technologies	1	0.9	0.9	78.4
Improving marketing and sustainability	1	0.9	0.9	79.3
Made host country employees redundant to reduce costs	1	0.9	0.9	80.2
Networking	3	2.7	2.7	83
Recruitment agencies to help with employee recruitments	1	0.9	0.9	83.8
Securing the supply chain in the UK before fully relocating	2	1.8	1.8	85.6
Securing partnership and investments in the home country before reshoring	2	1.8	1.8	87.4
Seeking consultancy agencies to help with reshoring	1	0.9	0.9	88.3
Adapting our decisions to sustainable options	3	2.7	2.7	91
Slowing production in the host country while starting production in the UK	4	3.6	3.6	94.6
The company started in house production before fully relocating in the UK	3	2.7	2.7	97.3
Staff training before and throughout reshoring process	3	2.7	2.7	100

To gain better knowledge about how firms deal with the risks in the UK, the respondent had to specify in their own words what their solutions were to overcome the risks and barriers, as shown in *Table 22*. As mentioned previously, the barriers are not well studied in the literature and none of the previous studies mentioned what kind of solutions can be done to overcome those issues (Wiesmann et al., 2017). Although, the responses are mainly related to the individual experience of the firm, the table still gives an insight on what kind of solutions the company might be seeking in their reshoring experience.

Multiple firms have mentioned solutions such as allowing sufficient funds for reshoring (21.6%), allowing enough time for reshoring (18%), and continuously adjusting the strategy (10.8).

Other frequent solutions are recruiting skilled employees to help with the extra work involved with reshoring (7.2%), bank loan and government support through reshoring initiative (5.4%), communication and co-ordination between the host and home country (5.4%), slowing production in the host country while starting production in the UK (3.6%).

Few firms have stated networking (2.7%), adapting our decisions to sustainable options (2.7%), the company started in house production before fully relocating in the UK (2.7%), staff training before and throughout reshoring (2.7%), support from MAS (1.8%), flexibility in decisions to adapt to the barriers and risks (1.8%), securing the supply chain in the home country before fully relocating (1.8%), securing partnership and investment in the home country before fully relocating (1.8%).

Other solutions mentioned are accommodating to the home country legislations (0.9%), adapting for future laws and regulations related to Brexit (0.9%), seeking recruitment agencies to support with the recruitments (0.9%), and seeking consultancy agencies to support with the reshoring decisions (0.9%).

- **Data analysis:**

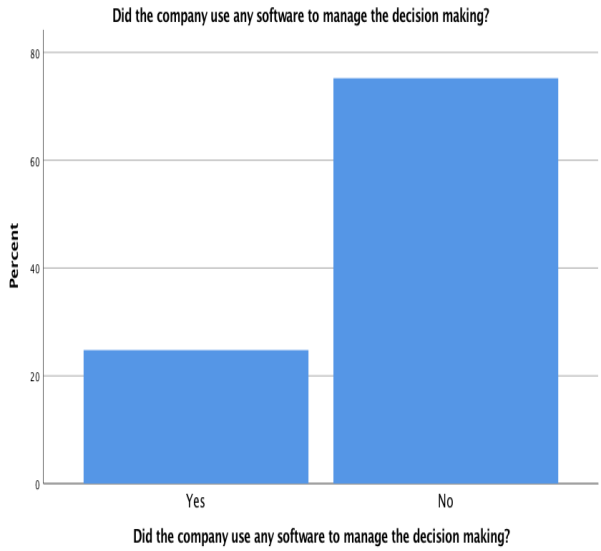


Figure 16: Software usage

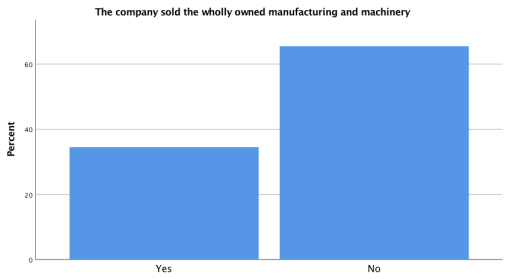
Table 22: Software used while reshoring

What software did the company use and what is it for?			
	Frequency	Percent	Cumulative Percent
Customised software for data storage	9	8	87.6
JAKA	1	0.9	88.5
Microsoft teams	2	1.8	90.3
Payroll software	2	1.8	92
SAGE	4	3.5	95.6
Teams software	1	0.9	96.5
Training software	4	3.5	100

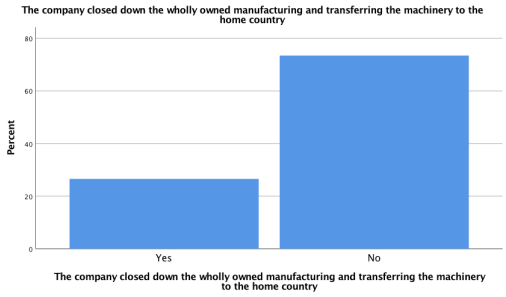
Figure 17 shows that only 25% of responded have stated using software to assist with reshoring decisions and data analysis. The *Table 23* shows that 8% of the respondents claimed using customised software for data storage, 3.5% stated using SAGE, and 3.5% stated having training software, while 1.8% stated using Microsoft Teams and payroll software, and 1% stated they have used JAKA.

5.3.5 Implementation of reshoring

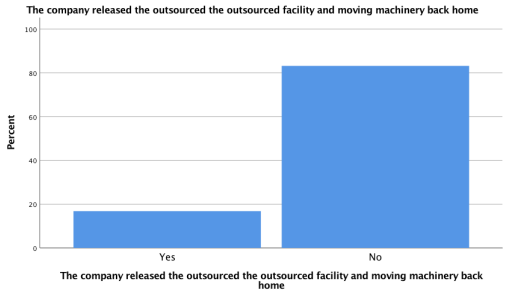
- **Exit modes**



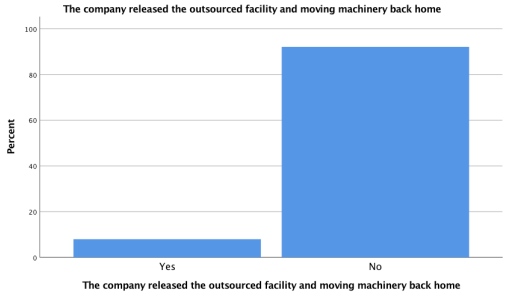
The company sold the wholly owned manufacturing and machinery				
	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	39	34.5	34.5	34.5
No	74	65.5	65.5	100



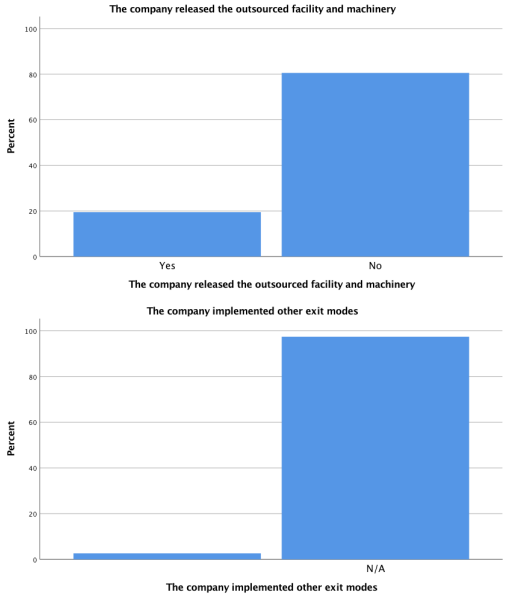
The company closed down the wholly owned manufacturing and transferring the machinery to the home country				
	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	30	26.5	26.5	26.5
No	83	73.5	73.5	100



The company released the outsourced the outsourced facility and moving machinery back home				
	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	19	16.8	16.8	16.8
No	94	83.2	83.2	100



The company released the outsourced facility and machinery				
	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	29	25.7	25.7	25.7
No	84	74.3	74.3	100



The company released the outsourced facility and moving machinery back home				
	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	9	8	8	8
No	104	92	92	100

The company released the outsourced facility and machinery				
	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	22	19.5	19.5	19.5
No	91	80.5	80.5	100

Figure 17: Exit Modes for Reshoring

Figure 18 shows the exit modes of reshoring represented through a combination of graphs and their percentages. The survey respondents had to choose between six different exit modes available in the literature. Also, the respondents had the opportunity to add any exit mode(s) not within the list. Though, no other exit modes were mentioned in this thesis survey. The data of the survey show that 34.5% of the respondents mentioned their company sold the wholly owned manufacturing and machinery, 26.5% the company closed down the wholly owned manufacturing and transferred the machinery to the home country, 16.8% stated the company released the wholly owned facility and moved the machinery back home, 25.7% mentioned the company released the outsourced facility and machinery, while 8% stated the company released the outsourced facility and moved machinery back home, and 19.5% claimed the company released the outsourced facility and machinery.

- **Entry modes:**

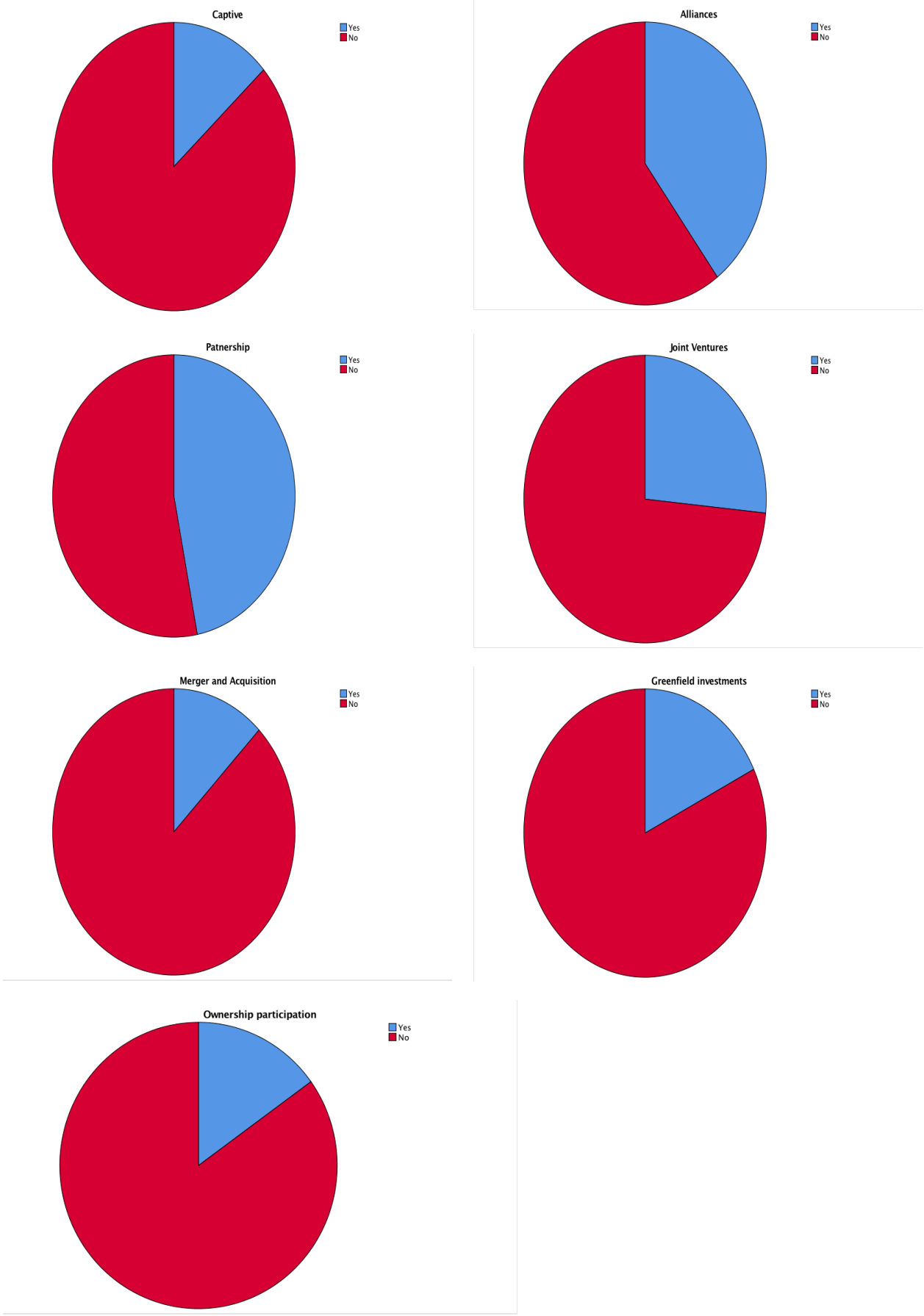
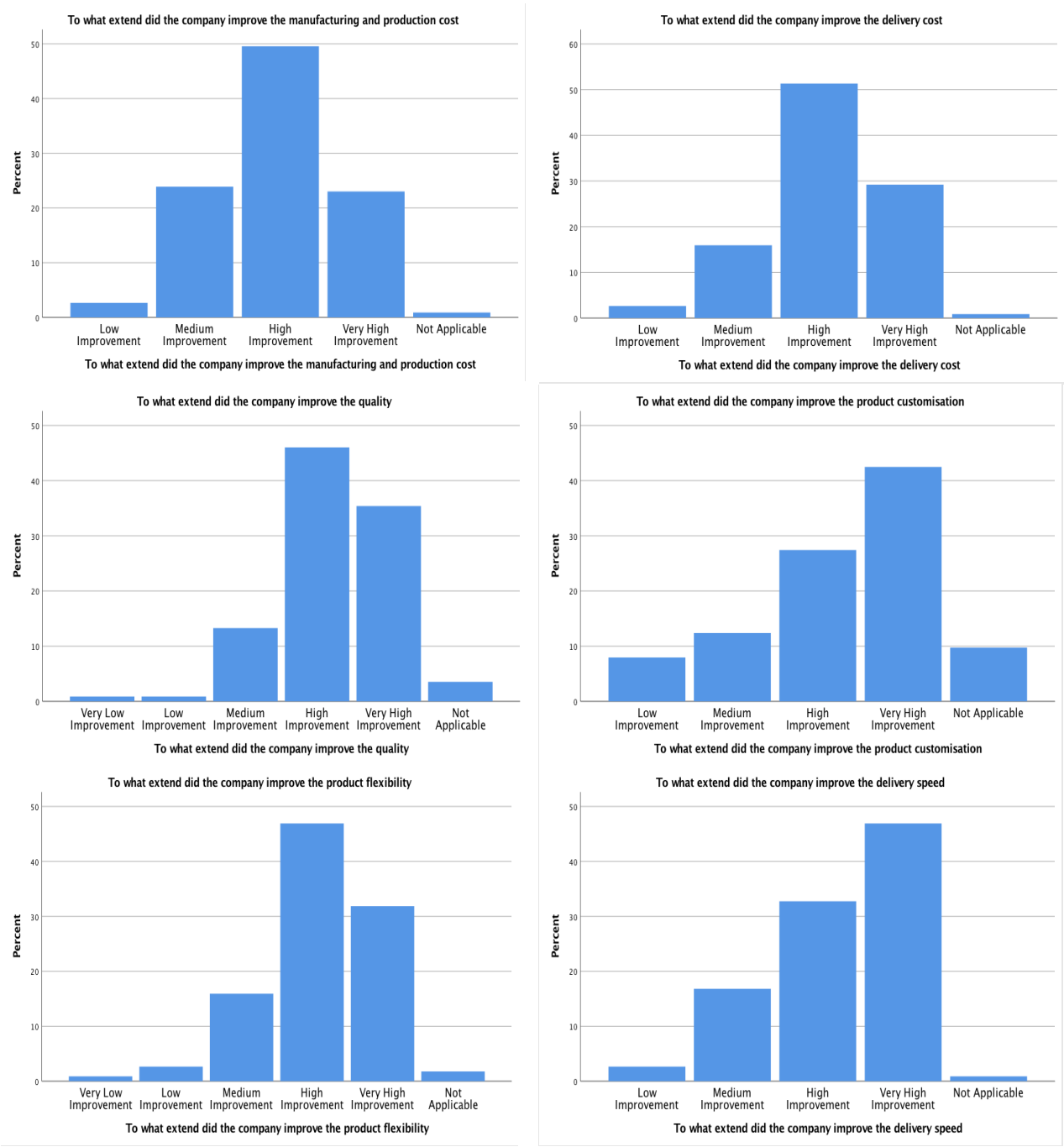
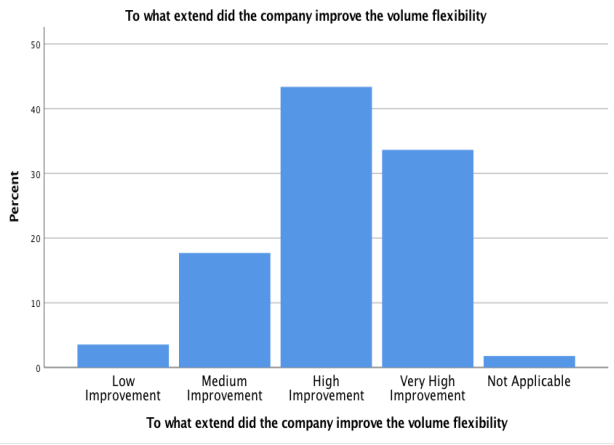


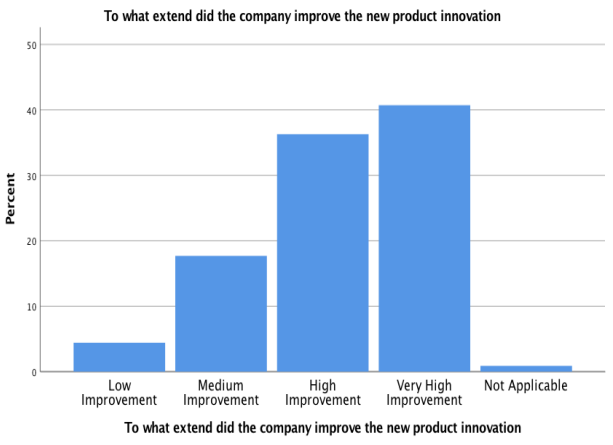
Figure 18: Entry Modes of Reshoring

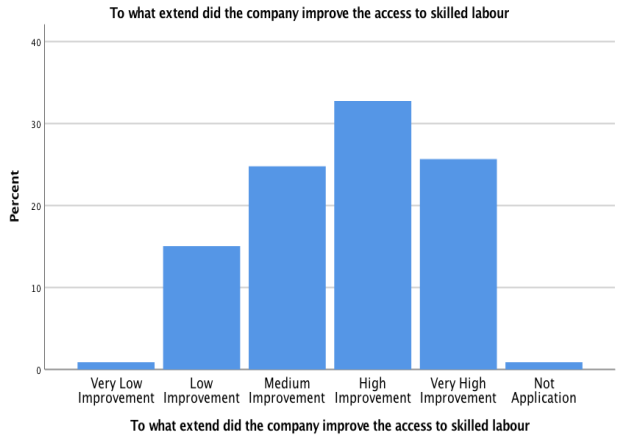
Figure 19 shows different chart pies that illustrate the entry modes of reshoring. The respondent had multiple choices of different entry modes that were identified from the literature. The survey data shows that the frequently used entry modes are partnership (46.9%) and alliances (39.8%). This is followed by the joint ventures (26.5%), Greenfield investments (17.7%), ownership participation (15%), captive (13.3), and merger & acquisition (12.4%).

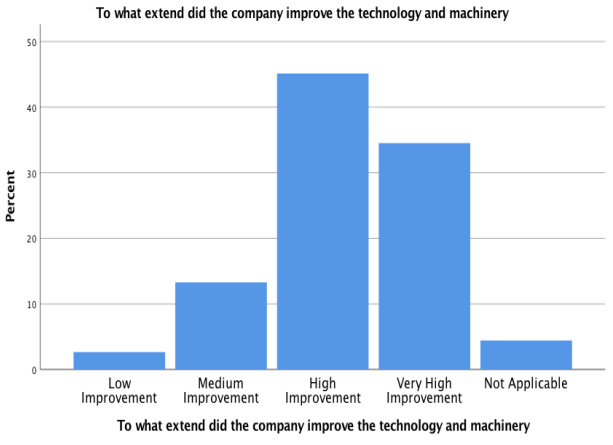
Outcomes of reshoring:

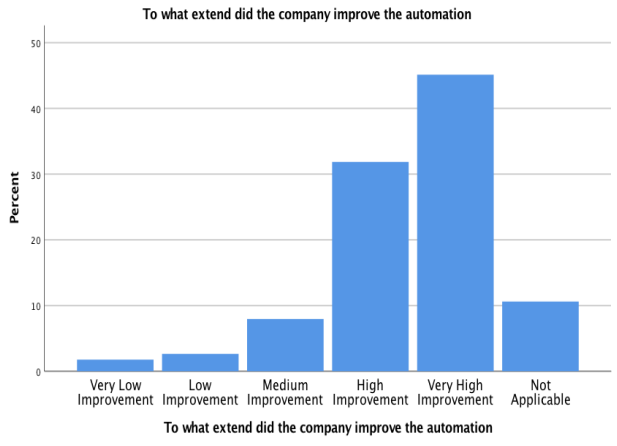


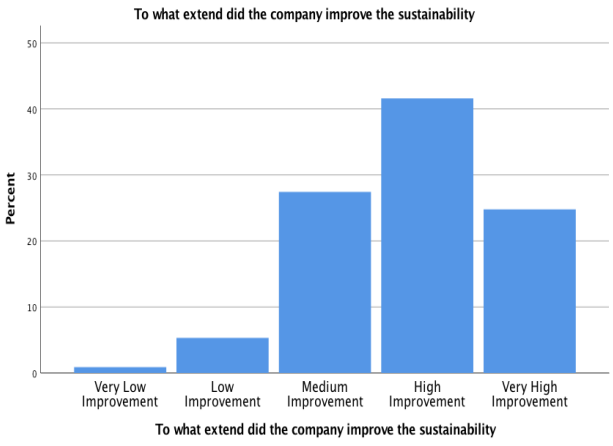

To what extend did the company improve the volume flexibility
Percent
50
40
30
20
10
0
Low Improvement
Medium Improvement
High Improvement
Very High Improvement
Not Applicable
To what extend did the company improve the volume flexibility

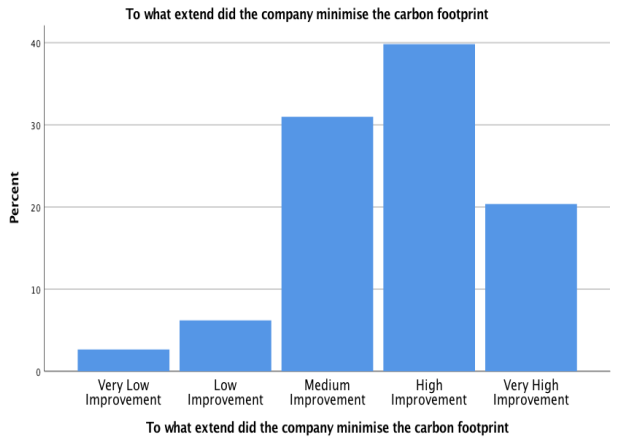

To what extend did the company improve the new product innovation
Percent
50
40
30
20
10
0
Low Improvement
Medium Improvement
High Improvement
Very High Improvement
Not Applicable
To what extend did the company improve the new product innovation

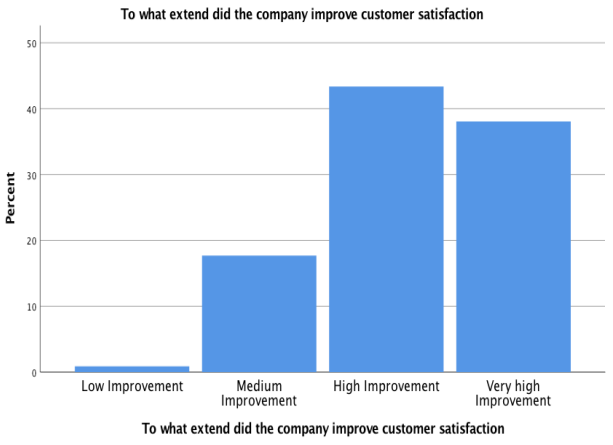

To what extend did the company improve the access to skilled labour
Percent
40
30
20
10
0
Very Low Improvement
Low Improvement
Medium Improvement
High Improvement
Very High Improvement
Not Application
To what extend did the company improve the access to skilled labour


To what extend did the company improve the technology and machinery
Percent
50
40
30
20
10
0
Low Improvement
Medium Improvement
High Improvement
Very High Improvement
Not Applicable
To what extend did the company improve the technology and machinery


To what extend did the company improve the automation
Percent
50
40
30
20
10
0
Very Low Improvement
Low Improvement
Medium Improvement
High Improvement
Very High Improvement
Not Applicable
To what extend did the company improve the automation


To what extend did the company improve the sustainability
Percent
50
40
30
20
10
0
Very Low Improvement
Low Improvement
Medium Improvement
High Improvement
Very High Improvement
To what extend did the company improve the sustainability


To what extend did the company minimise the carbon footprint
Percent
40
30
20
10
0
Very Low Improvement
Low Improvement
Medium Improvement
High Improvement
Very High Improvement
To what extend did the company minimise the carbon footprint


To what extend did the company improve customer satisfaction
Percent
50
40
30
20
10
0
Low Improvement
Medium Improvement
High Improvement
Very high Improvement
To what extend did the company improve customer satisfaction

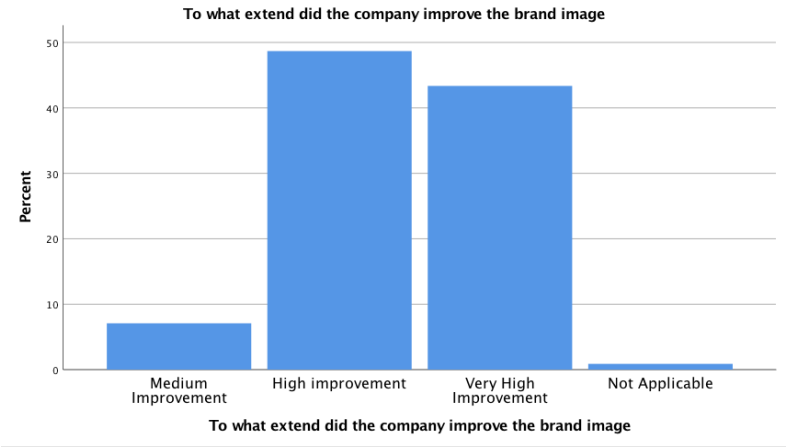


Figure 19: Improved Reshoring Drivers

Figure 20 shows multiple charts that illustrate the scale of the firm satisfaction in improving the drivers of reshoring.

For the manufacturing and production cost, almost 50% of the respondents have stated improving the manufacturing and production cost when reshoring, 23% mentioned they have highly improved the manufacturing and production cost, 24% stated the improvement was moderate, while only 2.7% mentioned no improvement from reshoring over the manufacturing and production.

For the delivery cost, a percentage of 51.3% of the respondent have stated improving the delivery cost when relocating back to the UK, 29.2% mentioned they have highly improved the delivery cost, while 15.9% stated a moderate improvement for delivery costs, and only 2.7% mentioned they had a low or no improvement over delivery cost when relocation.

For the product customisation, a large percentage 48% of the respondents claimed very high improvements when reshoring back to the UK, 31% mentioned high improvement for this factor, while 14% claimed a medium improvement, and only 8% stated the company had a low improvement for product customisation.

For the product flexibility, the survey respondents show 53% have improved this factor since moving back to the UK, 36% have highly improved this factor, while 15.9% of the respondents

mentioned medium improvement related to the product flexibility, and only 0.9% stated low or no improvement.

For the delivery speed, 46.9% of the respondents mentioned the firm has highly improved this factor when relocated back home, similarly 32.7% have stated high improvement, 16.8% claimed medium improvement, and only 2.7% responded this factor had low or no improvement.

For the volume flexibility, 43.4% of the survey respondents claimed this factor was improved when relocating back to the UK, likewise 33.6% stated high improvement after reshoring, and 17.7% have mentioned medium improvement, while only 3.5% claimed low or no improvement.

For the new product innovation, 40.7% stated this factor was highly improved after relocating back to the UK, similarly 36.3% claimed high improvement, 17.7% stated moderate improvement, and only 4.4% claimed no or low improvement.

For the access to skilled labour, the statistics show 32% of the respondents claimed having improved this factor, 25% of the respondent stated very high improvement when reshoring, while 24.8% stated a medium improvement. And surprisingly 15% and 0.9% of the companies stated low and very low improvement, which is the highest compared to other drivers.

For the technology and machinery, 45.1% of the respondents stated that after reshoring their company have improved this factor, 34.5% have claimed very high improvement, while 13.3% stated medium improvement, and only 2.7% claimed low improvement for technology and machinery.

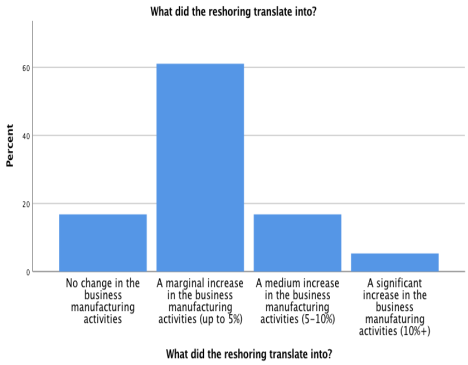
For the automation, 45.1% of the respondent stated having highly improved this factor when reshoring back to the home country, 31.9% have claimed high improvement, while 8% mentioned medium improvement, and only 1.8% declared low and very low improvement.

For sustainability, 41.6% of the respondent stated having improved this factor when bringing the manufacturing back to the UK, 24.8% claimed high improvement, and 27.4% mentioned moderate improvement, while 5.3% and 0.9% declared low and very low improvement.

For minimising carbon footprint, the respondents show 39.8% have improved this factor when reshoring back to the UK, 20.4% have stated high improvement related to carbon footprint, and 31% claimed medium improvement, while 6.2% and 2.7% declared low and very low improvements.

For the customer satisfaction, the respondents show 43.4% and 38.1% have either improved or highly improved this factor when relocating back home, 17.7% responded this factor was moderately improved, while 0.9% declared low improvement.

For the brand image, the survey data show 49% of the respondent mentioned highly improving this factor when reshoring back to the UK, 48.7% declared improving this factor, while 7.1% stated medium improvement, and none of the respondents declared low or very low improvement for this factor.



What did the reshoring translate into?				
	Frequency	Percent	Valid Percent	Cumulative Percent
No change in the business manufacturing activities	19	16.8	16.8	16.8
A marginal increase in the business manufacturing activities (up to 5%)	69	61.1	61.1	77.9
A medium increase in the business manufacturing activities (5-10%)	19	16.8	16.8	94.7
A significant increase in the business manufaturing activities (10%+)	6	5.3	5.3	100

Figure 20: Outcomes of Reshoring

Figure 21 shows the outcome of reshoring in term of activities. The survey data indicates that 69% of the respondents mentioned reshoring back to the UK resulted in an increase in the business manufacturing activities of (up to 5%), while 19% claimed a medium increase in the business manufacturing activities (5-10%), 6% stated the reshoring resulted in a significant increase in the manufacturing activities (10%+), and 19% claimed no change in the business activities.

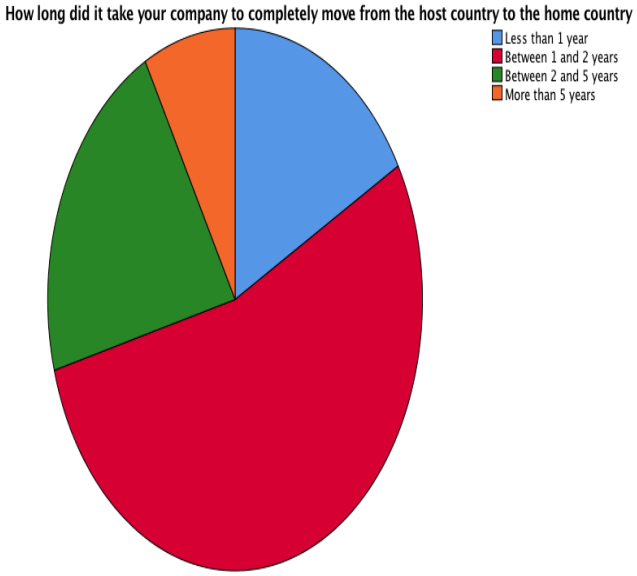


Figure 21: Timeframe for reshoring

Table 23: Number of years for reshoring

How long did it take your company to completely move from the host country to the home country?			
	Frequency	Percent	Cumulative Percent
Less than 1 year	19	16.8	16.8
Between 1 and 2 years	61	54	70.8
Between 2 and 5 years	24	21.2	92
More than 5 years	9	8	100

Figure 22 shows an illustration of what the candidates responded to how long the relocation strategies took to be completed. The *Table 24* shows that 54% of the companies claimed the reshoring time was between 1 and 2 years, 16.8% claimed the relocation took them less than 1 year, while 21.2% said it took them between 2 and 5 years, and 8% claimed the relocation back home was implemented over more than 5 years.

Chapter 6

Discussion

6.1 Introduction:

To contribute to the academic debate on the reshoring process studying the drivers, barriers, the decision-making and implementation, this section analytically discusses the outcomes of this research data by comparing them to the extant literature reviewed in *Chapter 2*. The current chapter demonstrates the theoretical and practical contribution of this research. The theoretical understanding fills a gap in the literature by explaining the reshoring process as a dynamic process from the emergent theory. Additionally, the practical knowledge contribution is discussed by refining the theory-based conceptual framework that has been empirically verified to provide answers to the research questions and practical guidelines for decision makers.

6.2 Outcomes

The first insight derived from the findings is that the reshoring drivers and barriers emerge from the environmental uncertainties. This result confirms Tate et al. (2014) and Ellram et al. (2013) hypothesis that the reshoring drivers and barriers factors might be dynamic. The data collected from the interviews with the managers and CEOs showed that the firms reshoring have decided to relocate their manufacturing operations due to a change in the home country and/or host country environmental characteristics, which can be explained as the emergence of drivers and barriers factors that did not exist when the company adopted the offshoring strategy. This finding is consistent with conclusions of Martínez-Mora & Merino (2014), suggesting reshoring emerges from unexpected events and actors, which are related to economic, social, political, and environmental aspects. In contrast to Martínez-Mora & Merino (2014) research, which is indicative of prevailing knowledge available in the literature identifies the drivers and barriers from a rational perspective that assumes a stable and predictable business environment (see,

Ancarani et al., 2015; Barbieri et al., 2018; Ellram et al., 2013; and Stentoft et al., 2016). This rationalist perspective in contradiction with the findings of this research. Explaining the drivers and barriers from a rational perspective assumes that the environment is certain and predictable, and everything is intended and planned (Argyris, 1977; Brown and Eisenhardt, 1998). Nevertheless, concerns about this assumption are that the environmental uncertainties are not taken into consideration, and since reshoring emerge from environmental unpredictability (Martínez-Mora & Merino, 2014), the rational perspective has serious limitation for offering an approach that allows the decision-makers to adapt the drivers and barriers factors to environmental changes. Rather, this study demonstrates that the emergence of the reshoring drivers and barriers factors require a flexible approach that enables the decision makers with the abilities to reconsider, add, and eliminate factors according to the environment changes (Mintzberg et al., 1976).

The above discussion leads to the second insight, and that is the decision-making and implementation of reshoring based on the emergent drivers and barriers is itself a dynamic process. The analysis demonstrates that the reshoring decision-making and implementation phase involves complex decisions, as suggested by Gray et al. (2017). These complex decisions necessitate the decision-making and implementation to be flexible and characterized by a looping process, not sequential (Boffelli et al., 2020). Outcomes from the research data showed the reshoring decision-makers require multiple continuous adjustments throughout the application of the strategy. This is an appropriate approach for complex decisions since it allows adjustments in different steps of the reshoring process depending on the environmental uncertainties, risks, as well as opportunities (Mintzberg et al., 1976). This evidence that the reshoring decision-making and implementation phase dynamics should be considered from an emergent strategy perspective (Mintzberg et al., 1976). This finding is new in contrast to prevailing knowledge in the literature that explains the decision-making and implementation based on a bounded rational understanding that assumes stability, certainty and predictability (see, Boffelli et al., 2020; Theyel et al., 2018;

Kaufmann et al., 2014). The rational perspective states that decision-making and implementation of reshoring are phases that need to be completed sequentially through a stable approach (Boffelli et al., 2020; Theyel et al., 2018; Kaufmann et al., 2014). However, this present research results supports Gray et al. (2017) findings that criticised the rational approach by evidencing that reshoring decisions based on pure rationality are time and energy consuming because the approach involves a large database that needs to be analysed throughout a long period of time before being applied, which is difficult and inefficient in location-decisions. The emergent perspective evidenced in the present research is in line with location decisions studies such as Gylling et al., (2015), Huq et al., (2016), and Tate and Bals, (2017) claiming the reshoring decision-making and implementation phases are filled with uncertainties and risks (Tate et al., 2014). Thus, this research highlights the importance of following a flexible approach that enables decision-makers with abilities to adjust their strategy to the environment uncertainties, risks, and opportunities (Mintzberg et al., 1976).

The conceptual framework tested in the study shows the process of reshoring needs to be completed through flexibly and constitutes multiple phases continuously overlapping. This is in contrast with studies such as Benstead et al. (2017), Boffelli et al, (2018), and Foerstl et al., (2016) that have explained their conceptual frameworks based on stability and rationality. However, the stable and rational conceptual framework involves an analytically based practice that creates plans and actions that should be formulated before the implementation phase (Porter, 1980), which according to Gray et al., (2017) requires the firm to have a full and long evaluation of costs and risks. This approach is not appropriate for complex location decisions such as reshoring (Gray et al., 2017). Alternatively, this study's conceptual framework shows that the decisions should be based on a flexible evaluation of each of the reshoring phases. In this sense, the firm does not need to have a complete strategy before starting the implementation (Mintzberg & Waters, 1985). The strategy of reshoring emerges simultaneously with the application of the previous phase and/or step (Mintzberg & Waters, 1985). In addition to this, since the decisions

are emerging simultaneously, the strategy adapts to environment unpredictability and uncertainties (Mintzberg & Waters, 1985). In line with this view, if any modifications are required due to a change in circumstances, an emergent strategy enables the decision makers with abilities to adapt and adjust the reshoring strategy accordingly (Mintzberg & Waters, 1985).

6.3 Conceptual Framework

The research findings suggest revising the conceptual framework proposed in Chapter 4. Concerning the phases of the conceptual framework, the analysis of the findings shows a need to make some minor modifications based on the empirical data, which are discussed in this section.

6.3.1 Drivers and Barriers

The first phase of the reshoring process, which involve the two steps of identifying the drivers and the barriers of reshoring, are supported by the findings as crucial elements in the reshoring process. As described in the interviews data, these steps are fundamental for shaping the decision-making and implementation of the strategy. In line with Benstead et al. (2017), Di Mauro et al. (2018), Heikkilä et al. (2018), and Wiesmann et al. (2017), the findings show that recognizing the driving factors in the reshoring process provide the firm with answers to the "why" question. However, the barriers have been neglected in previous studies such as Benstead et al. (2017), Fratocchi et al. (2016), and Stentoft et al. (2016). This research findings align with Engström et al. (2018) and Wiesmann et al. (2017) suggestion that the barriers are as important as the drivers, and while the drivers determine why the firm should reshore (Foerstl et al., 2016), the barriers show the obstacle that may negatively impact the strategy (Wiesmann et al., 2017).

The following discussion on the drivers critically explains the findings of UK companies experience in comparison with the existing literature. A relevant point from our analysis is that the results of this research contribute into confirming the strength of the driving factors already available in the literature. Compared to the literature, the analysis shows that the 26 factors

highlighted in the literature are extant in the UK. Moreover, the findings contribute to previous results by extending the drivers related to the host country, home country, and firm specific, to a larger set of factors, as shown in *Table 12.*

Drivers of Reshoring

The first category, the global environment dynamics drivers, are more prominant in the data analysis. The most prevalent factor under this category is the changes in the global economy. This supports Bailey and De Propris (2014) findings that claim the main driver for reshoring is the economic differences emerging between the home and host country that affects the economy, labour costs, tax rates, and economic regulations. In line with Engström et al., (2018) study, this finding can be explained by the global economic factors affecting the attractiveness of the host country, and favouring the home country. Though, this finding is in contradiction with studies claiming the most important driver under this category is increasing labour costs, e.g., Bailey and De Propris (2014), Ellram et al. (2013), Gray et al. (2013), and Tate et al. (2014). These studies have been based on the US manufacturing reshoring from Asia. Thus, their findings can be explained by the dramatic increase of the labour costs in Asia that shifted by approximately 15.6% between 2000 and 2017, affecting many US firms, and leading to reshoring back to the US (Zhou et al., 2018). On the other hand, the labour costs not being the most important driver in the UK, based on this research analysis, may be explained by the UK manufacturing mainly offshoring to European countries and not Asian countries. This supports Robinson and Hsieh (2016) suggestion that the UK manufacturing has been offshoring to countries in proximity, mainly European countries to gain competitive advantages.

The second category is the host country. Under this category, the most prevalent driver is the low quality. The low quality is commonly recognised as a major driver for reshoring (Engström et al. 2018; Fratocchi et al. 2015; Kinkel, 2012; Kinkel and Maloca, 2009). This finding ties well with Tate et al. (2014) study wherein the authors shows that many manufacturing have faced low quality in their business activities when offshoring to low-cost countries. This finding further

supports Robinson and Hsieh (2016) proposition that the UK consumers are very demanding in terms of product quality, and therefore low quality is a major driver for reshoring back to the country.

The results of this study have revealed two new drivers in this category, which are corruption and termination of the contracts in the host country. It is important to highlight that corruption has been mentioned in offshoring studies, and has been categorised as a potential risk in foreign countries (Tate et al., 2014). Another study conducted by Ellram et al. (2013) confirms Tate et al., (2014) proposition by showing offshoring to countries such as Africa has faced multiple administration issues including corruption. Thus, this finding contributes to explaining that corruption is a potential driver for reshoring to the UK. On the other hand, the termination of the contracts has been claimed by Interviewee 5 as being an important driver for their reshoring decisions. This new finding aligns with Wan et al., (2019) study in location decisions that indicates that renewing contracts under the same terms, conditions, and fees could be very challenging, especially in a highly competitive market.

Under the third category, the home country drivers, that is the UK, the most prevalent drivers are the awareness of the environment impact and changing to sustainable options. These results are in line with Engström et al. (2018) study that shows the environmental and sustainable factors are increasingly driving reshoring decisions. From a UK perspective, the findings confirm Robinson and Hsieh (2016) suggestion that consumers nowadays have more preference for sustainable products.

The home country category reveals one new factor, which is the government support for relocation. This has been frequently mentioned in the data of this study. This finding can be explained by the UK government promoting the "ReshoreUKInitiative" since 2014 to encourage the offshore manufacturers to return back to the local market in the UK (Gov, 2014). The respondants mentioning the government support as a driver have stated the help was through the

“ReshoreInitiative” using the fundings, automation facilities, and/or connecting with local or international suppliers.

The supply chain, which is the fourth category is the main driver for offshoring to other countries (Ellram et al., 2013). Similarly, the finding shows multiple companies stating they have offshored to foreign countries to access resources and improve the firm supply chain. However, this finding shows low responses related to this category. This is in contradiction with previous studies based on other countries such as Sweden (e.g., Engström et al., 2018) and USA (e.g Kinkel and Maloca, 2009; Tate et al., 2014). This can be explained by the UK having a weak national supply chain mainly relying on outsourcing raw materials from cheaper countries (Strange, 2020).

The fifth category, which is firm related, has shown high response rates in this study. This aligns with Benstead et al., (2017) article that indicates automation is a strong driver for reshoring in the UK. These results confirm Engström et al. (2018) proposition that automation improves efficiency, specialization, and customisation. As stated by the interviewees, the technological advancement has made it easier for firms to switch to automation, and improve their manufacturing skills, which facilitates returning to the UK. In line with Wiesmann et al. (2017), this finding can be explained by automation replacing the need for numerous workers and being more efficient in the long-term. Another factor has been perceived as important under this category, and that is the over-estimation of cost savings during the offshoring decision-making. This finding responds to Engström et al. (2018), Kinkel and Malorca (2019) and Kinkel (2014) request to identify if this driver is relevant in countries other than the US and Sweden, by providing a UK perspective. This finding responds to Engström et al. (2018) explanation that firms offshoring decisions have failed to predict the long-term advantages of cost-based savings. In a similar vein, Kinkel (2014) and Kinkel and Malorca (2019) declared the advantages of cost-based offshoring mainly to low-cost countries diminish overtime, which aligns with our interview results. Another factor, “the bandwagon effect” has surprisingly shown low responses.

This is in contradiction with Gray et al. (2013) and Wiesmann et al. (2017) findings. However, as explained in Engström et al. (2018) study, the bandwagon effect has been more present in cases related to the USA. Moreover, the bandwagon effect has been seen more frequently in SMEs (Gray et al., 2017). This can be explained by SMEs not allocating specific teams responsible for location strategy decisions and rather relying on imitating larger firms to avoid a full and costly analysis (Gray et al., 2017). This low response rates may be defended by the fact that most of the sample audience were large firms, which also confirms Gray et al. (2017) findings.

Under the firm-specific category, the following new driving factors emerged from the results: legal matters, improving customer service, improving brand image. For the legal matters, previous studies have proved multiple offshoring cases have faced difficulties linked with agreements and contracts, especially in Asian countries (Rosemary, 2017). The culture and understanding of the contracts in Asian countries is completely different from the Western world; Asia views contracts as a starting point of a relationship only (Rosemary, 2017). Thus, it is very difficult to enforce any rights under the contracts and firms are sometimes faced with long lawsuits that are usually time and money consuming. In the other hand, improving the customer service and improving the brand image factors can be a result of the "made-in-effect" driver. This new finding can be explained from a consumer behaviour perspective (Hamin et al., 2014) that suggests consumers prefer products manufactured in developed countries comparing to emerging countries (Fjellstrom. et al., 2019). This is because production in emerging countries is believed to be associated with low quality and unethical working conditions, e.g., the "Made-in-China" (Fjellstrom. et al., 2019).

Table 24: Summary of Drivers

Drivers of reshoring
The Global Competitive Dynamics
Changes in the global economy Political risks A change is labour costs Instability or change in exchange rates

Increased competition on resources, or change in availability
The host country drivers
Decrease in growth opportunities Low quality Theft of intellectual property High rates of turnover Lack of trust and commitment among staff or suppliers
The home country drivers
Promote community Access to highly skilled employees Changing to automation Higher productivity among staff Awareness of environmental impact Changing to sustainable options Government support for relocation*
The supply chain drivers
Innovation, and R&D, creation of new products High coordination costs Risk of disruption Importance of and issues with delivery performance (speed and dependability)
The firm-specific drivers
Wrong assumptions of benefits and risks in the offshoring decision Lack of knowledge about the host country during the offshoring decision Underestimations of facts in offshoring decisions (bandwagon effect) Over-estimation of cost savings during the offshoring decision making Legal issues* The made-in-effect*

Barriers of Reshoring

Concerning the barriers, the findings show these are difficult to identify. As stated by one of the interviewees, it is only the boardroom that access information about the reshoring risks and barriers, and these are rarely discussed with the rest of the management teams. This confirms Wiesmann et al. (2017) and Engström et al. (2018) findings that the barriers factors are not well developed in the literature because firms are often reluctant to discuss the obstacle they encounter in their location-decisions. Nevertheless, the findings of this research contribute into a better understanding of the barriers factors, and this study is the first to provides a UK perspective over the potential barriers for reshoring to the country. In addition to this, the research results

contributes into extending the barriers related to the home country, by identifying three new factors, as shown in *Table 26*.

The data shows the global competitive dynamics factors represents the largest responses for reshoring to the UK. This includes barriers such as economic differences between the home and host country and large differences in resource availability (Wiesmann et al., 2017). The findings demonstrate the economic differences between the home and host country has direct impact on other factors, e.g., labour costs, exchange rates, and taxes regulations. Likewise, Engström et al. (2018) findings show their case evidence proves this factor highly affects the firm capabilities and is usually considered outside of the company control, which makes it unexpected and therefore hard to deal with. This is because, as identified in our interviews and like Wiesmann et al. (2017) findings, these factors are emerging from a highly dynamic and unpredictable environment.

Under the host country category, the findings show high responses in factors related to loosing supplier knowledge and loosing access to raw materials. Similar to Wiesmann et al. (2017) study, the analysis shows that losing access to supplier knowledge signifies the firm will face difficulty to detach from a build-up capability within the supply chain. Likewise, loosing access to raw materials demonstrates a critical barrier, which either means that there is a large deficiency in costs related to raw materials or these are not available in the home country (Wiesmann et al., 2017). However, identifying these barriers provide the firm with the appropriate knowledge to construct an efficient strategy. For instance, one of manager interviewed, who suggested losing access to raw material was a barrier, stated their solution was to outsource some raw materials from China and insourced other available raw material from the UK; but also, the firm has focused on creating value through customised products and high-quality production.

Regarding the home country category, United Kingdom shows higher response rates comparing to other barriers, for stricter environmental legislation, which according to Wiesmann et al. (2017) makes moving back to the home country very difficult for the firm. However, as

explained in previous studies, stricter environment legislation is a barrier but has also been seen as providing better manufacturing environments where the law is applied fairly, ensuring an ethical competitive market (Engström et al., 2018). Another factor is shortage of raw materials and components, which has shown low responses in this research data. This is in contradiction with studies such as Engström et al. (2018) and Moutray and Swift (2013) who declared their results have high responses for this factor. However, these last studies were based in Sweden, and the authors explained their findings by suggesting the Swedish market have offshored to low-cost countries extensively in the previous years, which resulted in many production sectors diminishing in the local market and relying on offshore production (Engström et al., 2018). In the UK case, the qualitative outcomes have shown multiple interviews stating they sought support from the government, manufacturing advisory services, and Reshore Now, which has large databases and provide help to reshoring firms by connecting them with local and international suppliers. This may explain our findings. The other factors that are lack or shortage of qualified staff and lack of flexibility in the labour market show low response in this study finding, which is in contradiction with other studies (e.g., Ellram et al., 2013; Engström et al. 2018; Kinkel and Maloca, 2009; Wiesmann et al., 2017). This finding was not expected since previous studies stated the UK manufacturing employment is a major problem (EY, 2015). The manufacturing regions such as Northeast and West Midlands – where usually manufacturing is more concentrated – have seen the workforce dramatically diminishing with some skilled workers completely disappearing (EY, 2015). However, a study based in the UK luxury retail illustrates this research finding (Robinson & Hsieh, 2016). Based on their case evidence, the authors stated automation explains this finding since it has played a major role into replacing labour needs (Robinson & Hsieh, 2016). In addition to this, large firms are nowadays providing internal apprenticeship courses customised to build their needed skilled employees (Wiesmann et al., 2017). Moreover, some of the interview data show the hiring process when reshoring has been accomplished through seeking the workers from recruitment agencies and sponsoring skilled

labours from other countries. Under this category, a new barrier has been revealed is related to factories in the home country. Multiple respondents stated either finding a factory or finding land for constructing a factory was a barrier for reshoring. Interviewee 2 specified this was a major issue for their company when reshoring, and the company spend a major part of their time and energy searching for a factory in the UK.

The firm-specific category has more factors comparing to the above categories (Engström et al., 2018). The barrier showing high response rates under this category was the difficulty associated with implementing the reshoring strategy. This result confirms previous studies such as Arlbjørn and Mikkelsen, (2014); Engström et al. (2018) stating the reshoring decision and implementation proved to be a particularly challenging strategy. This can be justified by the strategy being new and under-researched (Gray et al., 2013). Another barrier, the lack of information and communication about reshoring within the business, showed high responses in this research survey. According to Ellram et al. (2013), the psychic distance between the host and home country makes the coordination and communication very difficult. Under this category, legal issues and psychological challenges were identified as a new barrier. The legal issues have been identified as a new finding in both the drivers and barriers of reshoring. Under this category, the legal issues are explained by the complexity of terminating contracts and agreements. The contracts and agreements may either be related to the factory, labour, and/or supplier (Rosemary, 2017). In this vein, Rosemary (2017) discussed in her article how terminating contracts in China might be filled with difficulties. The author stated that when an offshoring firm decide to reshore, proper permits from the Chinese government to close the factory and terminate employees' contracts must be claimed before any action is taken (Rosemary, 2017). The psychological challenges in another hand are related to the difficulty of the decision-making and implementation of reshoring. The reshoring strategy requires the managers to make complex decisions that may sometimes affect an environment and be advantageous for another one (Gray et al., 2017). For example, terminating employee contracts is usually seen as a bad initiative since

the individual life depends on the job (Rosemary, 2017). Thus, the process of reshoring has been proved to involve decisions that can be difficult to make and therefore this may explain this new finding.

Table 25: Summary of Barriers

Barriers of reshoring
The Global Competitive Dynamics Economic differences Instability in exchange rates Major differences in resource availability
The Host Country Barriers Risk of losing access to market Risk of losing access to raw-materials and components that are only available in the host country Risk of losing supplier knowledge
The Home Country Barriers Stricter environmental legislation Lack or shortage of raw-materials and components Lack or shortage of highly skilled staff Lack of flexibility in the labour market Lack of availability of factories and lands*
Firm-specific Barriers Too late or too costly to go back to home country Difficulties in implementing reshoring process Lack of capacity, resources and internal competencies Lack of proper decision support Lack of information and communication about reshoring within the business Legal issues* Psychological challenges*

6.3.2 Decision-Making

The second phase of the conceptual framework, which is the decision-making of reshoring generates evidence about one of the future research avenues cited by Bals et al. (2016), specifically identifying the steps of the reshoring decision-making from a dynamic lens. In line with Boffelli et al. (2018), the results confirm the importance of a "flexible" approach in the decision-making (Mintzberg & Waters, 1985) that can be adapted to the unpredictability and uncertainties that characterize a location decision (Tate et al., 2014). This means that the steps of the reshoring decision-making should be based on overlapping methodology and problem-solving cycles (Boffelli et al., 2018; Mintzberg & Waters, 1985). Concerning the steps of the

decision-making, the research outcomes have shown some further details and information that may contribute to a better understanding of this phase.

A new step that is revealed in the findings is identifying the decision-makers that can be internal decision-makers and external decision-makers. As stated by the interviewees, this step is important because it distinguish who is responsible for the reshoring decisions. Moreover, the outcomes showed that identifying the decision-makers at an early stage within the firm simplifies the communication and coordination about reshoring between the home and the host country. This finding supports Gray et al. (2017), Hartman et al. (2017), Kinkel and Maloca, (2009), and Boffelli et al., (2020) studies that suggest the decision-makers of reshoring play a fundamental role in the efficiency of the strategy. To illustrate this, the research findings indicate that the internal reshoring decision-makers are primarily the boardroom and the senior managers of the firm. This finding aligns with Gray et al., (2017) study that shows the most experienced employee(s) should be involved in the decisions. In addition to this, multiple companies revealed they have employed at least one employee to assist with the reshoring decisions such as: compliance manager, coordination manager, HR manager, legal advisor, financial manager, operation manager, and project manager. It should be noted that the findings revealed an important aspect, and that is the importance of not involving too many employees in the reshoring decisions. This is to ensure the firm maintain their operations and revenues by having employees mainly focusing on their usual daily tasks. Concerning the external support with the decisions, the majority of the firms' have sought organisations such as the government, ReshoreUK platform, banks, and consultancy agencies (e.g., Manufacturing Advisory Services). This finding has similarities with Gray et al. (2017) results that show complex location decisions require the firm to seek external support and help. For instance, frequent answers mentioned they have sought financial support from the UK and Welsh government. This can be explained by the "ReshoreUK initiative" created by the government to financially support the reshoring firms

(GOV, 2014). The goal is to encourage bringing manufacturing back to the UK to boost the local supply chains (GOV, 2014).

The next step, the identification of the company capabilities, has been mentioned in Bals et al., (2016) study to provide future research avenues. In line with Boffelli et al. (2020), this research confirms this step provides the firm with information regarding their readiness to face the reshoring strategy. The findings' outcomes revealed three important sub-steps, and that is identifying the type of reshoring, identifying the type of goods to reshore, and identifying the type of the reshoring decisions, as summarised in *Table 27*. The type of reshoring and the type of goods to reshore provides the decision-makers with clear information about their reshoring operations product types, and production sites. These findings confirm Boffelli et al. (2018) suggestion that identifying the product and production characteristics is fundamental to determine the firm capabilities and readiness for the reshoring process.

Table 26: Firm Capabilities Characteristics

Type of reshoring	**Type of goods to reshore**	**Type of reshoring decisions**
From a fully owned offshored facility to wholly owned facility in the home country From a fully owned offshored facility to other companies in the home country From a not owned outsourced facility to wholly owned facilities in the home country From a not owned outsourced facility to other companies in the home country	Reshoring related to a finished good Reshoring related to a sub-assembly Reshoring related to a component	Reshoring as a corrective mechanism Reshoring as a voluntary option

Under analysing the risks category, the research results show two new elements that should be considered, risks related to the home country and risks related to the host country. The risks are often emerging from the environmental uncertainties (Boffelli et al., 2018). When comparing our results to Bals et al. (2016) conceptual framework, the study did not mention this step. Our results are in line with Boffelli et al. (2018) study that declared this step emerged from their case study. Though, this research show that not only assessing the risks in both the home and host

country is important, but also the firms' risks are emergent with the reshoring process, and therefore should be evaluated continuously. This result is however in contradiction with Ciabuschi et al. (2019) and Wiesmann et al. (2017) studies that explain the reshoring risks based on rationality. Rational understanding assumes the risks should be anticipated in advance and the firm ought to predict the solution in the strategy before the implementation phase (Ciabuschi et al., 2019; Wiesmann et al., 2017). This understanding is based on probabilities. In line with Gray et al. (2017), this research views the rational evaluation of the risks as inefficient in the location decisions. This is because the environmental unpredictability is usually unexpected and hardly predictable, e.g., political, economic, and social (Mintzberg & Waters, 1985).

The next step, the business data analysis**,** has created a debate in the literature. Some authors declared a full and rational analysis is necessary for this step (see, Benstead et al., 2017; Foerstl et al., 2016; Wiesmann et al., 2017), while others stated a flexible but focused analysis is more appropriate (Gray et al., 2017; Boffelli et al., 2018). The research outcomes show this step is blurry and the analysis did not provide much information on how the analysis was completed. However, in line with Gray et al., (2017) and Boffelli et al., (2018) proposition, the interviewees showed the decision-makers did not mention a full analysis of costs but states they have made use of platform such as ReshoreNow, ReshoreUK, Manufacturing Advisory Service, and Cdf-Oplah to help with the data analysis and hidden costs.

The following step involves building the reshoring strategy. In this stage, the data show the decision-makers apply different flexible approached based on the firm capabilities and the environment where reshoring occurs. This is in contradiction with Boffelli et al. (2020) and Kaufmann et al. (2014) studies that showed this stage should be based on a rational assessment. This means the implementation phase cannot be approached until the reshoring strategy is completed (Boffelli et al., 2020; Kaufmann et al., 2014). As mentioned previously, the rational evaluation is time and energy consuming (Gray et al., 2017), and a rational strategy does not consider the environment uncertainties (Benstead et al., 2017). This research data provide

evidence that the decision-makers create a flexible strategy that involves a step-by-step plan based on the knowledge acquired from the previous steps. In line with Bals et al. (2016) and Boffelli et al. (2018), the outcome of the research shows this phase includes integrating a flexible approach for the exit modes from the host country, entry modes to the home country, and the reintegration through value creation. Based on the emergent theory, constructing the reshoring strategy does not require planning the three steps rationally before the implementation phase; but having flexible plan and the decisions emerges based on the current environment (Mintzberg & Waters, 1985).

6.3.3 Preparation phase

As part of the reshoring process, this research has identified a preparation phase. The only study that has previously mentioned this phase is Boffelli et al., (2020) study; however, the authors did not explain what is involved in this stage. This research contributes the first insight of this phase based on the analyses. The data analysis demonstrates this phase involves series of repetitive meetings and briefings between the decision-makers in the host and home country. In these meetings and briefings, the decision-makers discuss the strategy and the progress of reshoring and assign the management team and supervisors with their up-to-date tasks. This step is fundamental since it provide the firm with a vision of their readiness for reshoring through brainstorming and sharing ideas (Nujen et al., 2018). In this phase, the role of the decision-makers is to identify the firm competencies and knowledge, and to develop the dynamic capabilities (Nujen et al., 2018).

6.3.4 Implementation

The reshoring implementation phase is highly unexplored (Bals et al., 2016; Boffelli & Johansson, 2020). The only study that explicitly explained this phase is conducted by Benstead et al. (2017). This research has followed their characteristics; with one difference, which is this research describes this phase from an emergent perspective. In line with Bals et al., (2016) and

Boffelli and Johansson, (2020), the finding of this research show the implementation phase has three fundamental steps: the entry modes, the exit modes, and reintegration to the home country. The first insight derived from the findings show the entry and exit modes are interconnected with the ownership of the firm in the host and home country, which supports Benstead et al. (2017) study. *Figure 25* summarises the exit and entry modes available for the firm as it moved from the host to the home country. These findings add knowledge to Benstead et al. (2017) and Gray et al., (2013) studies by providing a UK perspective. The analysis showed a significant percentage of manufacturing moving from the host country to full-owned facility in the home country. Conversely to Fratocchi et al. (2014) study, this research did not find evidence that fully-owned factories in offshoring slow or affect the reshoring. However, the research data shows the reshoring time length have been in average two years for both firms owning and not owning a factory in the host country. However, this study reveals the transition from the host to the home country is affected by other characteristics such as staff, machinery, and decision-makers (Benstead et al., 2017), as well as the environment uncertainties (Boffelli et al., 2020).

Figure 22: The exit and entry mode trajectory for reshoring

Exit modes	⟷	**Entry modes**
Selling the wolly-owned manufacturing and machinery Closing-down the wholly-owned manufacturing and transferring the machinery to the home country Releasing the outsourced facility and moving the machinery back home. Releasing the outsourced facility and machinery. Releasing the outsourced facility and moving machinery. Releasing the outsourced facility and machinery.		Captive Alliance Joint ventures Partnership Merger and acquisition Greenfiels investments Ownership participation

The second insight derived from the findings indicates that the exit modes and entry modes are not a straightforward phase, as shown in *Figure 23*. For example, one of our interviewees declared the implementation phase involved terminating the contracts abroad by selling and shipping the machinery to the new production site, and then producing in the UK through captive ownership. A different approach reveals the implementation phase is processed by producing in bulk and storing in the UK warehouse to be able to face any unexpected risks that may affect the production. The firm has penetrated the UK market through alliances ownership, and then terminated the contracts in the host country by selling the factory and machinery. These findings shows that this phase involve an overlapping of the exit modes, entry mode, and re-integration to the home country. The implementation phase different approaches can be explained by the location permutations arising as the firm relocate from the host to the home country, which confirms Benstead et al. (2017) assumption. This study explains this finding by the dynamic nature of reshoring outlined by Boffelli et al. (2018).

Moreover, under the dynamic circumstances, this research highlights the importance of maintaining the revenues and operation whilst reshoring. As stated by the interviewees, maintaining the revenues and operations is fundamental because the reshoring strategy requires large funds and can only be completed if the firm keeps being profitable. This finding aligns with Gylling et al. (2015) study. The data show the firms reshoring have maintained the revenues and operation through different approaches depending on their ownerships, dynamic capabilities, and environment uncertainties. These approaches can be summarised into the following: securing contracts in the home country before exiting the host country, producing in bulk to secure the supply of three to six months in case any unpredictability happening in the home country, and increasing the marketing and advertisement about the return home to improve the brand image. Moreover, the data findings showed the reshoring firm were able to maintain efficient operations by separating the duties of the production and operation managers from the employees responsible for the reshoring decisions, which were mainly the boardroom and other decision-

makers in the UK headquarter. This was essential to ensure the employees focus on their tasks without being overwhelmed with extra responsibilities.

6.4 Practical Contribution:

The reshoring process explained through a conceptual framework contributes to a better understanding of this phenomenon. This findings should aid the reshoring managers, decision-makers, and practitioners in their reshoring decisions based of "why" and "how" to reshore. This conceptual framework is the first to provide a complete step-by-step methodology that gathers all the phases of reshoring, which include the drivers and barriers that answer the "why", and the decision-making and implementation that answers the "how". In other words, this conceptual framework provides a practical exemplar for the decision-makers to follow in their reshoring strategies, regardless of the type of industry. Further, the conceptual framework highlights the importance of identifying risks, maintaining the revenues and operations while reshoring. This provides the decision-makers with insights that the reshoring decisions should be applied whilst ensuring the profitability of the firm.

6.5 Theoretical Contribution:

The current knowledge in the literature is based on stability and predictability and the available theoretical explanation supports the bounded rational understanding of reshoring such as the OLI paradigm, Internationalisation Theory, TCE, and RBV (Di Mauro et al., 2018; Joubioux & Vanpoucke, 2016; Engström & Eriksson, 2018). To the best of the researcher knowledge, the literature is lacking a theoretical explanation for the reshoring process from a dynamic and emergent lens (Bals et al., 2016; Boffelli et al., 2018).

As discussed above, the literature recognise that reshoring decisions are complex (Boffelli et al. 2020) and characterised by uncertainty (Gray et al. 2017). For this reason, the research evidence suggests that the reshoring process needs be theoretically founded on emergence and dynamics. The findings of this research contribute theoretically by proposing the emergent theory to explain

the dynamics of the reshoring process. Unlike the rational understanding, the emergent theory shows that complex and emergent phenomenon requires a flexible method that equips the decision-makers with skills and capabilities to be open, able to adapt, and responsive to the environment uncertainties (Mintzberg & Waters, 1985). To support our finding, Mirabeau & Maguire (2014) study suggests location decision in volatile markets necessitates an emergent strategy. Moreover, since the reshoring process includes different phases, and the strategy is implemented over a long period of time (Fratocchi et al., 2016), the emergent theory is suitable for this type of complex strategy by providing a central-goal direction with a continuous cycles of decision adjustment that involves learning what best works for the firm at different stages of the reshoring process (Mintzberg and Waters, 1985). In line with Gray et al. (2017) findings, learning provides an important tool to gain experience that helps with the next stage in the reshoring process. In this context, this research show that based on an emergent strategy, the managers are continuously learning from different situations meaning that their previous experiences are used to make future decisions. The emergent theory demonstrates that reshoring firms should continuously study a situation, decide, move forward, and then repeat the same process until the reshoring is completed (Mintzberg and Waters, 1985).

Chapter 7

Conclusion

7.1 Concluding remarks

This research aimed to clarify the reshoring process through the drivers, barriers, decision-making and implementation from a dynamic perspective. Given the descriptive approach of this research, mixed-methods through surveys and interviews were adopted to generate more evidence. Interesting findings on the reshoring phenomenon were drawn from this study. The biggest finding revealed in this research was that toward a better understanding of the reshoring phenomenon, the decisions should be considered as a dynamic process. An understanding from a dynamic perspective considers the environmental uncertainties and unpredictability, which affect the reshoring decisions (Benstead et al., 2017). In similar veins, the uncertainties of the environment where reshoring occurs causes the reshoring business strategy to be more complex (Benstead et al., 2017). This study demonstrates that due to this business strategy being complex, the flexible approach is more appropriate to complete the reshoring process from the host country to the home country. The controversial rational understanding, which is dominant in the literature, has been proved in recent studies to be inefficient in the reshoring process (Benstead et al., 2017; Gray et al., 2017). The application of the rational analysis in the reshoring strategy prevents the firm from adjusting the decisions to the environmental uncertainties since this approach explains the reshoring strategy should only be applied when the assessment and evaluation of the costs is finalised (Gray et al., 2017). As explained in the study, this requires long analysis and evaluation, which is time and energy consuming (Gray et al., 2017).

Hence, the results of this research initially shed light on the disadvantages of the rational explanation in the reshoring decisions, and generate important contributions to the literature by showing the reshoring process, explained through the emergent theory, is a dynamic phenomenon

that requires an emergent and flexible strategy. Secondly, the study reveals that the emergent strategy starts from the identification of the drivers and barriers that should be based on flexibility, which allows adding, eliminating, and changing the driver and barrier factors considering the environment unpredictability (Mirabeau & Maguire, 2014). The flexible and emergent identification of the drivers and barriers takes into consideration the changing factors as they emerge. In fact, the drivers and barriers of reshoring are very likely to change overtime due to the strategy being built and applied over a long-time (Tate et al., 2014; Ellram et al., 2013), and the openness of the firm to the emerging factors allow building an efficient strategy. This finding responds to Tate et al. (2014) and Ellram et al. (2013) future research avenue that calls into researching the reshoring motivations from a dynamic perspective. Thirdly, the decision-making and implementation of reshoring, interconnected with the emergent drivers and barriers, should be processed through an emergent and flexible strategy that involve overlapping and continuous cycles of decisions able to be adjusted and adapted to the environment uncertainties. This approach provides the decision-makers with abilities to detect any threats, risks, as well as opportunities while making the reshoring decision and simultaneously adapting the strategy accordingly (Mirabeau & Maguire, 2014). This finding responds to Bals et al. (2016), Boffelli et al. (2018), and Wiesmann et al. (2017) future research calls to investigate the "how" of reshoring from a dynamic perspective.

Moreover, to the best of the researcher's knowledge, this study is the first one that explains the reshoring process in a theory-based framework from a dynamic perspective. By linking the reshoring drivers, barriers, decision-making and implementation to the emergent theory, the research addresses the reshoring strategy through all of its phases and steps from an emergent and dynamic perspective. The empirical research demonstrates that the reshoring process should be built upon an overlapping of phases, steps, and sub-steps that allow continuous adjustment of the reshoring strategy to the environment unpredictability (Mirabeau & Maguire, 2014). In the same

vein, the emergent strategy enables the decision-makers to respond to any changes with a sense of goal-centric flexibility and quick responsiveness (Mintzberg and Waters, 1985).

In addition to this, testing the conceptual framework based on mixed methods provided new evidence in the phases and steps of reshoring. In this regards, the research contributes to a larger set of driver and barrier of reshoring factors from a UK perspective. Novel reshoring drivers are the government support for reshoring, legal issues, and the made-in-effect. The barriers new findings are the lack of availability of factories and lands for manufacturing, legal issues, and psychological challenges. The novel findings revealed in this research reflect the immature state of the reshoring process literature (Bals et al., 2016; Boffelli et al., 2020; Fratocchi et al., 2014; Joubioux and Vanpoucke, 2016; Srai and Ané, 2016; Wiesmann et al., 2017), and provide an idea about the reshoring process from a UK perspective based on a large-scale study.

Concerning the decision-making and implementation of reshoring, the study contributes to a better understanding of these phases by explaining and providing clarifications of the several steps and sub-steps involved. Moreover, the research revealed a new step in the decision-making phase that need to be considered in the strategy, which is the identification of the decision-makers. This step has been proved in our data to be fundamental since it facilitates task allocation and communication of reshoring requirements. Also, it enables the firm to recognize its capabilities in terms of knowledge and experience. This is a crucial element since the firm needs to improve these capabilities can be identified in advance, and if necessary improved though learning, training, and recruitment. This is to ensure the reshoring strategies are built by knowledgable and skilled employees.

7.2 Managerial implications

Regarding the decision-makers and policymakers, this research provides guidelines for the reshoring strategy that involve identifying the drivers and barriers factors, as well as the decision-making and implementation process. These guidelines are described in the conceptual framework

by analysing the phases and steps of reshoring, and provide an in-depth explanation of what is involved in each step. This research is useful for managers to have a clear insight of the reshoring process phases through the drivers, barriers, decision-making and implementation as it provides the several possibilities involved in each of the phases and steps. The decision-makers may benefit from a clear view of what is involved in these phases and steps based on an empirical research.

The study is also useful for the practitioners as it highlights how the decision-makers should approach the reshoring strategy. As mentioned earlier, this research advice the decision-makers to apply a flexible approach, that involves adopting overlapping decisions between the different phases and steps of reshoring. The decision-makers emergent and flexible decisions involve continuous adjustments of the decisions required for the reshoring strategy (Mirabeau & Maguire, 2014). This flexible approach enables the decision-makers to make reshoring decisions able to be changed and adapted to any environmental unpredictability (Mirabeau & Maguire, 2014). It should be noted that adapting the flexible approach is not always concerned about risks and challenges. The flexible approach enables the decisions makers to distinguish apportunities as well, and when these latter arise, the firm can adjust the decisions accordingly (Mirabeau & Maguire, 2014). The study also highlights the importance of learning and experience within the firm. In this context, the decision-makers should embrace learnings and trainings in order to increase knowledge and shortage of skills.

Finally, this study advice the management team of the importance of maintaining the revenues and operations in the reshoring decisions. Reshoring decisions requires large funds and can only be completed if the firm ensures its profitability (Benstead et al., 2017). This study show that based on the firm ownerships, dynamic capabilities, and environment uncertainties, the decision-makers may maintain the revenues and operations by either securing contracts in the home country before exiting the host country, producing in bulk to secure the supply of three to six months in case any unpredictability occur in the home country, and increasing the marketing and

advertisement about the return home to improve the brand image. Furthermore, the decision-makers should be aware of separating the duties of the production and operation managers from the reshoring decisions-makers. This was essential to ensure most of the employees focus on their tasks without being overwhelmed with the extra responsibilities involved by reshoring decisions.

7.3 Limitations and Future Research Avenues

Besides the findings generated in this study, multiple limitations should be acknowledged. First, this research has focused on a UK market only. The conclusions generated from the research may not be generalized to different countries. Second, the study has been largely descriptive in nature conducted through mixed-methods. This prevents for more conclusions based on cause and effects, and variable relationships. This prompts for future research to expand the analysis by shedding light in these aspects. Another possible limitation is the conceptual framework work may imply some individual judgment. However, the researcher put effortless time cross-validating the results. Though, future research may refine our conceptual framework through investigating each element separately based on in-depth case studies or large-scale survey. The industry of research may for instance be more specific. In addition to this, the topic may be investigated through the international business research key elements such as home/host country and firm size. The new findings of this study – drivers and barriers factors – also deserve more attention by exploring if they exist in other similar markets. Another important research scope is further investigation to the decision-making and implementation sub-steps by including specifities such as the product type and governance mode characteristics. Finally, another interesting research avenue is the influence of reshoring on firm profitability and performance.

Appendix:

Section 1: General information

1. Please state the name of your company (optional):
……..
2. What is the ownership structure of the company?

100% UK ownership	
UK foreign joint venture	
Foreign ownership	

3. What is the structure of the company?

Sole Trader	
Business partnership	
Limited Partnership	
Limited Liability	
Limited Company	
Unincorporated association	

4. What is the industry of the company?

Electronics		Clothing & footwear		Health & beauty care	
Chemicals		Apparels		Pharmaceuticals	
Automotive		Textiles		Food & beverages	
Furniture & home furnishing		Aerospace		Biomedical equipment	

If you have ticked other, please specify the industry _____

5. How many people does the company employ?

1-10	
11-50	
51-100	
100-500	
500+	

6. What is the management level of your current position?

Leader/Senior Management	
Middle Management	
Junior Management	
Other decision maker	

7. How many years have you worked in the company?

Less than 1 year	
Between 1 and 3 years	
More than 3 years	

8. Did your company offshore the manufacturing production in previous years?

Yes	
No	

If yes, please can you continue to question 9

If no, please end the questionnaire and thank you.

9. What country did your company previously offshore to?
……..

10. What are the entry modes to the foreign country?

Captive	
Alliances	
Partnership	
Joint Ventures	
Merger	
Greenfield Investments	
Ownership participation	
Complete acquisition	

11. What are the motivations for offshoring the business operations?

To reduce costs	
To access a new market	
To be closer to customers	
To access knowledge	
To access R&D	
Other	

12. Overall how was the offshoring experience for your firm?

Highly satisfied neutral not satisfied

13. Did your company reshore or implement any other relocation decisions

Reshore	
Other relocation decisions	

If the company have reshored, please continue to question 14

If your company chose other location decisions, please end the questionnaire and thank you

14. Can you choose one option of the following?

The manufacturing reshoring was a voluntary option for the company	
The manufacturing reshoring was a corrective mechanism for the company	

15. What are the type of manufacturing activities that the company reshored back to the UK

Manufacturing operations related to a finished good	
Manufacturing operations related to a sub-assembly	
Manufacturing operations related to a component	
All of the above	

16. How did the company reshore the business operation?

From a fully owned offshored facility to wholly owned facility in the home country	
From a fully owned offshored facility to other companies in the home country	
From a not owned outsourced facility to wholly owned facilities in the home country	
From a not owned outsourced facility to other companies in the home country	

Section 2: Drivers of reshoring

17. What are the drivers for moving the business operations back home?

Global competitive dynamics drivers	
Changes in the global economy	
Political risks	
A change in labour costs	
Instability or change in exchange rates	
Increased competition on resources, or change in availability	
Host country drivers	
Decrease in growth opportunities	
Low quality	
Theft of intellectual property	
High rates of turnover	
Lack of trust and commitment among staff or suppliers	
Home country drivers	
Political reasons	
Promote community	
Access to highly skilled employees	
Changing to automation	
Higher productivity among staff	
Awareness of environmental impact	
Changing to sustainable options	
Supply chain Drivers	
Innovation, and R&D, creation of new products	
High coordination costs	
Risk of disruption	
Importance of and issues with delivery performance (speed and dependability)	
Firm-specific Drivers	
Wrong assumptions of benefits and risks in the offshoring decision	
Lack of knowledge about the host country during the offshoring decision	
Underestimations of facts in offshoring decisions (bandwagon effect)	
Over-estimation of cost savings during the offshoring	

decision making	

If you have ticked other, please specify _____

Section 3: barriers of reshoring

18. What are the barriers of moving manufacturing back to home country?

Global competitive dynamics Barriers	
Economic differences	
Instability in exchange rates	
Large differences in resource availability	
Host country Barriers	
Risk of losing access to market	
Risk of losing access to raw-materials and components that are only available in the host country	
Risk of losing supplier knowledge	
Home country Barriers	
Stricter environmental legislation	
Lack or shortage of raw-materials and components	
Lack or shortage of highly skilled staff	
Lack of flexibility in the labour market	
Supply chain Barriers	
Growing demand for and shortages of accessible transportation	
Inability to provide services related to the product	
Increased demands on customization	
Firm-specific Barriers	
Too late or too costly to go back to home country	
Difficulties in implementing reshoring process	
Lack of capacity, resources and internal competencies	
Lack of proper decision support	
Lack of information and communication about reshoring within the business	

If you have ticked other, please specify _____

19. Did any of the barriers affect the decision-making process?

Comment box

20. What did the company do to overcome the barriers?

Comment box

Section 4: decision-making process

21. How did the company manage the decisions-making process?

Internally	
Externally	
Both	

22. Internally, who was responsible for the decisions?

Boardroom	
Manager (including operation manager, supply chain manager, logistic managers)	
Supervisor	
Other decision makers	

23. Externally, who was responsible for the decisions?

ReshoreUK.com	
Government guidance	
Industrial engineering associations	
Other institutions such as banks	
All of the above	
Other	

If you ticked other, please specify

24. Did the company use any for these platforms to help with the decision-making?

Acetool.commerce.gov	
Cdf-oplab.unil.ch	
Reshorenow.org	

25. Did the company recruit anyone specifically to assist with the relocation decisions?

Yes	
No	

If yes, can you specify what was the role of this employee(s) in few words?

Comment box

26. Did your company use any software to manage the decisions making?
If yes, can you specify please

Comment box

27. How long did it take your company to completely move from the host country to the home country

Less than 1 year	
Between 1 and 2 years	
Between 2 and 5 years	
More than 5 years	

28. What is the disintegration strategy (exit modes) the company implemented to leave the host country?

Selling the owned manufacturing and machinery	

Closing down the owned manufacturing and selling machinery	
Closing down the owned manufacturing and transferring machinery to home country	
Releasing the non-owned manufacturing and selling machinery	
Releasing the non-owned manufacturing and moving machinery back home	

29. What is the type of reshoring the company adopted?

In-house reshoring (Fully owned facility)	
Reshoring for outsourcing	
Reshoring for insourcing	
Outsourced reshoring	

30. What is the re-integration strategy (entry modes) your company implemented to re-enter the UK?

Captive	
Alliances	
Partnership	
Joint Ventures	
Merger	
Greenfield Investments	
Ownership participation	
Complete acquisition	

31. Please can you indicate to what extent did your company improve the following drivers?

1. Strongly Disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree

1. Strongly Disagree, and 5. Strongly agree	1	2	3	4	5
Manufacturing and production cost					
Total landed cost					
Logistic cost					
Delivery cost					
Quality					
Product customisation					
Product flexibility					
Production lead time					
Delivery speed					
Volume flexibility					
Productivity					
New product innovation					
Access to skilled labour					

Interview questions

Subject: Participation in a DBA student research through an interview
Study Title: Reshoring Process of Manufacturing Ventures in the UK:
An Emergent Theory Perspective
Name of the Researcher: Laila Maazouz
Supervised by Dr Nandish Patel and Dr Daba Chowdhury

Sir/Madam,

I am kindly inviting you to take part of my research for my DBA thesis. Before you decide, please take the time to read the following information. First, you need to understand why the study is being done and what it would involve for you and others. The research I'm conducting is about Reshoring Manufacturing. This research is focused on UK reshored manufacturing. Facts are the understanding of reshoring is insufficient in terms of data, and still lacks clarity. Being part of this research will increase knowledge of manufacturing reshoring in the UK. This may be helpful for your company and future location decision strategies. Your participation, combined with the participation of others, may contribute to a clearer understanding of manufacturing reshoring in the UK, and you will contribute to a development of a conceptual framework. Eventually, this later will assist future managerial decisions, and improve the UK manufacturing location decisions. More successful reshoring stories will then result in a stronger manufacturing industry, and a more prosperous and powerful country.
It is entirely up to you to decide. If you choose to participate, and before you provide answers to our questions, you will need to sign a consent form (Section 3) to provide agreement to take part in this study. The interview is going to be approximately 20 min to 30 min.

If you need more details and information about the research, please feel free to get in touch with my supervisors or myself in the following emails:

Laila Maazouz: 1705472@student.uwtsd.ac.uk
Dr Daba Chowdhury: d.chowdhury@uwtsd.ac.uk
Dr Nandish Patel: nandish.patel@uwtsd.ac.uk

Interview Consent Form

Research Title: The Drivers and Barriers to Corporate Re-shoring in Manufacturing in the UK

- I confirm that I am 18 years of age or older.
- I confirm that my participation in this research project is voluntary.
- I understand that I will not receive any payments for participating in this research interview.
- I have the right to decline to answer any question or to end the interview.
- I confirm that the research interview will last approximately 30-45 minutes.

- I understand that the researcher will not identify my name in any reports using information obtained from this interview and that my confidentiality as a participant in this study will remain secure.
- I understand that my information will be held and processed for the purposes of this research, publication in academic journals and presentations in academic conferences.
- I have read and understood the details about the purpose of this research.
- I have been provided a copy of the ethical form.
- I have been given a copy of the consent form.

Participant Name: Researcher Name: Laila Maazouz
Date: Date:

Interview Date:
Participant number:
Company Name:

Part I: Information about the Company

1. Please can you specify the industry of the company?

_____

2. Please can you specify the number of employees in your company?

_____

3. Please can you indicate the legal structure of the company?

_____

4. What is the management level of your current position?

_____

5. Please specify how many years you have worked in the company

_____

6. Can you specify when did your company re-shore the business manufacturing back to the UK?

_____

Part II: Prior to Reshoring:

7. Can you specify where have you offshored the business operations?

_____

8. Can you specify the motivations for offshoring the business operations?

_____

Part III: Drivers of Reshoring

9. Can you specify if your company have re-shored to correct previous managerial

_____

10. Can you specify the drivers that pushed your company to reshore back to the UK?

_____

11. Can you specify the barriers that your company have faced when reshoring manufacturing?

_____

Part IV: Reshoring Decision Making

12. Can you specify what did your company bring back to UK?

_____

13. Can you specify how did the company reshore the business operation?

_____

14. How did the company manage the decision-making process of reshoring the business activity?

_____

15. How was the decision-making process of reshoring?

_____

16. Did any unexpected event happen in the decision-making and/or implementation?

_____

17. Can you please specify what kind of unexpected events happened?

_____

18. How did the company deal with unpredictability?

_____

19. What were the risks of moving the business operation back home?

_____

20. How did the company manage the risks?

_____

21. How did the company maintain the revenues while reshoring?

_____

22. Can you specify the exit mode/strategy, and reintegration modes/strategy your

_____

23. Can you specify the reintegration modes/strategy your company implemented in the decisions of relocation back to the UK? (E.g. returning to owned factory)

_____

Part V: Impact of Reshoring

24. What did the re-shored activities have translated into in the following 2 years of reshoring (if applicable)?

_____

25. Did reshoring the business activities result in increasing or decreasing the performance of the business?

_____

26. Did your company manage to improve the motive for reshoring? If so, can you explain how?

_____

27. Was your company satisfied about the reshoring?

_____

If you are interested to know the outcomes of this research, please leave your email and I will send you the study at the end.

Many thanks for your participation.

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